



Integrated  
Consulting  
Group

Your Partner in Change.

# Lean Performance

## Innovative production optimisation

Offer from ICG-Capability

# OUR STORY: LEAN PERFORMANCE



## WE SET UP A VALUE STREAM ACCORDING TO CUSTOMER REQUIREMENTS, WITH ACTIVE INVOLVEMENT OF ALL EMPLOYEES AND MINIMUM OPERATING COSTS

Truly Lean manufacturing can meet customer requirements on time, to the required quality and at minimum cost. We understand very well that customer requirements are constantly changing and mass production has no future.

Therefore, we do not focus on the mere implementation of lean manufacturing tools, which is still traditionally attempted by companies. We look for the energy line of the entire value stream and use Lean tools only to remove obstacles on the way to a jointly defined target state of the entire Lean process.

The target state of the entire value stream can respond to the changing environment and customer requirements. All employees involved know and actively fulfill their roles.

We can unleash a huge amount of energy from your people and keep the momentum going even after the initial enthusiasm has waned. We never weigh activities on a one-man show, but involve the whole team.

Together with your people, we design breakthrough changes and an action plan to test their functionality. Once the solution is debugged, we manage the final implementation of the actions and ensure adoption. We standardize the new hire onboarding process for all roles in the organization. We set up routines to ensure long-term sustainability of the new state and its improvement, including active involvement of management and supporting departments.

**"The demand has increased and we are not able to produce. We need to increase throughput and process efficiency."**

**"Our processes and facilities are currently not optimally utilised"**

**"How do we react to rapidly changing demand and adapt our processes quickly?"**

**"How to ensure production with fewer employees?"**

**Situations we deal with**



# THE GOALS WE WILL ACHIEVE TOGETHER



In each project, we will select the key objectives that we will guarantee for you at the time of assignment. Typical objectives from similar projects are listed below.

## Main goals and benefits



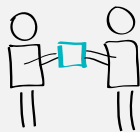
Minimum Lead Time



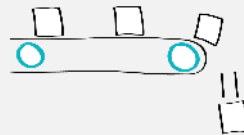
Optimal value of WIP in process (DOH)



Low loss production capacity  
(Equipment availability and product quality)



Maximum shift output



100% on time delivery (OTD)

# EXAMPLES OF BENEFITS FROM SIMILAR PROJECTS



To give you an idea of the specific objectives and their fulfilment, we attach examples of real results achieved with a short description.

## 70%

REDUCTION OF CONVERSION TIME FOR SEMI-MANUAL PROCESSES.

### Impacts:

Increasing the availability of the equipment and thus reducing its loss capacity has created space for the implementation of the preventive maintenance plan and increased shift productivity. At the same time, the rebuild process became more comfortable and transparent, resulting in significantly fewer equipment repairs due to poor quality rebuilds.

### Where:

Production Engineering Company

## 35 min

REDUCE LEAD TIME FROM 1.4 DAYS TO 35 MINUTES IN THE ASSEMBLY PROCESS

### Impacts:

The overall production capacity was significantly increased, allowing a large backlog of orders to be processed very quickly. To reduce production time so significantly, it was also necessary to streamline most of the support processes through planning, maintenance, logistics and HR. This took the manufacturing sector from a pure pressure system to a functional pull system.

### Where:

A manufacturing engineering company

## 88%

REDUCTION OF THE REMOVAL TIME OF 1 UNIT FROM THE WAREHOUSE TO PRODUCTION.

### Impacts:

21 minutes shorter picking time. At the same time, the error rate in the delivery of materials other than those needed in production was reduced and the percentage of defects caused by inadequate handling of products during loading, transport to production and subsequent removal from storage was significantly reduced.

