IMPLEMENT
CONSULTING GROUP_

OPERATING SYSTEM FOR MANUFACTURING

A systematic approach to reaping the full potential of manufacturing

August 2018

“We have already tried that, it doesn’t work …”

PAIN

“Lean programmes or improvement initiatives that are not sustained.”

“They are rolled out like projects, rather than ingrained into operations …”

“They aren’t engaging people due to a tool focus rather than principles and leadership systems.”

“Failing to break down the business strategy into actionable content that can be implemented.”

DREAM

Ability to quickly make sustainable improvements – *again and again and again.*

Empowering people and teams to excel in their daily work, with a surplus of time to invest in incremental improvement.

Ability to quickly mitigate deviation from the plan and learn from performance above or below target.

Effectively break down strategic goals into operational tasks to be executed.

The operating system is applicable to all manufacturing

WHY

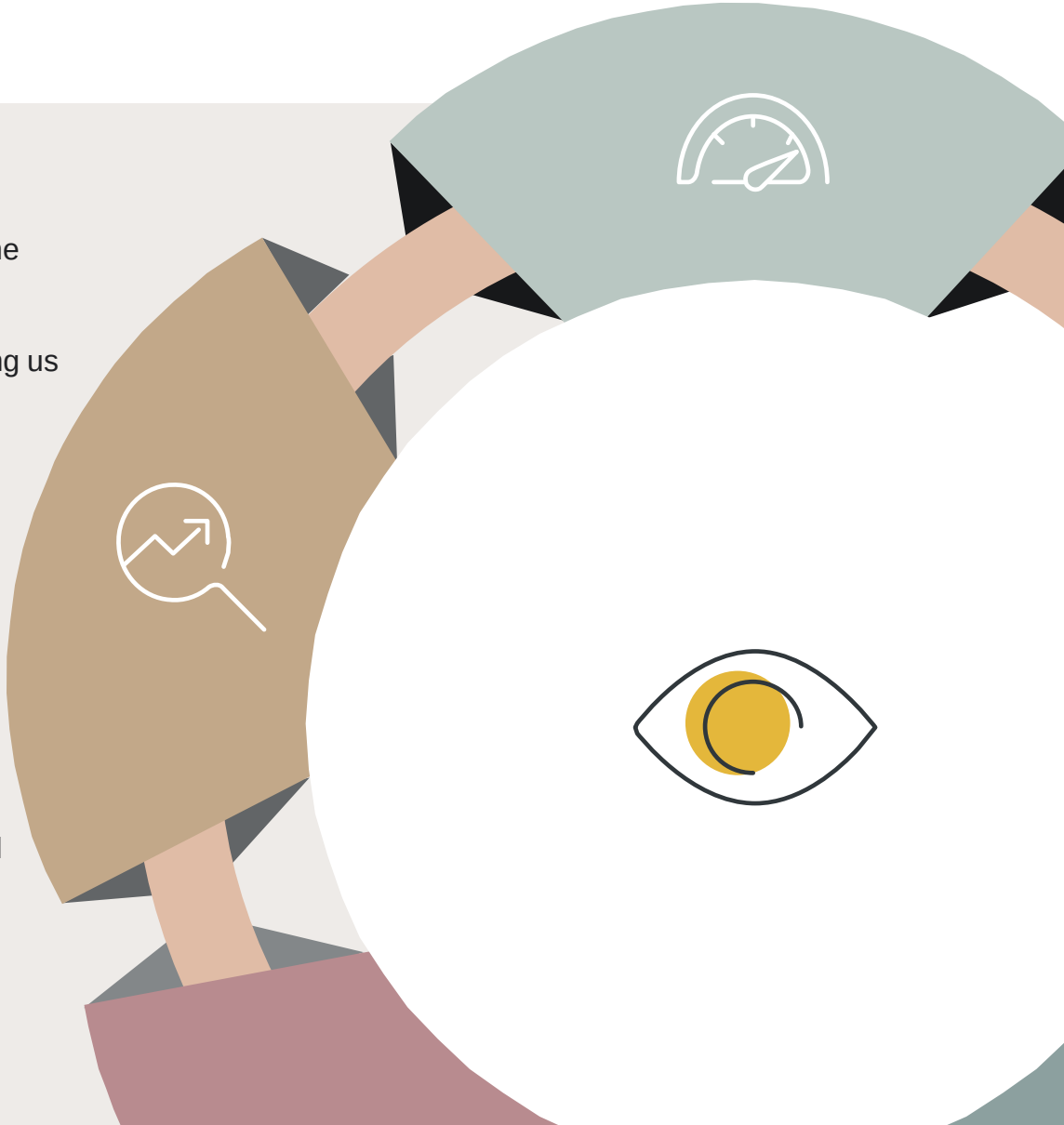
- Formal or informal, an operating system dictates the running and improving of operations – it is the **foundation** for operational excellence.
- It works as a **link** between people and tools, helping us reap the full potential of manufacturing.

