

# PRONTEZZA A INDUSTRIA 4.0 PROPOSTA PMI

# MAYS International

FOR COMPETITION WITHOUT BORDERS

### Content



### **INDUSTRIAL READINESS 4.0**

### **PMI PROPOSAL**

Industry 4.0 – Opportunities and challenges

### Proposed approach

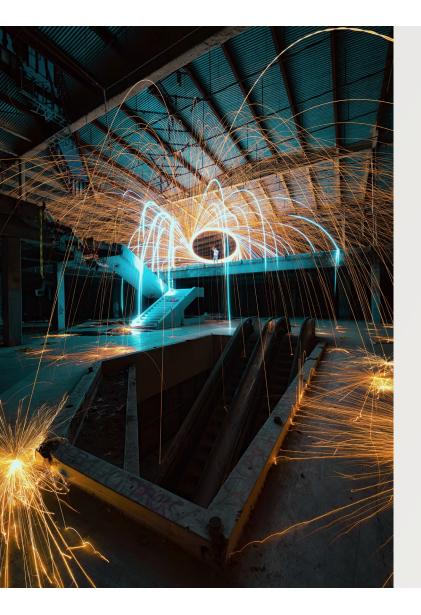
- 0. Pre-analysis of the business model
- 1. Advanced Lean Organization
- 2. Production Technical Standards
- 3. Change management
- 4. Data management

**Expected results** 

Services and tools



# Industry 4.0



### **OPPORTUNITIES AND CHALLENGES**

There is an evolving trend to see in manufacturing, in particular Industry 4.0, an environment where efficiency and added value are the result of innovation in the organization, methods and industrial techniques and the ability to promote data and information exchange throughout the organization.

The conditions needed to really be able to benefit from the advantages of Industry 4.0 (enhance productivity, flexibility, speed and quality) are more organizational, technical and cultural than technological.

How do you evolve your company and quickly make it ready to apply Industry 4.0 productively?



# Industry 4.0



### "WHAT NOT TO DO"

- Introduce machines and devices to create point efficiencies instead of developing an integrated and intelligent organization
- Think that technologies can substitute people

### "WHAT TO DO"

Evolve contemporarily

- An advanced lean organizational model
- Technical production standards to not digitalize waste
- Competences, leadership
- Management through data



# Proposed approach

# E-ANAL YSES OF E BUSINESS MODEL

### **INDUSTRIAL READINESS 4.0**



### DATA MANAGEMENT

- Awareness on available data to getting information and generate Knowledge
- Organization, strategy and technology analysis reliability

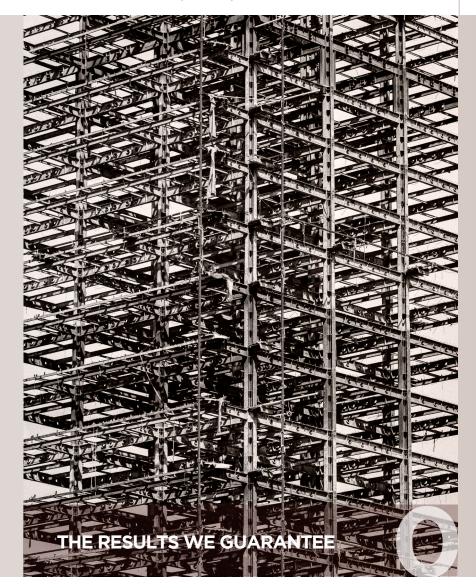


# A shared picture of the company's competitive positioning to correctly select the best among the 4.0 opportunities.

A check of the value chain and identification of the priorities to digitalize the business process.

Evaluating the impact of 4.0 choices on the company's performance (business plan design).

# Pre-analyses of the business model





# Pre-analyses of the business model



### CONSULTANCY

• A check of your competitive positioning: competitors, market/clients, product offered, technologies, other players in the sector and neighboring industries and current and potential partners

• Support in developing evolutionary or disruptive lines of the allowed business model when applying 4.0.