### Where:

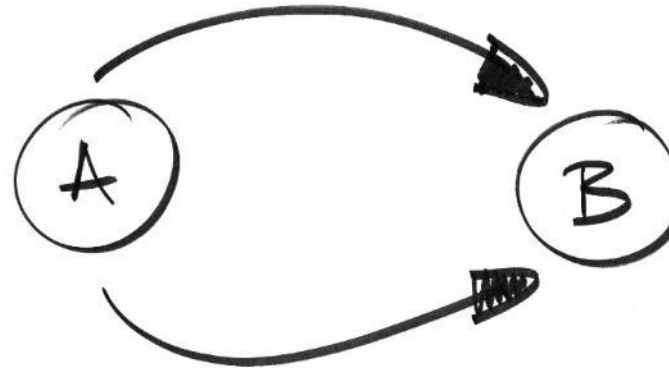
Production engineering company

# A HOLISTIC VIEW ON OUR LEAN APPROACH



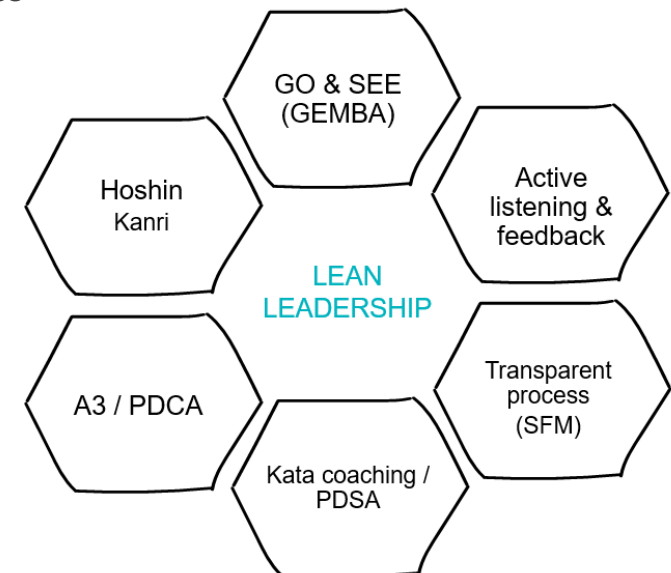
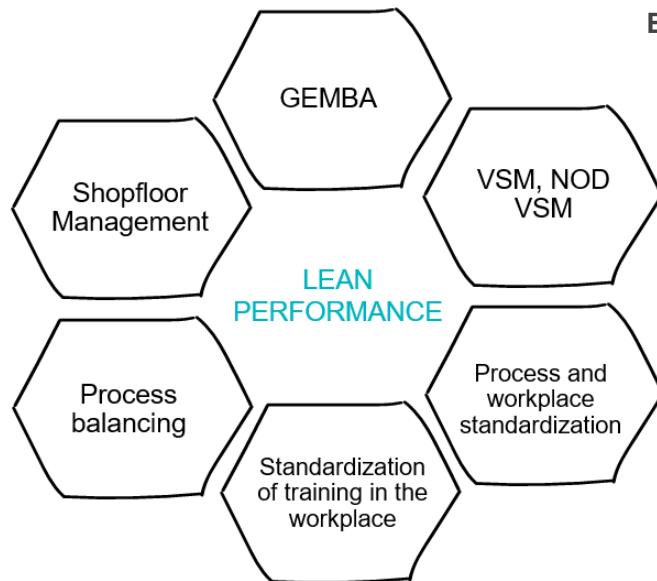
## LEAN PERFORMANCE

Lean tools - "hard techniques"

