

“The Company OSRAM “

OSRAM is a multinational lighting manufacturer with headquarters in Munich, Germany. It is one of the world's two leading light manufacturers in the world. The company covers the entire value chain from components to electronic control gears as well as complete luminaires, light management systems and lighting solutions.

OSRAM was founded on July 1, 1919 by the merger of the incandescent lamp manufacturing activities of AEG, Siemens & Halske AG and Deut.Gasglühlicht-Anstalt (Auer - Gesellschaft).

The OSRAM brand was registered on April 17, 1906 in Berlin by the Auer-Gesellschaft. At that time, Osmium and Wolfram were needed to produce filaments. The company name: OSRAM Werke GmbH was created combining the names of these two materials. The company logo is a symbolized lamp, which is not only the universal symbol for light but also represents good ideas.

On July 8, 2013, OSRAM was spun off from Siemens and listed on the Frankfurt Stock Exchange.

More than 70% of OSRAM revenue comes from energy efficient products. The company's business activities have been focusing on light for over 100 years.

OSRAM is a leading player across for classic lighting as well as new technologies.

With LED-based products making up a share of about 46 percent of the total turnover, the company is setting trends with regard to technological changes in the lighting market.

The expenditure for research and development is at approximately 7 % of the turnover.

OSRAM is the world's number one supplier of automotive lamps and LEDs for vehicles.

OSRAM is also one of the market leaders in the field of electronic control gear for lamps and Electronic Drivers for LED systems.

Business with optical semiconductors is growing rapidly and has taken on major strategic importance.

At their site in Garching / Munich, OSRAM develops electronic ballasts to dim fluorescent lamps , electronic Drivers for LED Systems and components for light management systems. The daughter Company Siteco, a leading producer of technical indoor- and outdoor lighting and client oriented lighting solutions, is stationed at the site in Traunreut.



Figure 1 OSRAM company logo

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Arbeitstitel

Determination and TCO Evaluation of Production Output Improvements @ Electronics Production with the minimum of resources

Ausgangssituation / Randbedingungen

The need to reduce the quantity of resources used while increasing production output is key. Therefore we need to improve the productivity of resources (Material & Energy).

As result we want manufacture as much as possible from the use of a given quantity of raw materials and energy.

A paradigm change is needed to achieve this:

Instead of “maximum profit from the minimum of capital” we need to achieve “maximum profit from the minimum of resources”.

Whatever waste or heat there is in a process must be determined and evaluated within the different manufacturing process.

The specific final energy consumption in manufacturing industries in Germany was reduced by 64 % between 1960 and 2000.

Prerequisites for these increases in resource efficiency were and still are technological innovations.

Companies that are acquiring a cost advantage today through efficiency technologies will further consolidate this advantage in the future.

Arbeitspakete: Determination and TCO Evaluation of Production Output Improvements @ Electronics Production the minimum of resources

Evaluation Points:

- Evaluation of current state of Production and Material flow at Electronic LED Driver production. Time study evaluation, Value add analyze & Production Layout analyze
- Determination of possible Production Output Improvements: Automation Concepts, Bottleneck elimination, Machine up time improvements, Planned Maintenance strategy,
- Benchmark of Different solutions with dedicated TCO calculation (based on volume, stock costs, operator costs)
- Define together with global Manufacturing responsible the final Project implementation strategy
- Implement evaluated measures at production line at Bulgaria
- Finalize Output Improvement Calculation and Saving overview
- Prepare Management Presentation

Lösungsansatz / Aufgabenstellung

Phase 1

Define and Analyze Current State at Electronic LED Drivers production

Phase 2

Define & implement of measures for Production Output Improvements with the minimum of resources, Saving calculation

Standort

OSRAM Garching

OSRAM Bulgarien

Besondere Anforderungen

MS-Produkte (vor allem Excel, Powerpoint)

Gute physikalische Grundkenntnisse

Verständnis Technischer Zusammenhänge & Lean Manufacturing

Ideale Teamgröße: 2-3 Studierende