BMR: SIMULATION, ANALYSIS, DESIGN AND DIGITIZATION OF THE FINISHING LINE

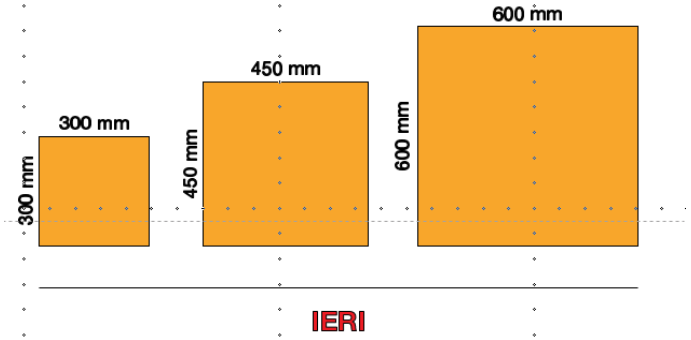
IDEAS TECHNOLOGY RESOURCES HISTORY THE ESSENCE OF LEADERSHIP

TECNA WEBINAR - Digital Factory in ceramica

INDEX

FROM TRADITION TO DIGITIZATION

PAST



TRADITIONAL Glazing and Decoration

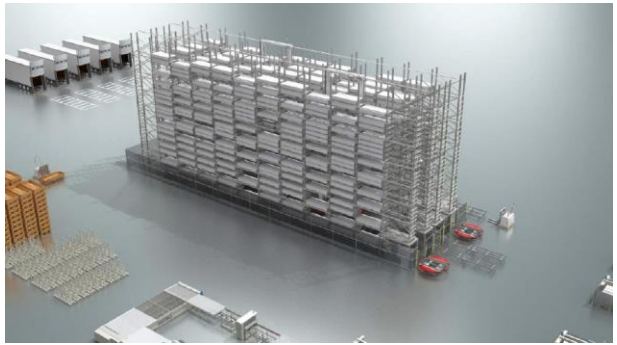
TRADITIONAL FINISHING LINE

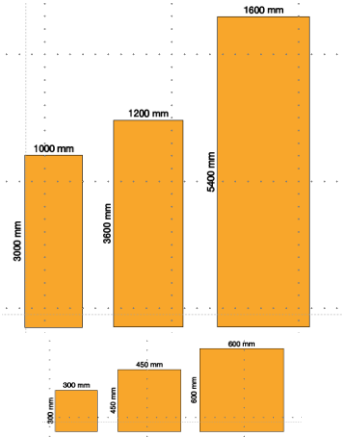
WET

Finishing, cutting and squaring operations were almost always performed externally by third-party companies.

FROM TRADITION TO DIGITIZATION

YESTERDAY

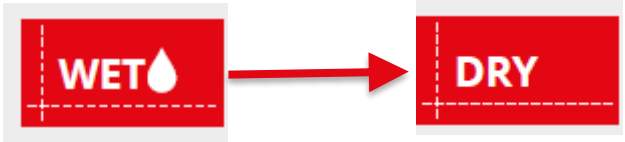




DIGITAL Glazing and Decoration

Product Storage

DIGITAL FINISHING LINE



The finishing, cutting and squaring processes are almost completely inside the ceramic factory.