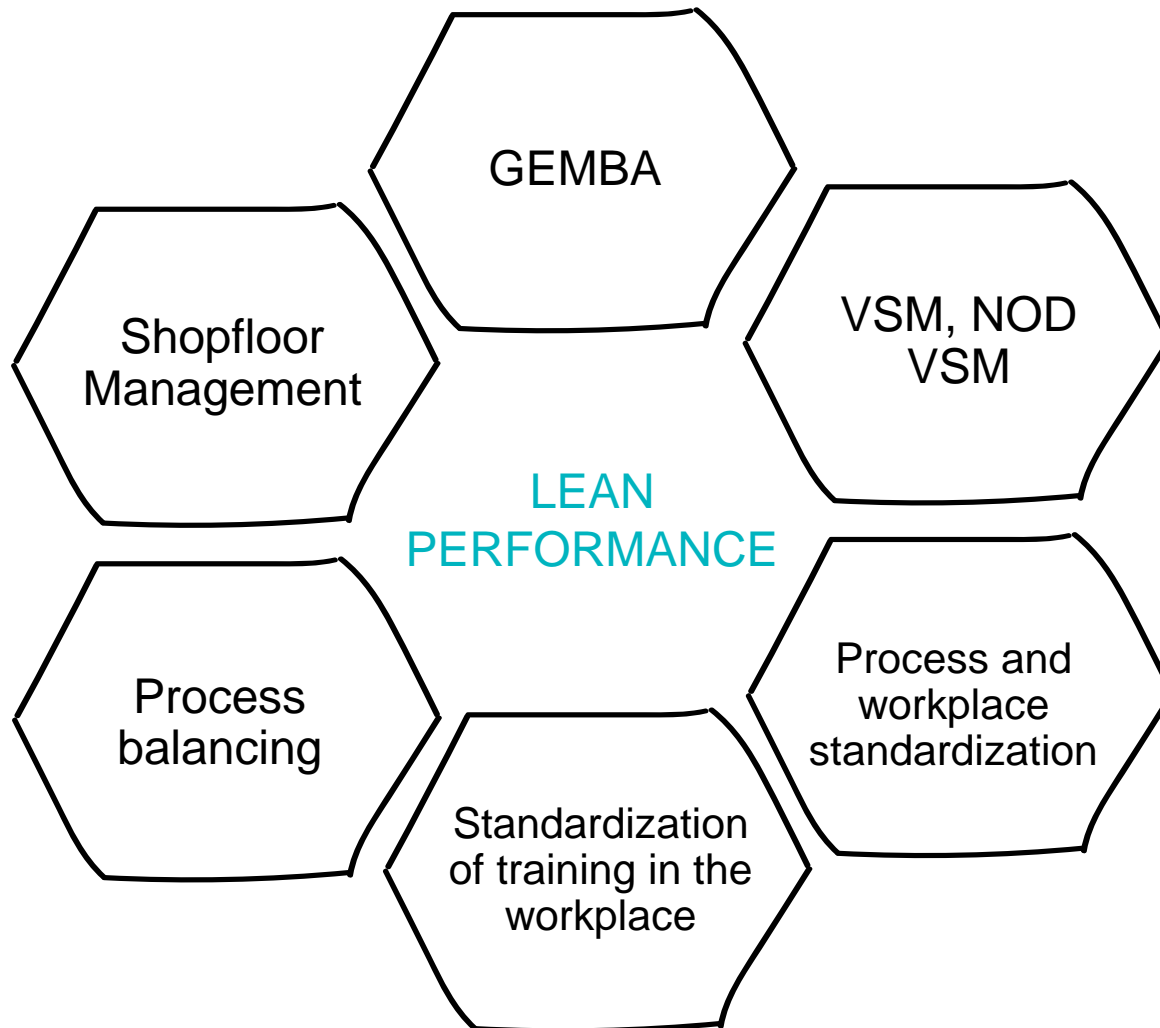


## LEAN LEADERSHIP

Behavior of leaders - "soft techniques"



# MODULES AND TOOLS WE USE IN THE LEAN PERFORMANCE PROJECT



## **GEMBA**

Understanding the process on the spot. Working with people directly in the process and forming hypotheses based on observations of what is actually happening in the workplace.

## **VSM, NOD VSM**

We map the entire process to uncover and quantify systemic opportunities. We strive to not just improve locally, but to see improvements in the broader scale of the entire process to ensure its long-term sustainability.

## **Process and workplace standardisation**

We are properly standardizing the new process and workstations to ensure the long-term sustainability of the improvements. This becomes the new status quo for the way of working.

## **Standardisation of training in the workplace**

To ensure that the staff of the improved workplaces get used to the new way of working as quickly as possible and can also train new employees, we will work with you to develop and standardize an effective training system.

## **Process balancing**

We balance and adjust the process so that it can respond to changing customer demand in a sufficiently short time.

## **Shopfloor Management**

In order to react quickly to process deviations, we implement a functional, transparent and efficient on-site management system.

