NOA

NORLEAN OPERATIONS ANALYZER

DIGITAL TWIN OF AN ORGANIZATION

To make your best decisions

NORLEAN

2023


Simulation
/Virtual Reality/
Digital Twin?
36.000 b.c.

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One of the **18 companies world leaders** in the **DTO sector**.

Gartner DTO Market Guide 2021

Vendor	Product, Service or Solution Name	Background
Ardoq	Ardoq	Enterprise Architecture
Arrayworks	Transformation Acceleration Platform	EBPA/Strategy to Execution
Bee360	Bee360	IT Operating System
Bi77design	Enterprise Studio and Hori77on	EBPA/Enterprise Architecture
BOC Group	ADONIS	EBPA/Business Process Analysis
BusinessOptix	BusinessOptix	EDPA/Strategy to Execution
Celonis	Celonis Execution Management System	Process Mining
Corporater	Corporater Business Management Platform	Enterprise Performance Management
Cosmo Tech	Cosmo Tech Simulation Digital Twin platform	Manufacturing Digital Twin
EOV	SPHERAes	Enterprise Risk Management
Holocentric	Holocentric Business Management System (BMS)	EBPA/Strategy to Execution
iGrafx	iGrafx Business Transformation Platform	EDPA/Business Process Analysis
Interfacing Technologies	Enterprise Process Center (EPC)	EBPA/Strategy to Execution
Mavim	Mavim Intelligent Transformation Platform	EBPA/Strategy to Execution
Norlean	Norlean Operations Analyzer (NOA)	Manufacturing Digital Twin
Ortelius	Ortelius Continuum DTO platform	EBPA/Strategy to Execution
Signavio	Signavio Business Transformation Suite	EBPA/Business Process Analysis
Software AG	ARIS	EBPA/Strategy to Execution

The background refers to the market where the vendor is coming from. The EBPA market has been further specified along the use case, showing EBPA/use case.

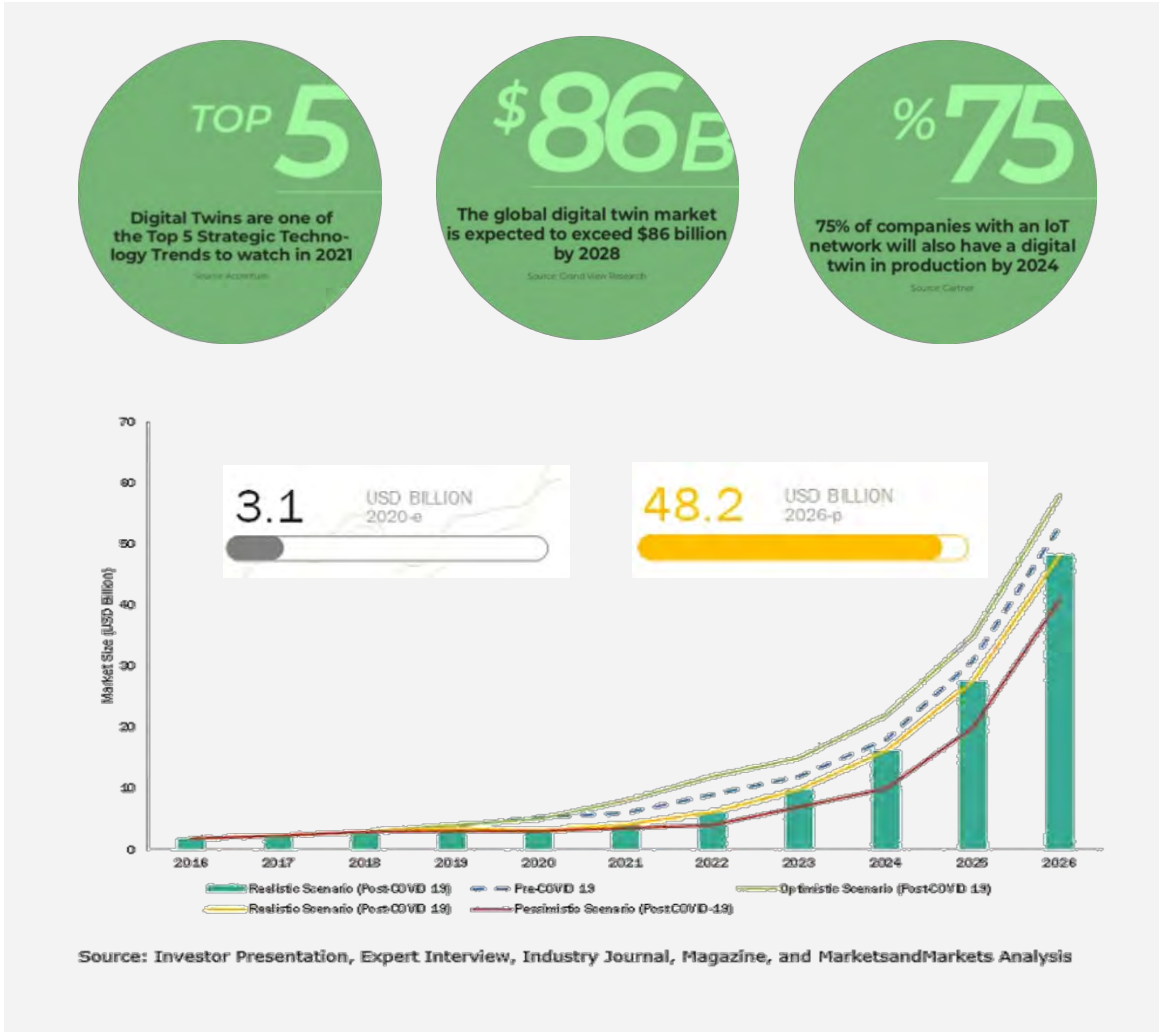
Source: Gartner (July 2021)