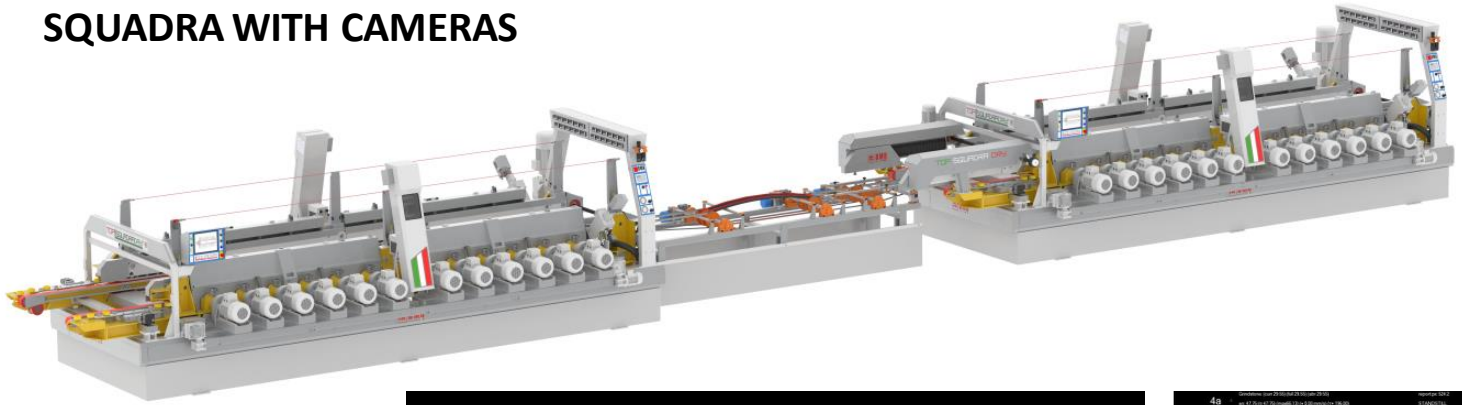
BMR: SIMULATION, ANALYSIS, DESIGN AND DIGITIZATION OF THE FINISHING LINE

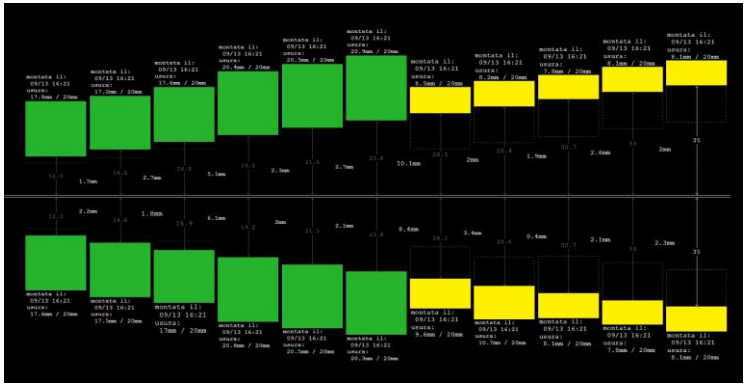
DIGITAL SIMULATION – MAKE TO ORDER

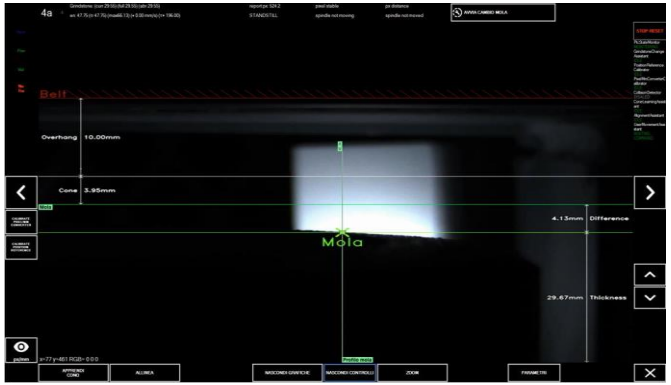
VIDEO 1

FROM TRADITION TO DIGITIZATION

SQUADRA WITH CAMERAS







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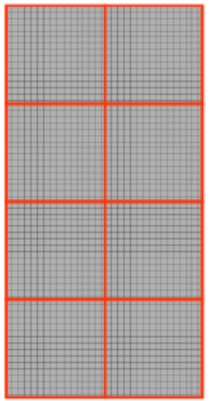
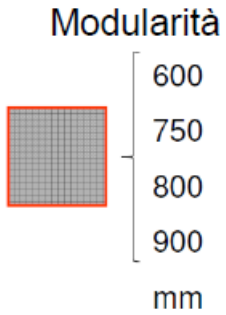
FROM TRADITION TO DIGITIZATION

TODAY





Modularity of large and semi-finished slabs

Advanced logistics

Increased efficiency

Work remotely

The finishing, cutting and squaring processes are all inside the ceramic factory.