# RECOMMENDED TIME APPROACH FOR THE CLIENT

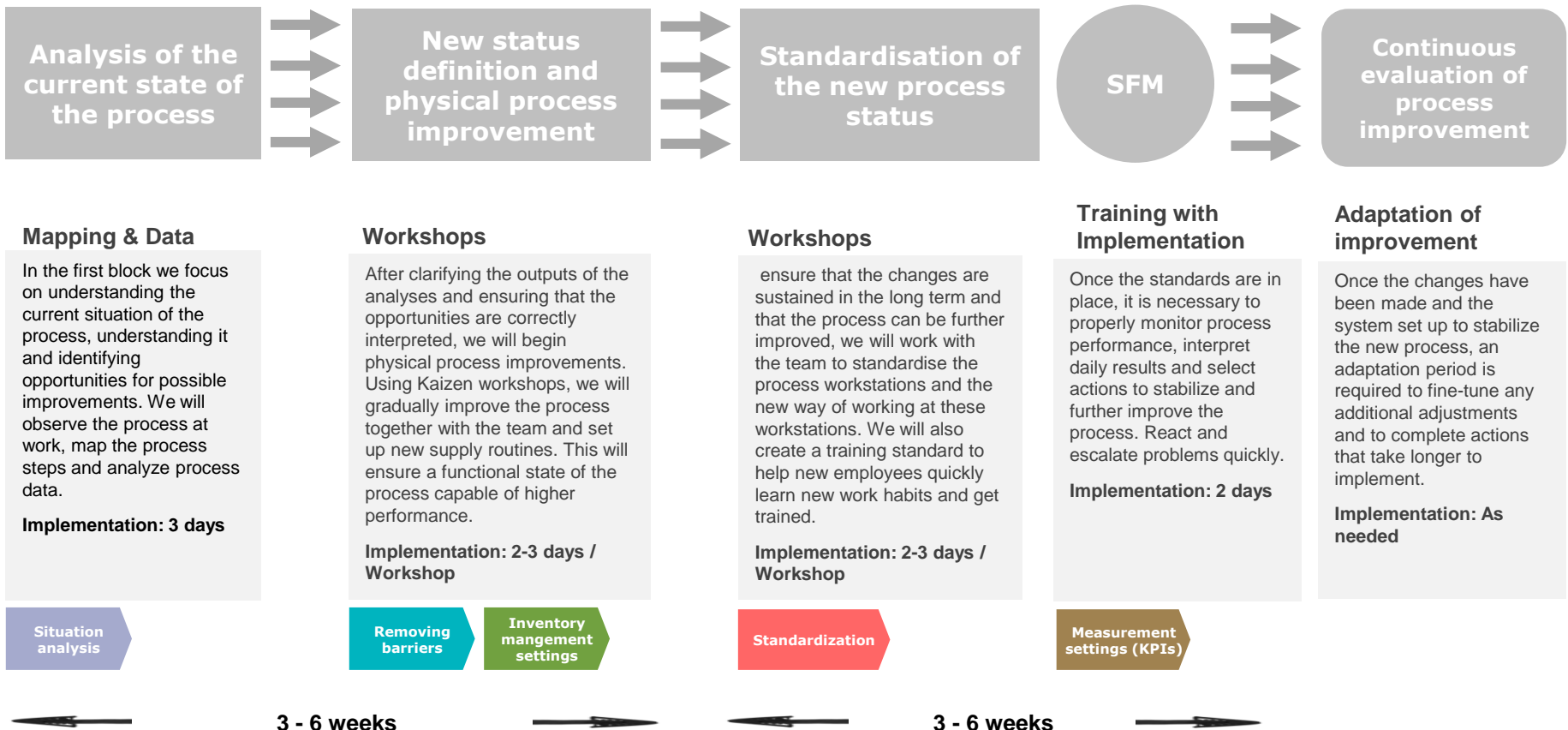


Here is a suggested approach, which we will modify together according to your specific requirements

## Phase 1: Analysis

## Phase 2: Improvement

## Phase 3: Standardisation



# DETAILED PROCESS - PROJECT ROADMAP



1.	2.	3.	4.	5.
<b>ANALYSIS OF THE SITUATION</b>	<b>REMOVING BARRIERS</b>	<b>INVENTORY MANAGEMENT SETTINGS</b>	<b>STANDARDIZATION</b>	<b>MEASUREMENT SETTINGS (KPI)</b>
Observing directly in the process	Kaizen approach	Identification of real production needs	Process and workplace standardisation	Identification of key metrics
Mapping activities and processes	Root cause analysis of problems	Ensuring a smooth flow of stock	Standardisation of training	Implementation of functional SFM
<p>Together with your team, we will walk through and map the entire process to fully understand how it works.</p> <p>We form hypotheses, find opportunities for improvement and identify quick wins.</p>	<p>We turn identified opportunities into concrete process improvements.</p> <p>Using a kaizen approach, we guide and motivate the team to create new ideas, thoughts and directions to innovate the current state of the process to obtain the needed benefits.</p>	<p>In order to ensure that the new process is sufficiently supported by the material flow and thus able to support its higher performance, we will need to set up its supply and logistics adequately.</p>	<p>For long-term sustainability and to enable further process development, we standardize functional improvements in the process and workplaces. Together with the team, we then create a standard for training employees to learn new habits faster.</p>	<p>We will find metrics and set standards that will enable leaders to not only manage the process effectively, but more importantly, respond quickly to emerging issues with effective actions to stabilize the situation.</p>
<b>Outputs</b> <ul style="list-style-type: none"> <li>Process map of the actual state of the process</li> <li>List of quick wins for immediate improvement</li> <li>List of hypotheses for analysis</li> <li>List of potential improvement opportunities and their potential benefits</li> </ul>	<b>Outputs</b> <ul style="list-style-type: none"> <li>Root cause analysis outputs</li> <li>Improvement action plan</li> <li>Improved process</li> <li>Action plan to stabilise the new process state</li> </ul>	<b>Outputs</b> <ul style="list-style-type: none"> <li>New limits on the amount of inventory required in the process</li> <li>Updated logistics inventory flows to support process continuity</li> <li>Updated roles and responsibilities for in-process inventory management</li> <li>Rapid Problem Solving</li> </ul>	<b>Outputs</b> <ul style="list-style-type: none"> <li>Standardized workplaces</li> <li>New process flow standard and its requirements</li> <li>Process standard for staff training</li> </ul>	<b>Outputs</b> <ul style="list-style-type: none"> <li>On-site monitoring of process performance metrics</li> <li>Set standards for rapid response to fluctuations in process performance</li> <li>Updating roles and key responsibilities of process improvement personnel</li> </ul>

# 1. ANALYSIS OF THE SITUATION

WE WILL ANALYSE YOUR SITUATION INCLUDING DATA ANALYSIS

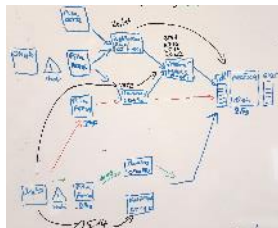
- In order to identify opportunities and define improvements that will lead to better process performance, we first need to know the situation in which the process is in detail.
- We will observe the process at work, map the process steps and analyze the process data.
- Interviewing process experts and clarifying specific process issues is also an important part of this, so that we can correctly interpret the process behavior and especially the analysis outputs. We will then communicate and validate these outputs with the stakeholders concerned.
- Together we then define the appearance, functions and expected outputs of the future state. We will choose a strategy and plan actions to achieve that.