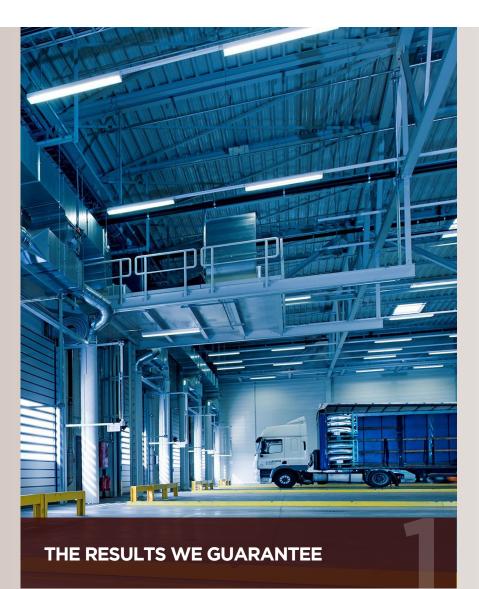
### TRAINING

• Workshops using the Scenario Planning Methodology for the executive team

• Training modules based on Business Model Canvas



### Advanced Lean Organization



### PROCESSES

A fast organization in which activities are carried out following a logical process, eliminating departments, promoting collaboration among functions, simplifying activities, eliminating bottlenecks and reducing waste.

### TEAMS

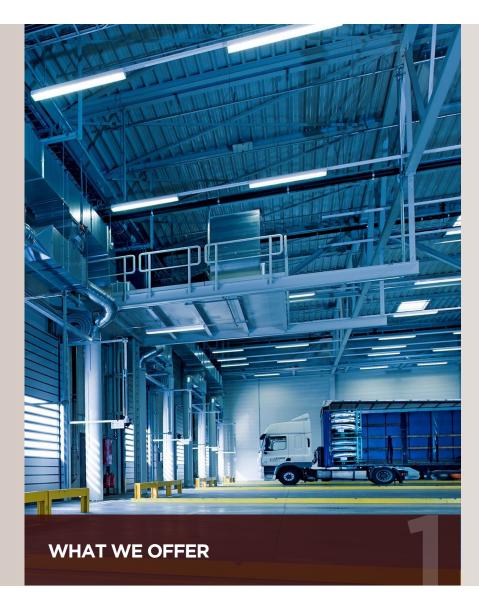
A horizontal organization made up of almost autonomous teams that guarantees technical and operative teams support each other. Information/communication mechanisms among the teams to enhance the network. Roles and competences for the digital transformation.

### KPI

An organization that measures, introduces and communicates the cost, time, quality and flexibility KPI to everyone. Takes data-based decisions.



# Advanced Lean Organization



### CONSULTANCY

• A participated plan for the organizational and management model: processes, teams, job profiles, profile competences, versatility models and job rotation.

• Checking/revision of the operative control system: logics and objects of the controls, KPI

• Identification of problems: market/client/product/process that can be resolved by 4.0 technologies.

### TRAINING

• Routes to 4.0 alphabetization

• Courses in the principles and cases of advanced lean organization

• Models to develop mental agility/plasticity

### TOOLS

• Value stream map

- System of team meetings and meetings among teams
- Visual management system of the teams and factory
- Audit to evaluate organizational-management readiness for Industry 4.0



### Production Technical Standards

# Reduction of waste, costs of processes as a prerequisite of digitalization

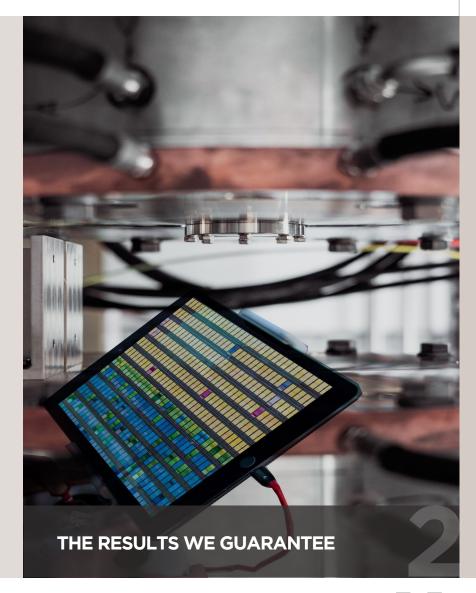
Identifying the relations among the factors: cost, processes that generate waste or losses and the various types of wastes and losses. Projects that use advanced lean methods to eliminate loss and waste prioritized by a costs/benefits analysis.