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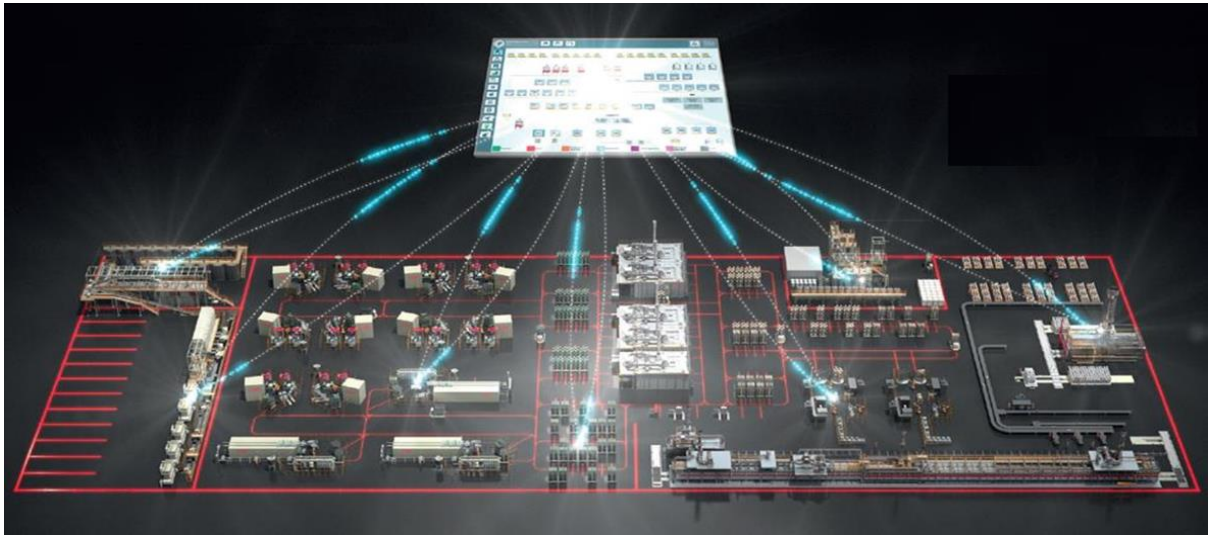
FROM TRADITION TO DIGITIZATION



Interconnection between machines and departments

Data analysis

Process simulators

DIGITAL FACTORY

BMR: SIMULATION, ANALYSIS, DESIGN AND DIGITIZATION OF THE FINISHING LINE

FROM TRADITION TO DIGITIZATION

DIGITAL FACTORY

DYNAMIC | SUSTAINABLE | EFFICIENT | INTERCONNECTED

- Increased requests for product customization
- Small batches
- Reduction of the life cycle of products
- Increasing complexity of products
- Economy: growth or recession

PROCESS CONTROL WITH MANAGEMENT, SIMULATION AND ANALYSIS OF PRODUCTION DATA

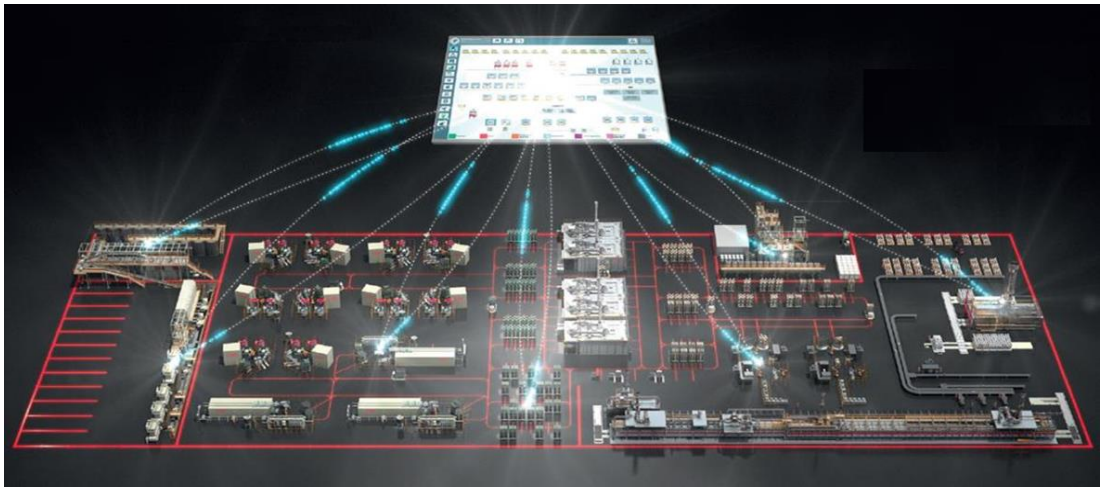
SERVICE QUALITY BMR

Supervisor PC that displays all the data relating to the main BMR machines and can contain all the production recipes.