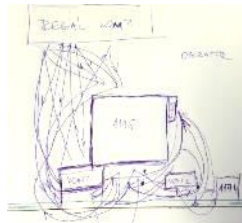
## OUTPUTS

- Process map of the actual status of the process
- Quick wins list for immediate improvement
- List of hypotheses for analysis
- List of potential improvement opportunities and their potential benefits

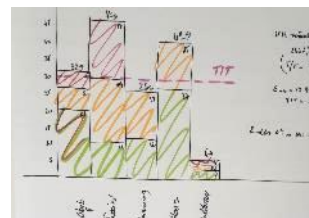
## Examples of outputs:



Process Map



Spaghetti diagram



Value analysis



Value Stream Map (VSM)

## 2. REMOVING BARRIERS

### REMOVE BARRIERS TO SMOOTH PRODUCTION FLOW

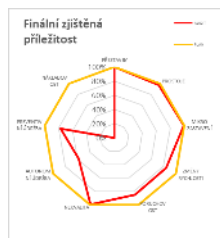
- Physical process improvements based on the outputs of previous analyses.
- While we and the team have identified opportunities for improvement, in order to actually eliminate the factors impeding the flow of production and sustain the improvement over time, we will analyze the root causes of these identified issues.
- We will design a new state that involves removing the barriers and creating the conditions for it to function smoothly.
- We will create a structured action plan and begin to physically change the process incrementally towards a defined better, future state.
- We document all processes properly, listen to the needs of the operators and ensure that the changes are accepted both within the team and overall within the company.



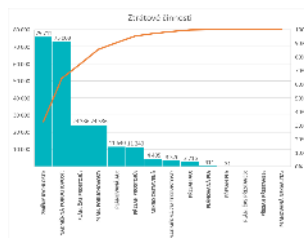
#### OUTPUTS

- Root cause analysis outputs
- Improvement action plan
- Improved process
- Action plan to stabilize the new process state

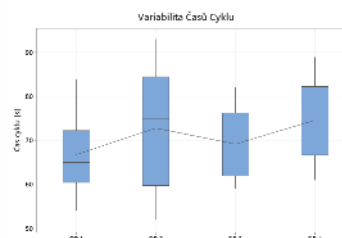
#### Examples of outputs:



Radar chart



Pareto of  
downtimes



Graphical  
analysis



Structured Action Plan

# 3. INVENTORY MANAGEMENT SETTINGS

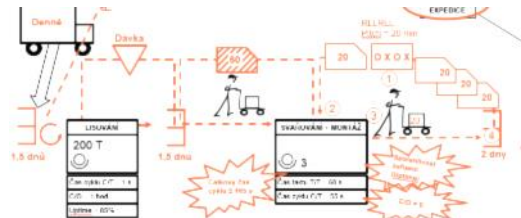
## WE SET UP INVENTORY CONTROL IN PRODUCTION

- In order for the new process to meet the higher performance requirements, the way it is supplied needs to be reconfigured.
- The number of input materials circulating in the logistics process will increase and must be properly organized so that exactly what is needed, in the prescribed quantities and at the right time, always reaches the production step.
- The production process and its requirements will be a stepping stone for us.
- Together with the production and logistics team, we will set up new ways of supplying the process so that they are not only able to operate a more efficient production process correctly, but also to be able to detect and resolve problems that could lead to production stoppages very quickly.

### Examples of outputs:



Design of a supermarket



Setting the pull system



### OUTPUTS

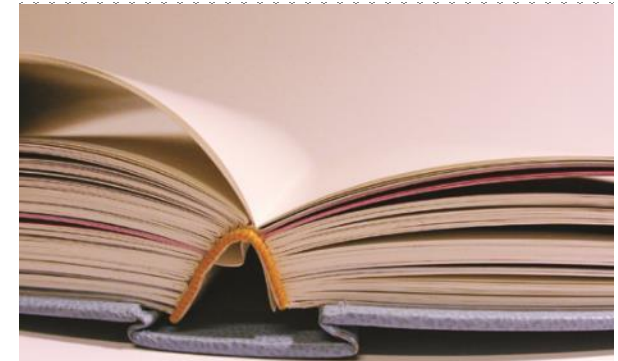
- New limits on the amount of inventory required in the process
- Updated logistics inventory flows to support process continuity
- Updated roles and responsibilities for in-process inventory management
- Rapid Problem Solving