Gartner

Market Guide for Technologies Supporting a Digital Twin of an Organization

Published 13 July 2021 - ID G00742227 - 43 min read

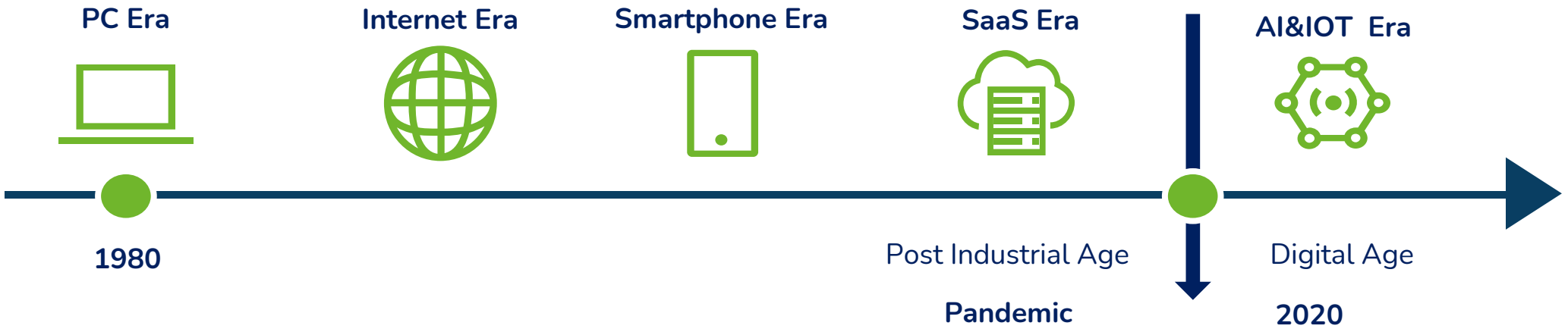
By Analyst(s): Marc Kerremans, Tushar Srivastava



Source: Investor Presentation, Expert Interview, Industry Journal, Magazine, and MarketsandMarkets Analysis

WHAT IS THE PROBLEM?

The advance of de digitalization doesn't stop



How do I work with 50% of the staff due to the **Covid situation**?

How do I **manufacture** if I lack raw material?

What happens if I **change** the **Layout** of my organization?

How do I **manufacture** if the **price of electricity** goes **up**?

SOLUTION
Digital TWIN of an Organization - DTO

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DATA

DESIGN / CALCULATION

DECISION

INPUTS

- CSV
- ERP
- IOT
- XLS

- BIG DATA
- AI
- f (X)

- Compare

- USER

OUTPUTS

KPI's

- Strategy
- Team
- Processes
- Costs

DTO Digital Twin of an organization

Ability **to align business strategy** to **objectives** quickly and easyly

TRACTION
Clients/Alliances

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Clients (+30)

CITROËN
SPB
SERVIZO GALEGO de SAÚDE
Schneider Electric
facsa ciclo integral del agua
GVTARRA grupo riberebro
COREN FRIGOLOURO
BFA Business Factory Auto
GAICTECH THE CANNING MACHINERY COMPANY MADE TO FIT
Estrella Galicia
Megatech
CHR
dominguez El sabor de los que saben
egalsa soluciones de envasado
vitralba
Rotogal
porexgal
JJCHICOLINO
RECENSE la fijación a su medida

AUTO Results & Benefits

- **Easy** Onboarding
- **Flexible** Solution
- **High** increase in **productivity**
- **Payback < 1 year**

PSA GROUPE
CIE Legazpi
grupo marsan COATING APPLICATIONS FOR THE FUTURE
GH CRANES & COMPONENTS
Megatech

COMPETITORS/VALUE PROPOSITION

Legacy, PLM, 2D

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Norlean Advantages :

- Cloud & Desktop
- User Interface 2D & 3D
- Less time of onboarding
- Simulation & Optimization
- AI & ML

LEGACY

Mostly not Cloud

Simio, FlexSim, ProModel, witness, SLINGSHOT, SIMUL8, VISUAL COMPONENTS, SIEMENS Tecnomatix Plant Simulation, anylogic

DTO

No 3D

celonis, COSMOTECH, iGrafx, EsseQuamVideri S.r.l., holocentric, interfacing., BizzDesign, ardoq, software AG, businessoptix, mavim, ARRAYWORKS, Bee360