#### Solution to recurrent production problems

Identification of important losses and recurrent problems that have a strong impact on costs and KPI. A cycle focusing on removing the causes of deviation from standards or to innovate by introducing new standards, also using 4.0 technologies.

# Development of high technical competences and the creation of new knowledge

Identification and development of talents in digital competences found in any area or role. Participation and proactiveness in teams and individuals in solving problems. Acquisition and transferal of best practices.



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# Production Technical Standards

### CONSULTANCY

Profound knowledge of objectives, steps, methods and tools of standard production techniques.

Cost deployment Focused problem solving Workplace organization Maintenance Quality control Logistics Support in implementing Kaizen Teams in model areas and in management

### TRAINING

Alphabetization on the technical standards of advanced lean organization.

Training courses of the company's standard leaders on the steps, methods and tools of the standards.

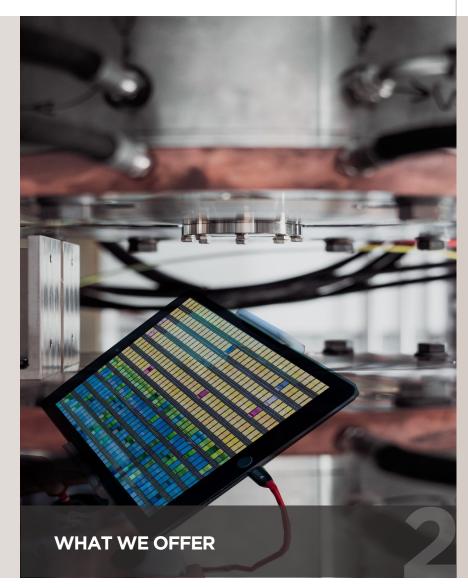
One point lessons for technicians, team leaders and operatives.

### TOOLS

Evaluation systems of implementation levels of advanced lean organizations.

Auditing and scoring models.

System for acquiring and spreading best practices.





# Change Management



### THE RESULTS WE GUARANTEE

#### Open culture to encourage innovation and commitment

Reinforcement of the company's cultural nuclei to facilitate openness to change, the ability to take on risks, the desire to learn and the development of potential.

### Horizontal communication.

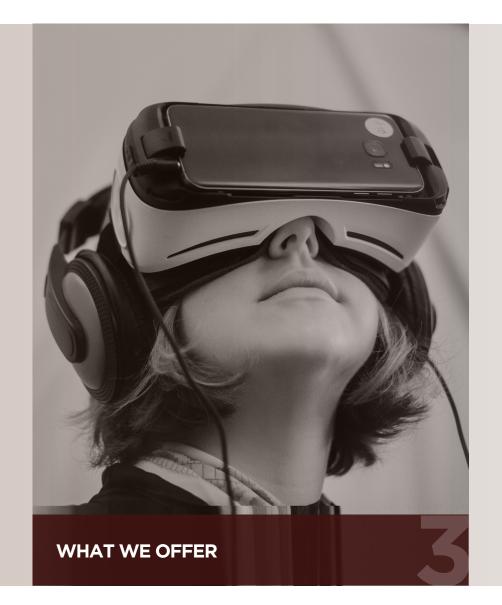
Collaboration within technical teams and more autonomous workers able to make decisions and take on responsibility. The institution a help relationship among team members. Work in transversal teams sharing choices and experiments.