# 4. STANDARDIZATION



## WE STANDARDISE THE NEW STATE OF PROCESSES IN PRODUCTION

- After implementing changes in the process, testing it in operation and confirming its functionality, we standardize the new system.
- First, we fully standardize the newly modified workstations so that everyone can perform the work in the new way efficiently and with quality.
- It is important to us that employees fully understand the new process flow, its performance requirements and can share suggestions for further fine-tuning.
- Once the process has been fine-tuned with the help of the team to meet the increase in performance while allowing workers to sustain that performance over the long term, we will jointly design a standard for training new workers. This will not only allow new people to learn the necessary skills more quickly, but also allow existing people to reflect further on the process.



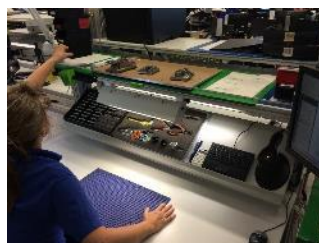
### OUTPUTS

- Standardized workplaces
- New process flow standard and its requirements
- Process standard for staff training

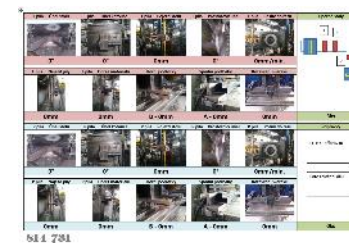
### Examples of outputs:



Standardized workplaces



Standardized procedures





- 

- On-site monitoring of process performance metrics
- Set standards for rapid response to fluctuations in process performance
- Updating roles and key responsibilities of process improvement personnel

**Technická využitelnost**



[www.integratedconsulting.cz](http://www.integratedconsulting.cz)



# About us: ICG Integrated Consulting Group



## ABOUT US

We are a consulting company operating in 12 European countries with more than 35 years of experience. We focus on process improvement using methodology of Lean Six Sigma, business innovations and change management. We deliver particular projects, trainings and combined programs to our clients in both service and manufacturing organizations.

# 140

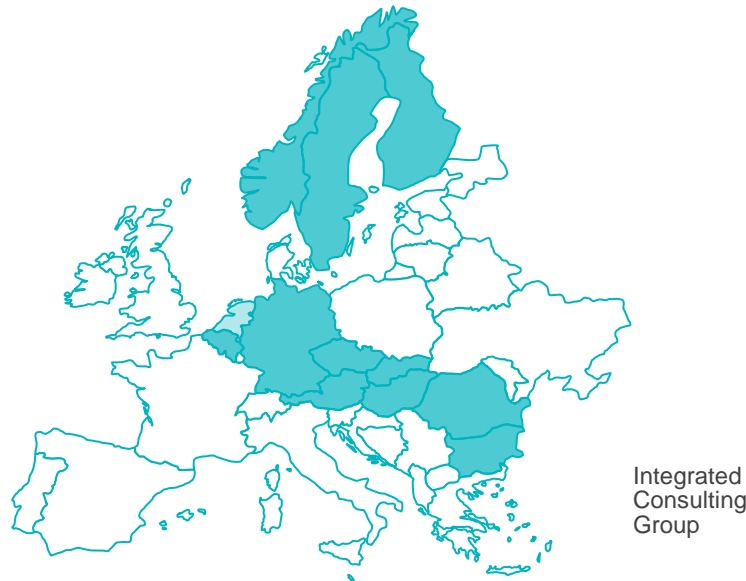
CONSULTANTS

# 12

COUNTRIES

# 35

YEARS



### 7 values of our company

1. The customer is always our top priority. We build long-term relationship based on trust.
2. We deliver more than the customer expects.
3. We are committed to results. We are rewarded for the supplied value.
4. We fully adapt to specific needs and requirements of the client.
5. Positive feedback from the customer is the main indicator of success for us.
6. Whatever we do, we want to do it as the best one in our field.
7. We do, what we enjoy, and we want you to enjoy it as well.