PLM

Complex use

SIEMENS, ALPHA, EMERSON, Kernel analytics, CONENTO, sas, General Electric, Ansys, Bentley, Microsoft Azure

Customized

Complex

BUSINESS MODEL
PASS - SAAS

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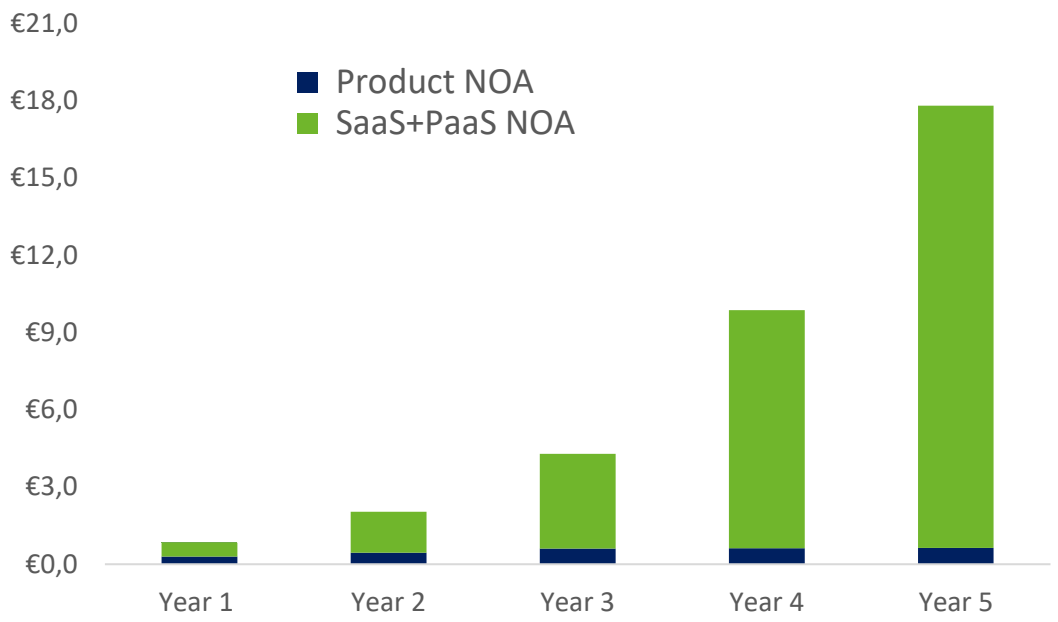
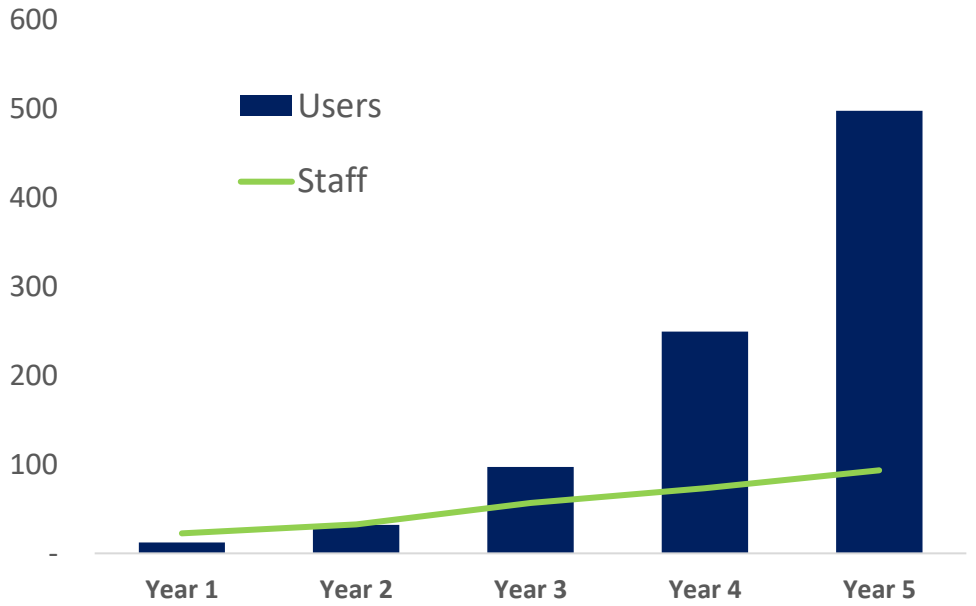
PASS
Use of the platform to create solutions.

SECTORIAL SASS
Quick implementation of the solution with minimal impact. First SaaS already working.