WHAT

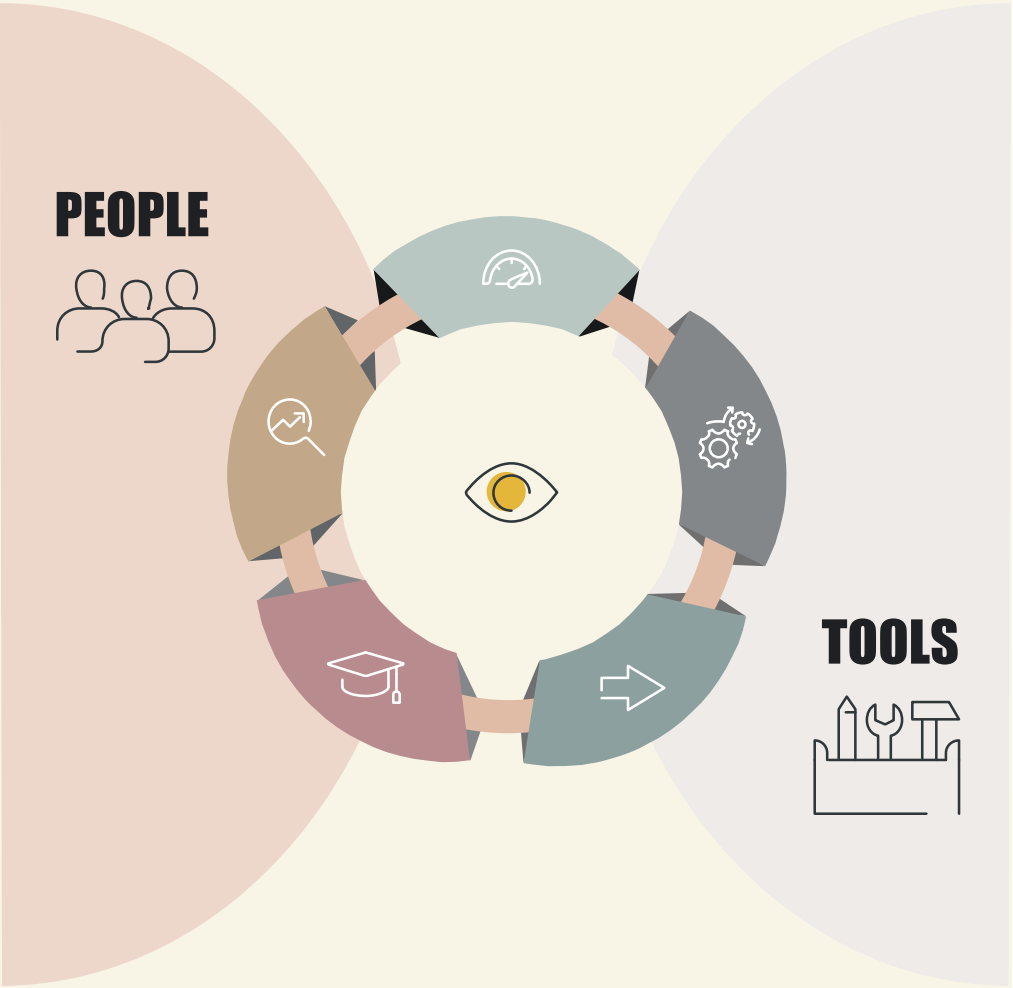
- The operating system for manufacturing consists of **five core elements** supported by **visual** management and it is the platform where we execute the operations strategy.

HOW

- The approach is **leadership-driven**, anchored by internal community owners, securing sustainable implementation
- The core approach is to dream **big**, but start **small** and scale **fast**, to ensure quick learnings across all areas.