There will be a dedicated page for each machine on the pc (if other machines are added to the line) with data relating to pieces in input and output, alarm time, machine status, pieces per minute, recipe in use, etc.

SUPERVISOR WITH DATA CONCENTRATOR

It applies to all machines in the BMR plant and not. The data from the BMR line are collected by a **PLC Data Concentrator** and sent to a control centre (where the data from all the lines in the system are collected.



WORKING REMOTELY

The possibility of **working remotely** can occur both in the installation and start-up phase, and in the actual production phase.

Thanks to the latest generation of learning technologies and software platforms, the machines can communicate with each other and with operators in natural language, making it easy to **start up the line installed anywhere in the world** through remote-controlled methods.

Cancellation of distances

Qualified technical personnel

Intervene at any time and from any location

Just in time

Always better quality: support, production, efficiency.

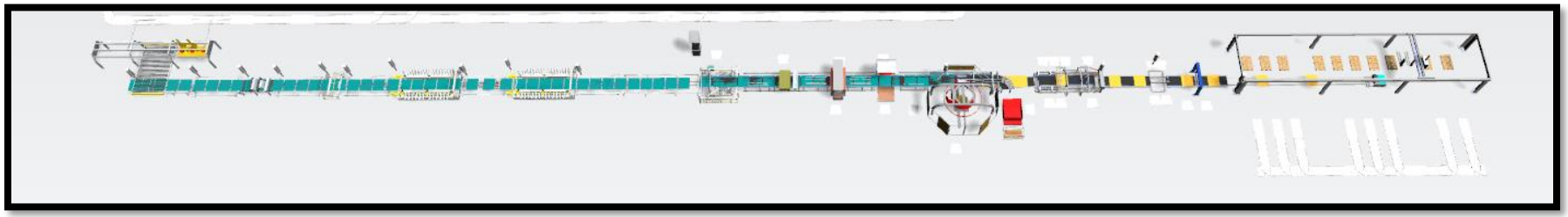
DIGITAL SIMULATION

BMR: SIMULATION, ANALYSIS, DESIGN AND DIGITIZATION OF THE FINISHING LINE

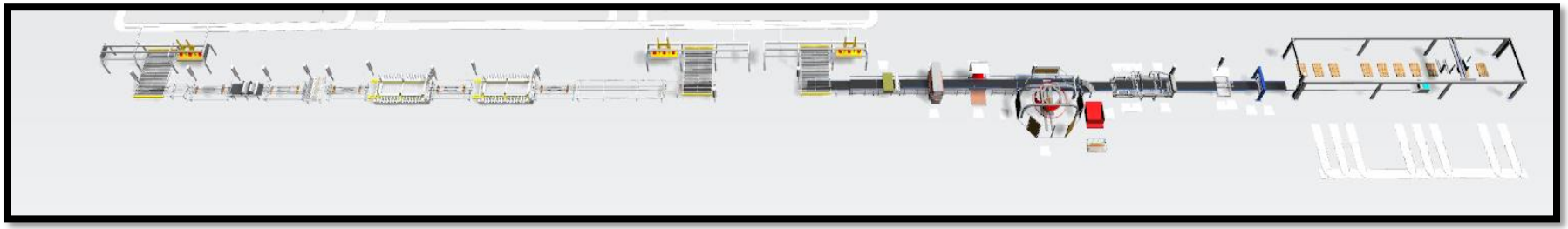
VIDEO 2

DIGITAL SIMULATION – INDIPENDENT ISLANDS AND INTEGRATED LINE

Evaluation and comparison of **KPI** layout with **independent islands** and **integrated line** against different production scenarios in the short - medium term.