Turnover Mill €



Users Vs Staff



Recurrent revenue in **3- 4 years** : **5.000.000 €**

GO TO MARKET STRATEGY

From **where we are** and towards **where are we going.**

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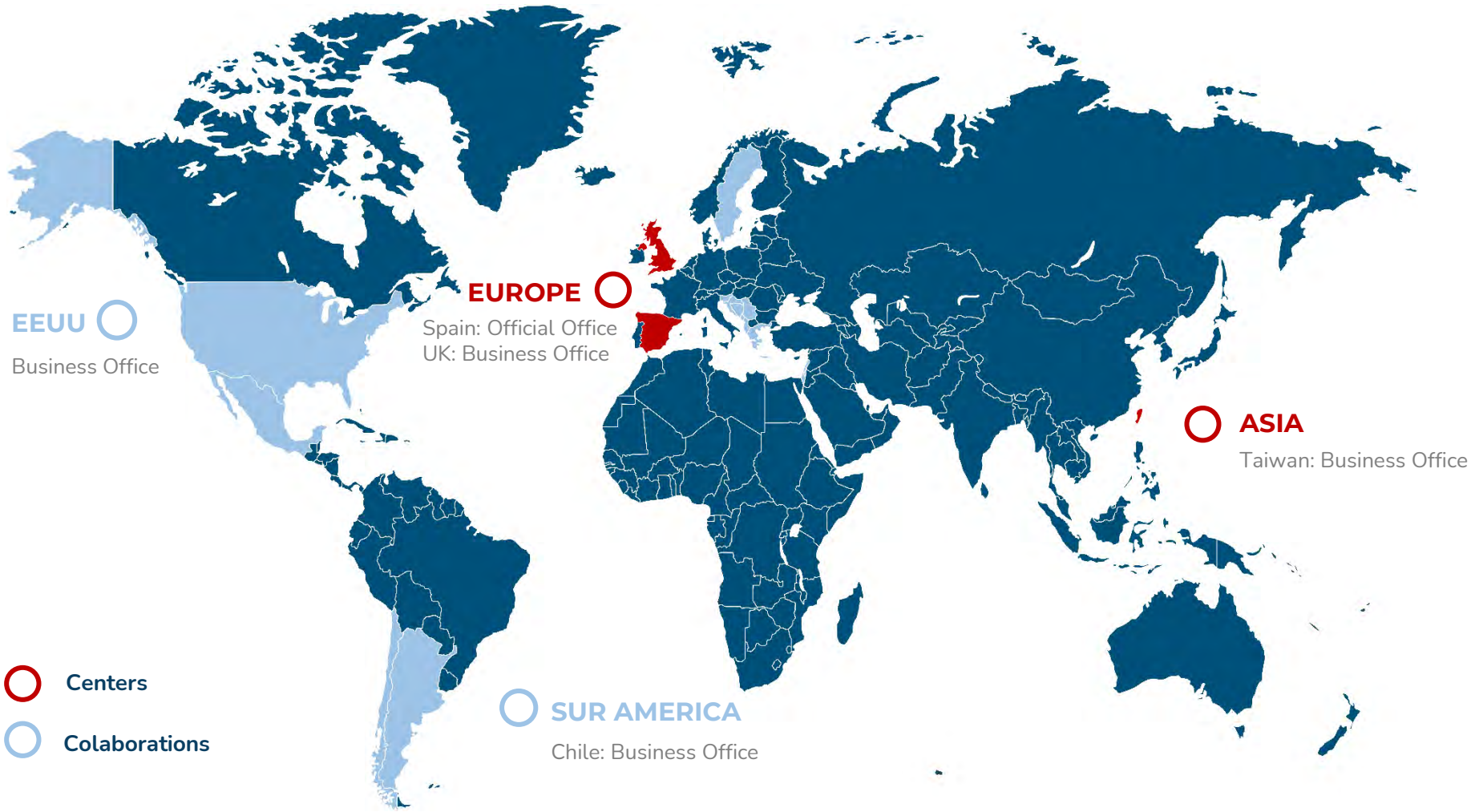

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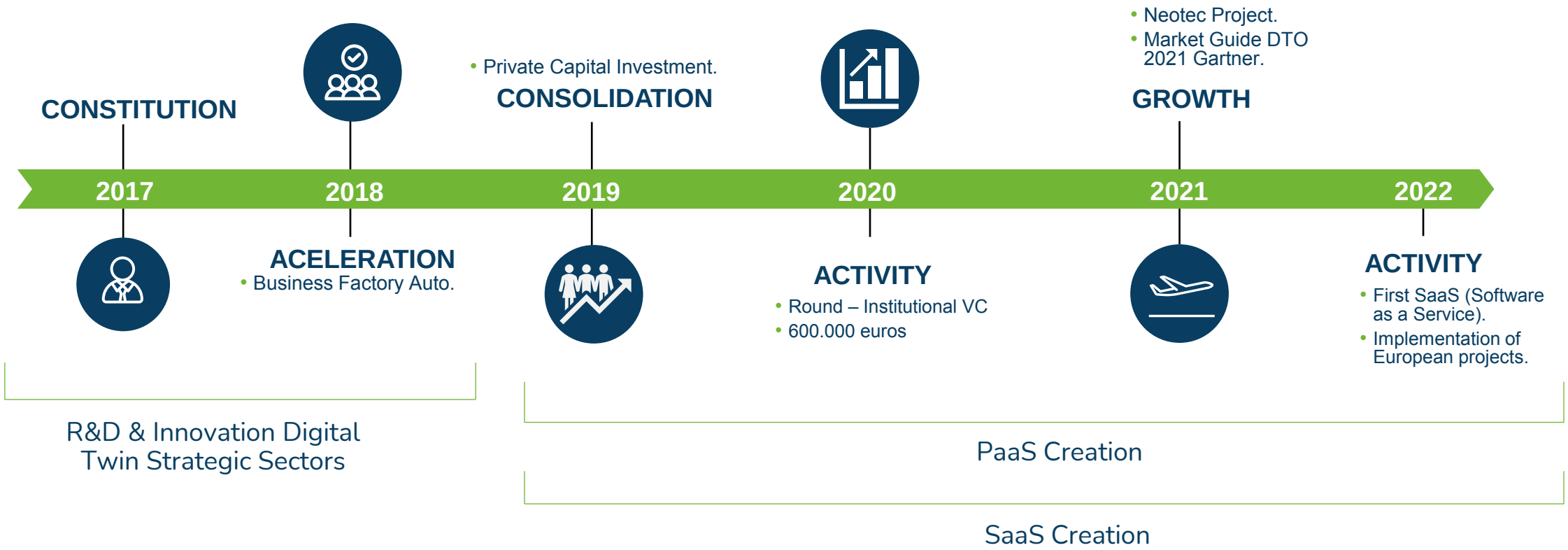
Digital twin **NOA** generate **multiple scenarios** to improve your decisions.