Global  
Partnerships

 **innova**  
management institute  
**CHINA**

 **SCHAFER**  
**CONSULTING**  
**USA**

**change** factory  
**EUROPE**

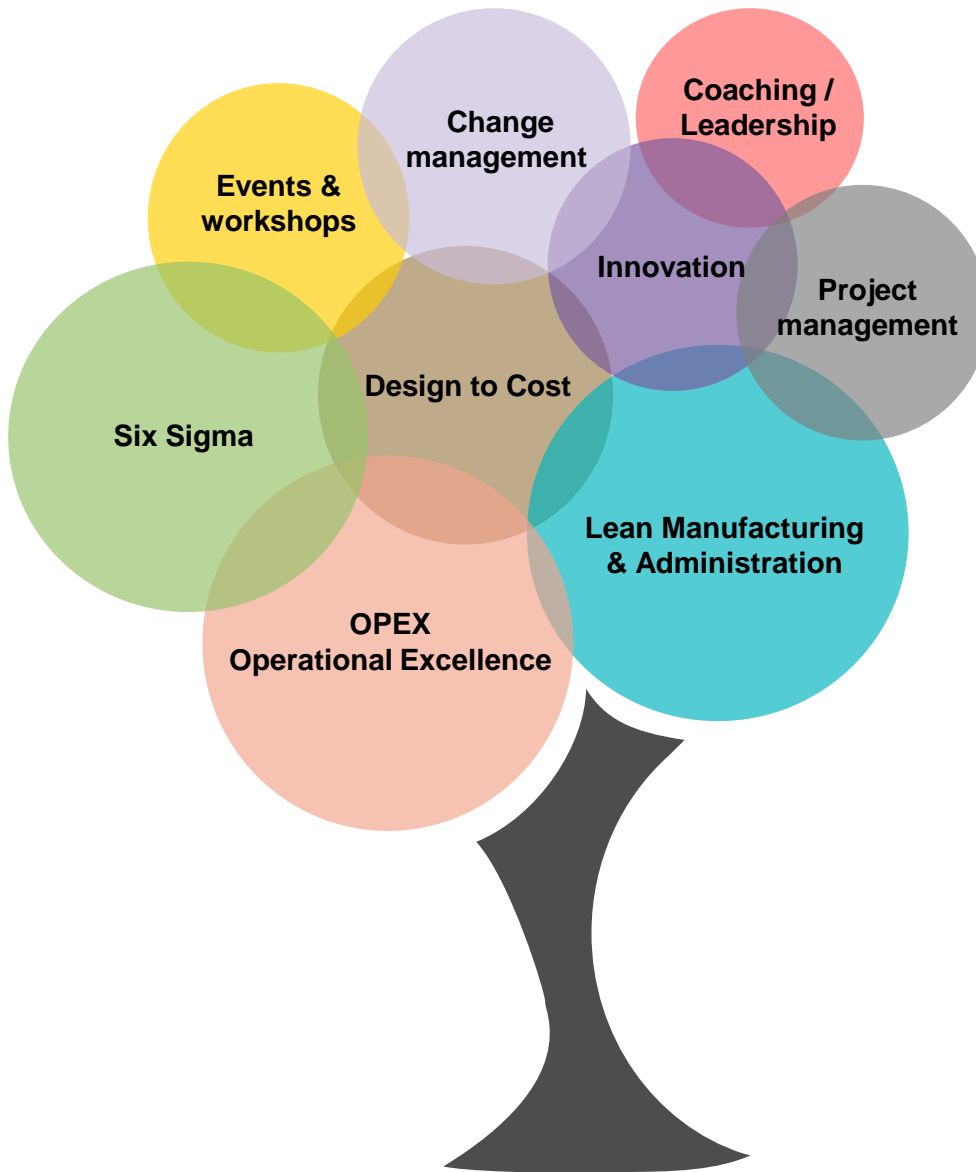
# WAY OF OUR WORK: CO-CREATION



- In our work, we effectively combine expert project knowledge with soft techniques to work with people and develop people. We offer and combine tutorials, training and coaching.
- Our work is based on engaging people and using innovative approaches. Consultations and analyzes are combined with group workshops to ensure the necessary commitment to change.
- We implement the projects together with the client. This will make it easier to accept the proposed changes and help transfer knowledge and methodology to the organization of the client.
- In case of interest from the client we provide detailed certified internal staff training for selected methods and procedures for process management, improvement or change management.

We transfer our know-how to your employees so that you stay in your company after the project is over

# OUR SERVICES



## Operational Excellence

Process optimization | Identify opportunities - Process Audits | Process mapping | Process design | Cost reduction | Business process management

## Six Sigma

Certified Lean and Six Sigma | Training | Six Sigma coaching | Implementing Lean Six Sigma into an organization | Interim Six Sigma Black Belt | Data analysis

## Lean

Training of Lean techniques and tools | Value Stream Mapping | SMED optimization | Lean Culture | Simulation for Lean Tools Exercise | KAIZEN workshops | Lean Administration

## Change Management

Change management | Changes with rapid results | Culture Diagnosis | Communication of changes | Change management training | Motivation and goal setting training

## Project Management

Project support | Project management | Strategy of PMO Project office | Project management training

## Innovation & Creativity

Innovation of products and services | Innovation workout | Strategic innovation | Innovation trainings | Creative problem solving | TRIZ | Design Thinking

## Workshops & Events

Increase the efficiency of internal workshops | Mobilizing Large Groups | Specific problems solving | Training of workshop facilitation | Outdoor Training Programs

## Design / Design to Cost

Design for X | Design to Cost Academy | Development of new products and services | Developing new „Business Model“ | Total Costs Management