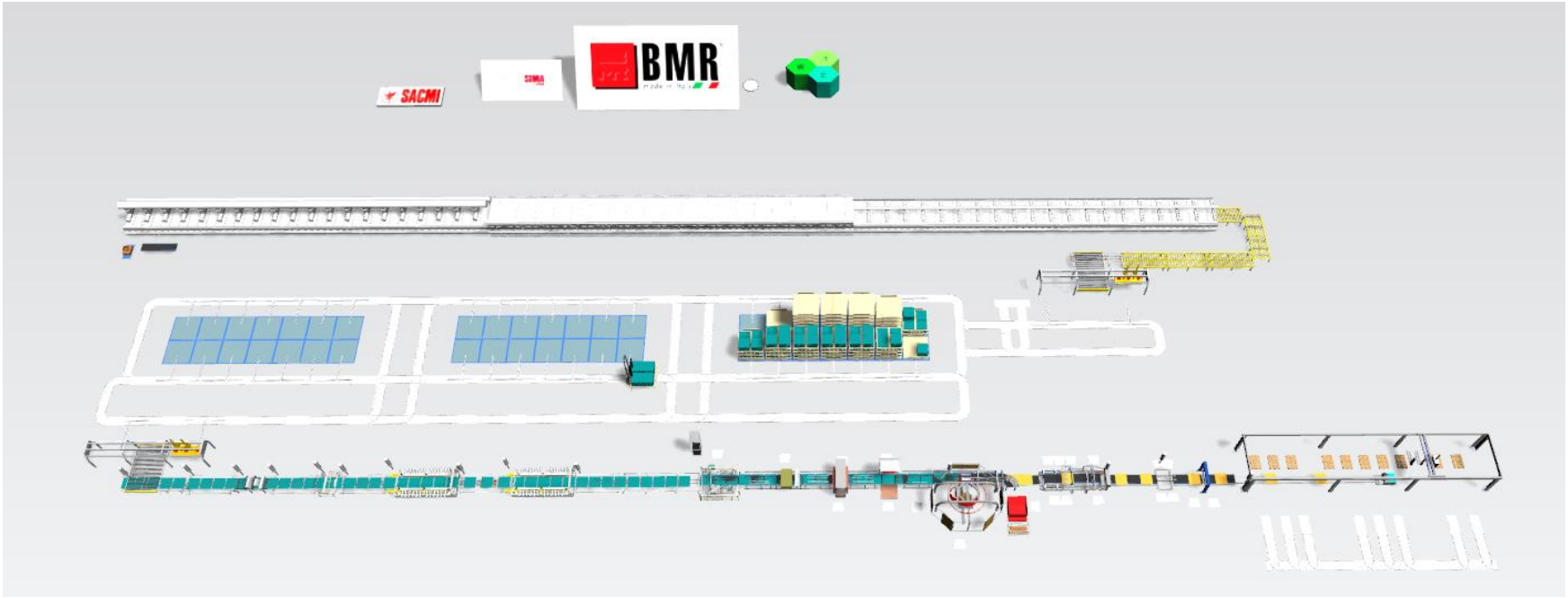


INTEGRATED LINE



ISLANDS

DIGITAL SIMULATION – INDIPENDENT ISLANDS AND INTEGRATED LINE



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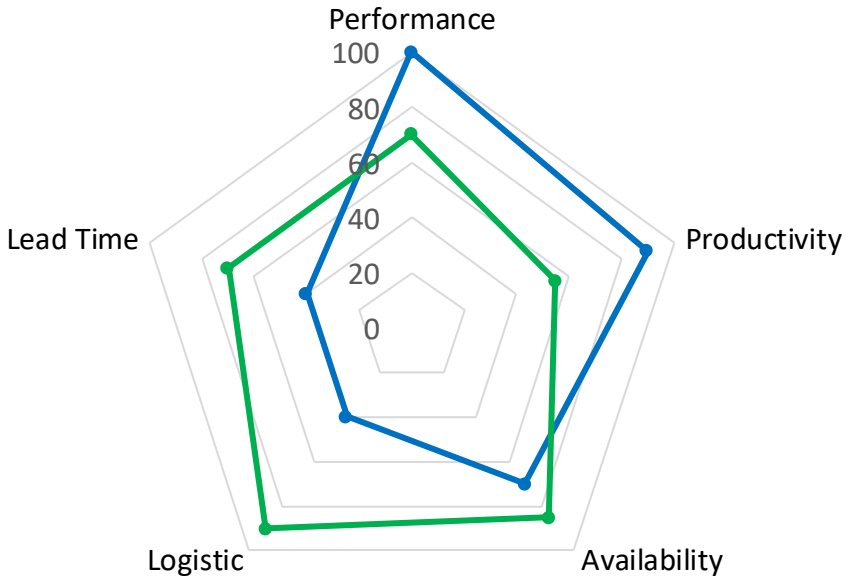
DIGITAL SIMULATION