TEAM
Executive

NORLEAN

Executive

Daniel Prieto
CEO - PhD Engineer
Co-founder, 20 years creating and managing technological business.

Héctor Arias
CTO
Industrial Engineer, experience in simulation projects in industry.

Mónica Lopez
CFO Economics
20 years of financial management in middle market companies.

Angelo Eca
COO
Data Scientist, 15 years of simulation and optimization projects.

Maite Gomez
Business Development Market Expert, 30 years of experience commercial strategy

Cristina Gil
Business Development Market Expert, 10 years of experience commercial strategy

Guillermo Thomás de Carranza
Economics Department of Administration

Javier Fernandez
Engineer of simulation and optimization projects.

Cristina Fernandez
Industrial Engineer
Expertise on industrial processes

Alejandro González
Engineer of simulation and optimization projects.

Cristina Pardo
Industrial Engineer
Expertise on industrial processes

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SOME SUCCESS CASSES AND THEIR PRICES*

The prices presented in this document are estimates; they may vary depending on the amount of data to be studied, scenarios to be analyzed or other variables previously defined and negotiated

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2023


Megatech

SUCCESS CASES
MEGATECH

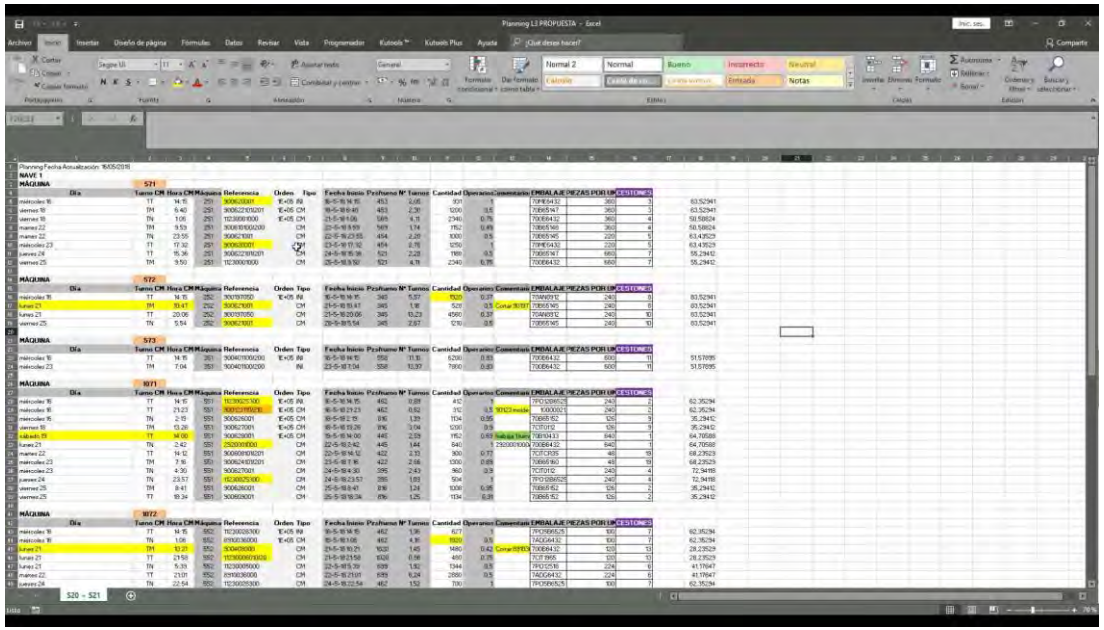
NORLEAN

NEED:

The company needs to **establish a cycle time** to the line 3 of the logistics train that **picks up full baskets of parts** and **replenish them with empty baskets** to **fill a third newly installed line**.