## Leadership / Coaching

Coaching | Presentation skills | Right communication | Conflicts and how to deal | Sales skills | Mentoring | Trainings

# A TEAM OF PROFESSIONAL PERSONALITIES



- Our team consists mainly of experienced consultants and some high potential junior consultants
- Our ambition is to have a good mix of different personalities, women and men, old and young, with different nationalities and academic backgrounds
- Every consultant has strong process competences and appropriate social skills
- Every consultant has know-how in at least one of our key competences: strategy, innovation, organization, controlling or leadership
- We all enjoy our work and engage ourselves fully in our projects – there are no strict management functions, all consultants are key persons
- For each core competence we have at least 5 in-house top professionals with a strongly established market position
- It is important to maintain the variety of different personalities in preferably hierarchy-free environment – we are all vivid personalities of different age



# HUNDREDS OF CUSTOMERS



**Production Industry**



**Retail**



**Service Industry**



**State-Owned Company**



**Health Organization**



**Public Administration**



**University**



**Non-Profit-Organization**

**PRODUCTION INDUSTRY:** ABB | Ahlstrom | Alcatel Lucent | Andritz | AVG Technologies | AVL | Bayer Material Science | Bayer Schering | Berndorf | BMW | Boliden Kokkola | Bosch | Carlsberg | Carrier – United Technologies | Coca-Cola | Constantia | Dacia Renault | Daiichi-Sanko | Danisco | Dorma | Ericsson | Evonik | Fazer | Fortum | Fresenius | Geberit | Head | Heineken | Heraeus | Hoffmann La-Roche | Knorr-Bremse | Kone | Konecranes | KWB | Lenzing | LISEC | Magna Steyr | Mann+Hummel | Mayr Melnhof AG | Metso | Michelin Romania | Mitsubishi Heavy Industries/Roca | Momenite | Neste Oil | Nokia | Nokian Tyres | Norpe | Novartis | Orion | Outokumpu | Pepsi | Petrom OMV | Philips | RÜTGERS | Sandvik | Sanofi-Aventis | Sappi | Scandia | Schaeffler INA | Schenck Process | SMA Solar Technology | SMS Siemag | Speech Processing Solutions | Stora Enso | STRABAG | Teleste | Texas Instruments | Thyssen Krupp | Tieto | TMD Friction | Tondach | Tridonic | UPM | Vacon | Vaisala | Valio | Velux | Videoton | VTI | Wagner Biro | Wacker Neuson | Wärtsilä | Zwack

**RETAIL AND SERVICE INDUSTRY:** Airport Graz/Vienna | Accenture | Acredia Insurance | Allianz | ASA | Austrian Post | AVIS | BKS Bank | Budapest Bank/GE | Conwert | Coop eG | DB Regio | DB Schenker | E.ON | E-Plus | Erste Group Immorent | German Railway | Helsinki OP Bank | ISS | Kleine Zeitung | Klöckner | Metro Group | Neuroth | NORDEA | One / 3 | Praktiker | Prisma – Euler Hermes | Raiffeisen International | Saubermacher | Service Innovation Group | Styrian Saving Bank | Suntours | Telekom Austria | Verbund | Vodafone | Zurich Group

**STATE-OWNED COMPANY, HEALTH ORGANIZATION:** AKH Vienna General Hospital | Austrian National Bank | Austrian Patent Office | Austrian Railways | Cncaf Minvest | Energy Styria | Federal Computing Centre | Federal Forests of Austria | Federal Theater | Feibra | Finnair | Finnish Institute of Occupational Health | Finnish Railroads | Forest Ministry | German Society for International Cooperation (GIZ) | Holding Graz | Hospitals Köln | ITSV | Linz AG | Magyar Posta | Municipality Munich | ÖBB Austrian Public Bus Company | Romanian Post | Social Security Institution | Styrian Medicine Institutions | SUVA Swiss Insurance Company | Tarom | Theater of Graz | Veikkaus

**PUBLIC ADMINISTRATION, UNIVERSITY AND NON PROFIT ORGANIZATION:** Aalto University | Austrian Federal Ministry of Agriculture, Education, Environment, Finances, Health, Internal Affairs, Science and Culture, Social Security | Business University Vienna | City of Graz, Helsinki, Linz | Euma | European Commission | European Forum Alpbach | European Institutions | EUSA | Federal Chancellor Department | Fraunhofer | German Academy of Technical Sciences | Graz University of Technology | Highschool in Gävle | Kemi-Tornio University of Applied Sciences | Labor Union of Private Employees | Provincial-Government of Berlin, Hamburg, Lower Austria, Salzburg, Styria, Upper Austria, Vorarlberg | Romanian Federal Ministry of Finance | Senior Expert Service | Tekes | University Klagenfurt | WKO



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Group

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# Make an impact.

Your Partner in Change.