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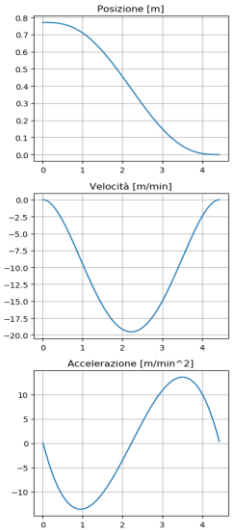
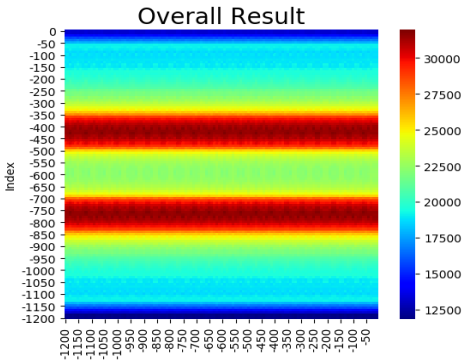
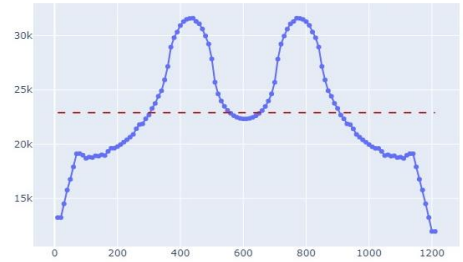
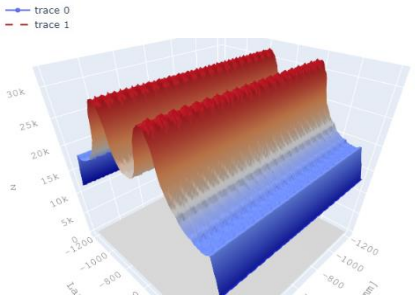
DIGITAL SIMULATION – LAPPING









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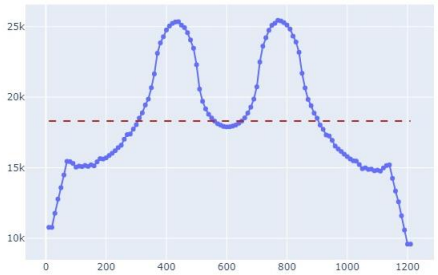
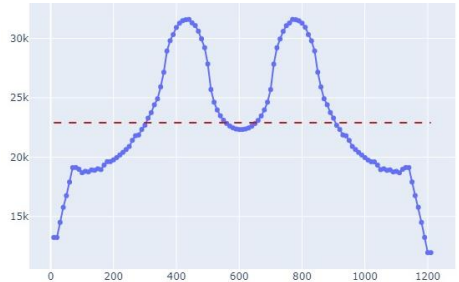
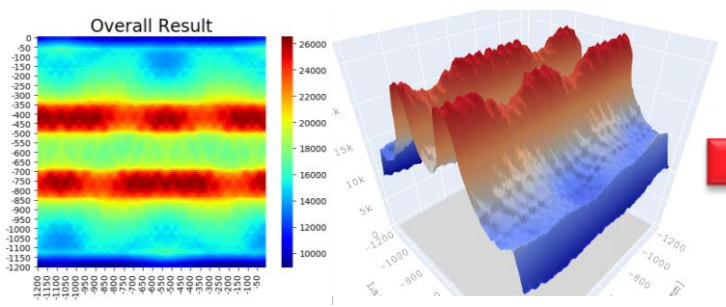
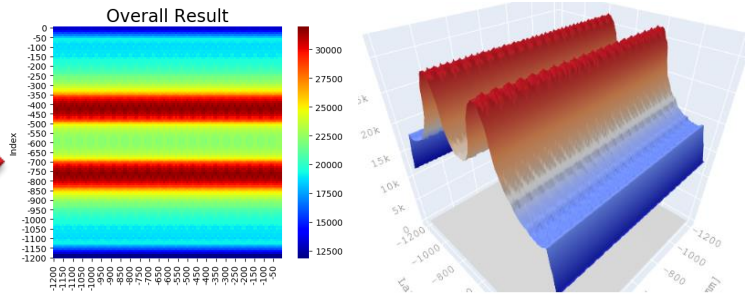


Analysis of the working process







Optimisation of the process

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VIDEO 3

THANK YOU FOR YOUR ATTENTION

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