SOLUTION:

Digital twin NOA for the optimization of the internal logistics train



VALUE CONTRIBUTION:

1. **Best train cycle time with new baskets 20 minutes**
2. **Reasonable number of cycles where the train breaks (6).**
3. **KPIs:**
    I. Maximum baskets waiting to be picked up.

INCREASE Operator time off

75,54% ➡ 4.056 h/year

ESTIMATED PRICE:

15.000,00€


PSA PEUGEOT CITROËN
PSA PEUGEOT CITROËN

SUCCESS CASES
PSA Peugeot Citroën

NORLEAN

NEED:

The **company needed** to **know, simulate and improve** its **internal logistics planning** in its **intermediate warehouse** in order **to size the number of AGVs necessary** for its correct operation.

SOLUTION

Digital twin of the warehouse with **all its flows, highlighting the material inputs from the supply trucks, and outputs in synchronism with the production lines** by means of logistic trains, etc.

VALUE CONTRIBUTION:

1. **Permanent analysis** of **production flows. Simulation platform.**
2. **Optimization** of the number of **AGVs.**
3. **Simulation** of **warehouse distribution.**
4. **KPIs:**
   I. Number of warehouse movements
   II. Measurement of AGV battery charge.

Reduction of AGVs : **30%**

ESTIMATED PRICE:

20.000,00€

CIE Legazpi

SUCCESS CASES
CIE Automotive

NORLEAN

NEED:

Have "**optimal" planning / sequencing** of the work to be performed on all machines in the workshop.

Turn Experience into Know How!

SOLUTION

Digital Twin NOA for planning and simulation of **tool shop production.**

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CIE Legazpi

VALUE CONTRIBUTION:

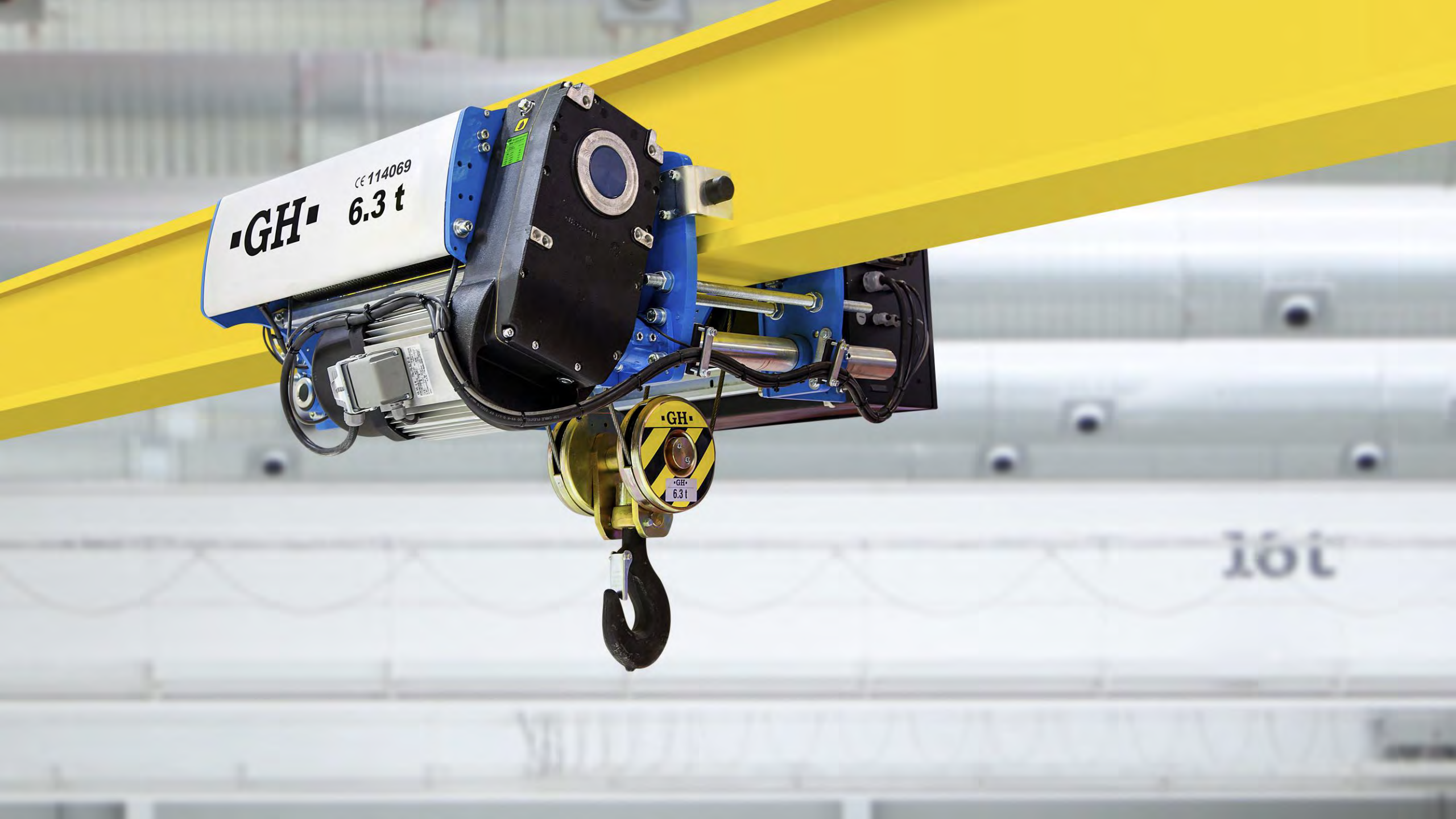
1. **Demand management**
2. **KPIs:**
   I. **Operational Efficiency** (OEE)
   II. Production **turnaround time**