### Spreading leadership.

The creation of an environment of dynamic and proactive leadership, fed by trust among managers, technicians and workers. A context in which one wants to learn, commit and contribute to value creation through frequent role changes and the taking on of new roles.



# Change Management



### CONSULTANCY

Cultural audit.

Workshop to create a shared definition of vision, values and behaviours for the digital transformation (at the level of the director team).

Support in creating events and artefacts (e.g. murals) to spread vision and values.

Definition of behavioural competence profiles expected from team leaders.

### TRAINING

Routes to develop leadership personnel and team leaders. Courses in individual coaching and team coaching. Experience laboratories in empathy, trust and emotion management.

### TOOLS

Competing values framework to diagnose the company culture. TKI-Conflict mode instrument. SEI leadership assessement.



# Data management

Identification and resolution of the gap in the standardization of the computerization of management processes

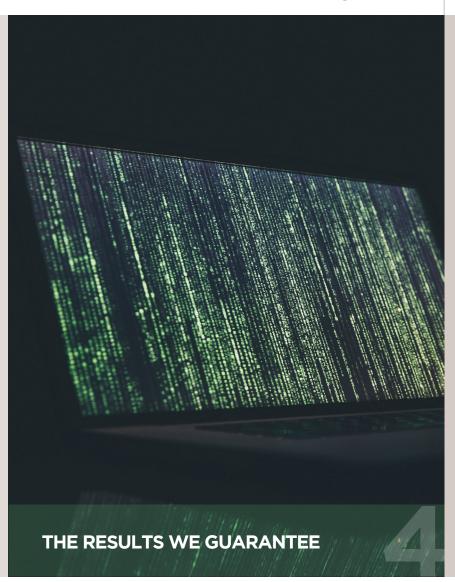
MRP logic in planning needed material Verification of PLM, ERP and CRM integration

### Information and data fundamentals for Industry 4.0

Data availability and trustworthiness of information and use of analytics (big data & machine learning) to support decision taking in the implementation of Industry 4.0

### **Information Assurance**

A careful and informed cyber security process aimed at protecting the company's information and IT systems





# Data management

### CONSULTANCY

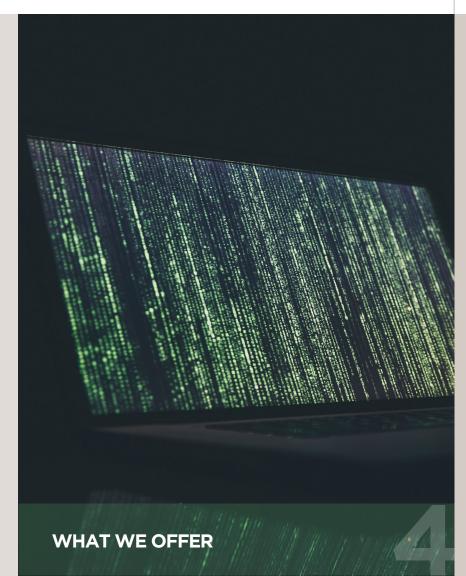
- Assessing data producers (technological and organizational processes), data owners (roles and services) and data users (company services and functions)
- Collection and qualification of managed data, whether internal or external
- Verification of extracted/extractable information
- Analyses of obtained/obtainable knowledge from the collection and analyses of information and data
- Assessment of data architecture (producer) and information architecture (owner and users)
- Cyber security assessment on data and processes

### **DELIVERABLES**

- Representation of data storage architecture
- Map of current practices for data management, information management and knowledge management and then technological and organizational advise on how to improve these
- Suggestions on data protection (cyber security and information assurance)
- Suggestions for medium and long term developments in changing business objectives, business models and organizational models

### TOOLS

• Platform for cybersecurity assessment





### Strategy&Organization Unit

We are a group of university professors and consultants with long experience in guiding large groups, small and medium companies and public administration structures as they design and manage projects to focus their strategies; innovate their business model, products/services and/or organization. Our distinctive characteristic is knowing how to integrate hard competences with soft skills to obtain significant and sustainable results, bringing together business objectives with a valorization of people.



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