Improvement THEORETICAL PLANNING

5-10%

ESTIMATED PRICE:

30.000,00€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SUCCESS CASES
GH Cranes

NORLEAN

NEED:

Improve and automate your planning process**, high complexity**

300 basic customizations!

SOLUTION:

Digital Twin NOA for **weekly** and **daily planning** of the **hoist assembly cell** and its **simulation**

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·GH·
CRANES & COMPONENTS

VALUE CONTRIBUTION:

1. **Process Improvement.**
2. **Planning tool.**
3. **KPIs:**
   I. **Operational Efficiency** (OEE).
   II. **Lead Time** Improvement

LEAD TIME Improvement: 70%

ESTIMATED PRICE:

30.000,00€


marsan

SUCCESS CASES
MARSAN

NORLEAN

NEED:

The company needs **production planning to improve its productivity** and **customer delivery times**, as well as to **organize** the various **customer and maintenance activities**.

SOLUTION:

Digital twin NOA of production planning

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PRODUCTIVIDAD SUPERIOR

www.norlean.com

VALUE CONTRIBUTION:

1. **Production planner**
2. **Maintenance control and organization.**
3. **Simulation of warehouse layout.**
4. **KPIs:**
   I. Reduction of production times.

OEE Increase : 3,00%

ESTIMATED PRICE:

30.000,00€

SUCCESS CASES
EMPRESA CARNICA

NORLEAN

NEED:

The company needs to **improve the prediction** of hams by type of pig, **establish a relationship** by breed, type, quantity and **weight range and reports to contrast with customer orders.**

SOLUTION:

Digital twin NOA for production planning.

VALUE CONTRIBUTION:

1. Production planning platform.
2. Simulation platform.
3. Simulation platform.
4. **KPIs:**
   I. **Kilos/hour processed.**
   II. **Percentage of meat yield.**

ESTIMATED PRICE:

50.000,00€


facsa
WATERNOLOGY
PRESENCIA DE FACSA
Operadores
732
Edad Media
45,4
Total
1.133
Bajas Laborales
53
Absentismo
5%
Incidencias
1.642
Consumo kWh
10,6M
61k
Instalaciones
463
ETAPs
45
1,6M
Km de Red
5,45k
Abonados
471,3k
602
81,12
Rendimiento de la red
81%
1967
ABASTECIMIENTO
Análisis
7,4k
4,9M
ciclo integral del agua

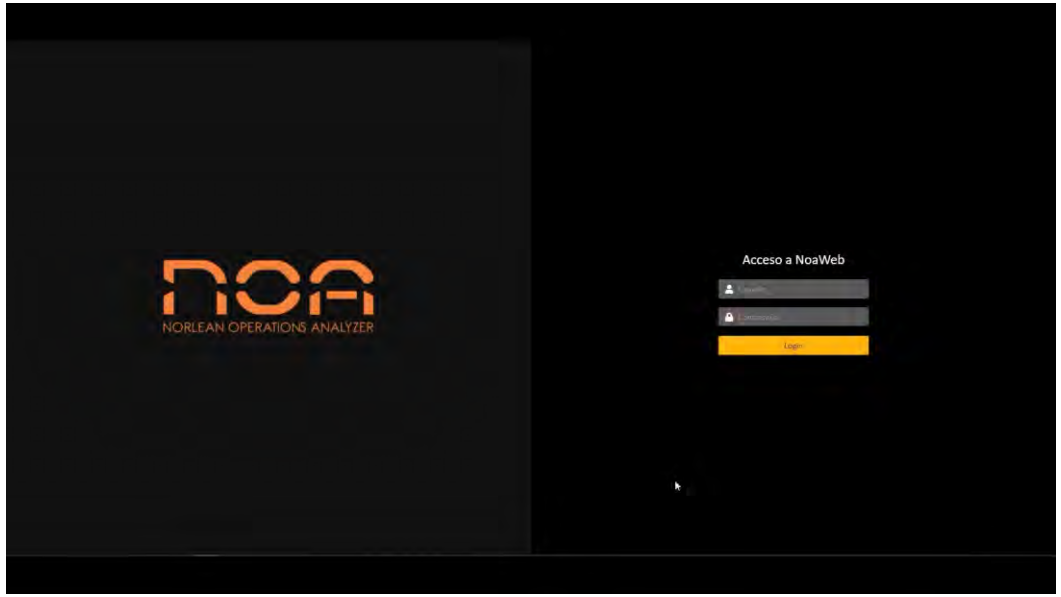
SUCCESS CASES
FACSA

NEED:

The company needs to **simulate the sludge line** to understand the **impact of introducing new cosubstrates, sludge and iron salts**, as well as **energy efficiency and the availability of heat and power generation.**

SOLUTION:

Digital twin NOA for the simulation of the sludge line of a WWTP



VALUE CONTRIBUTION:

1. **Cost and energy** vision
2. **Flexibility to new substrates**
3. **KPIs:**
   I. **Cost-effectiveness of cosubstrates**
   II. **Evaluation of self-consumption.**
   III. **Cosubstrates and sludge analysis**

ESTIMATED PRICE:

50.000,00€


lo@ritme
Lo@ritme
SERVEIS LOGISTICS AIE

SUCCESS CASES
LOGARITME

NORLEAN

NEED:

The company needs to **optimize the procurement planning** of the **items it manages** within its **warehouse and optimize the staffing** required to **execute the various operational** activities.

SOLUTION:

Digital twin NOA for decision making in logistics warehouses.

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VALUE CONTRIBUTION:

1. **Detailed view** of the **receiving, storage and dispatch part.**
2. **Decision support** and **possibility of generating multiple scenarios.**
3. **KPIs:**
   I. Maximum and safety stocks.
   II. Supplier delivery lead times.

ESTIMATED PRICE:

60.000,00€


3433
Schneider
Electric
Shipping &
Receiving
RESERVED
PARKING

SUCCESS CASES
SCHNEIDER ELECTRIC

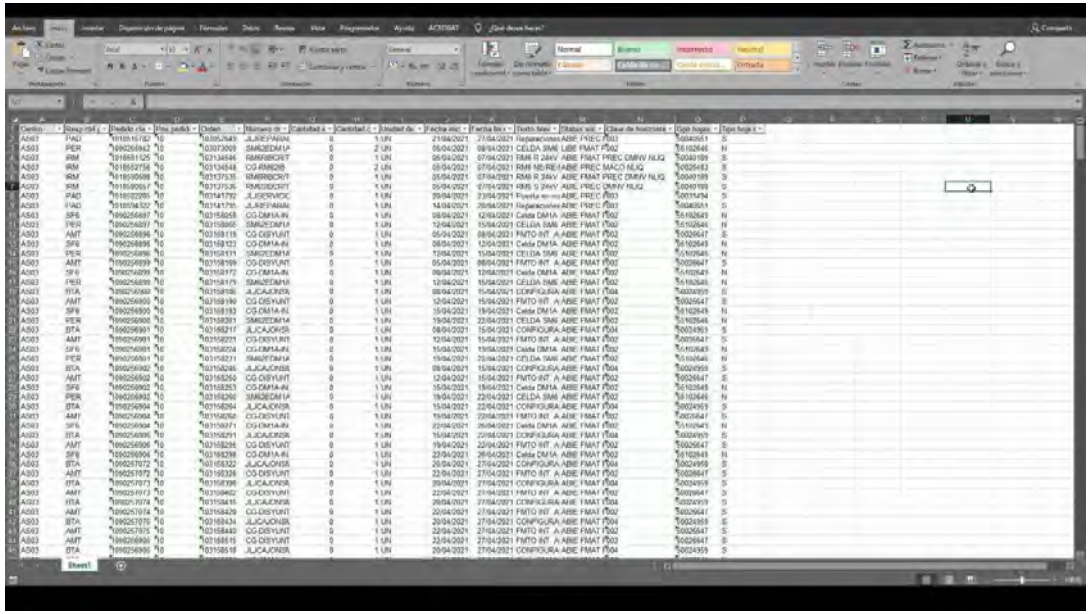
NORLEAN

NEED:

The company needs to know the **daily and weekly planning** of **production lines** and **auxiliary workshops**. **High variability** and **multiple relationships** between auxiliary **workshops and main lines**.

SOLUTION:

Digital twin NOA for production planning of the switchgear hall



VALUE CONTRIBUTION:

1. **Production order and personnel planning**
2. **Smoothing of the workload over the two weeks of production.**
3. **KPIs:**
   I. Visibility of **saturation and bottlenecks.**
   II. Generation of 2-week planning

INCREASED PRODUCTIVITY

7-10%

ESTIMATED PRICE:

60.000,00€


25
26
27
28
29
0

SUCCESS CASES
CASO EMBOTELLADO

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NEED:

The company needs to **optimize the performance and utilization of several of its lines** and **optimize their planning**, taking into **account production costs**.

SOLUTION:

Digital twin NOA to optimize performance and utilization of multiple line

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VALUE CONTRIBUTION:

1. Detailed **view** of **production** and **costs.**
2. Help in **decision making**
3. **KPIs:**
   - **I. Main costs**
   - **II. Total production costs**
   - **III. Cost of storage.**
   - **IV. Cost per factory area**

ESTIMATED PRICE:

60.000,00€


NOA
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THANK YOU!
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2023