The link between people, tools and strategic goals



Formal or informal, an operating system helps deliver on strategic goals by breaking them down and making them operational.

By formulating the running and improving of operations, an operating system is the foundation for operational excellence and if done well, it can be a competitive advantage.

Without people, tools are nothing – the manufacturing operating system links people to tools and provides the infrastructure to engage operations in delivering on strategic goals, today and tomorrow.

Three cases that display realised impact across industries

$133m

SAVINGS

The global logistics company struggled with high costs, amplified by complexity and diversity in the way operations were executed across the globe.

The programme realised total savings of USD 133m, improved the work environment and in one year, **boosted idea generation per month** from 200 to 900.

25%

NWC REDUCTION

Due to poor processes and flow, a global construction machinery manufacturer was struggling with long lead times and rapid increases in tied-up capital.

Over the course of two years, the company managed to improve manufacturing flow, increasing **productivity by 12.5%** and freeing up more than 25% of tied-up-capital.

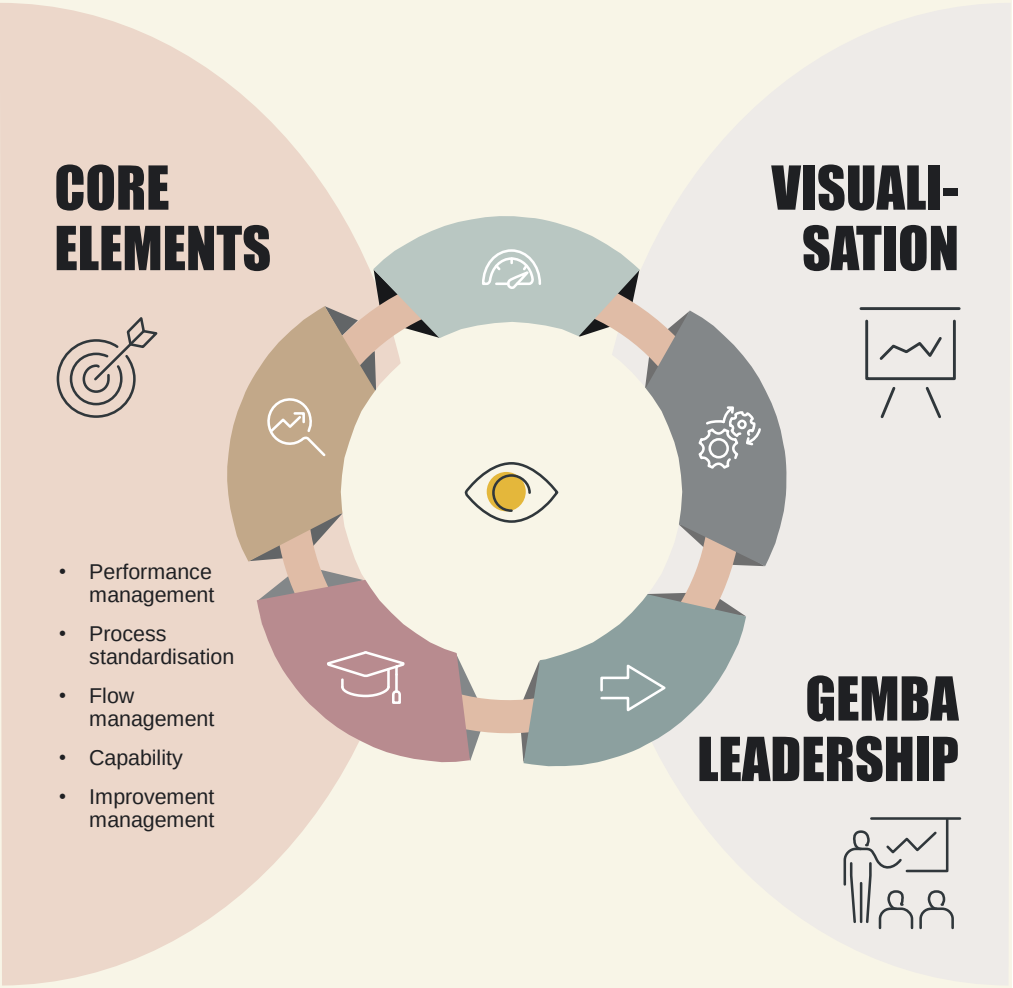
66%

LEAD TIME REDUCTION

A global jewellery producer experienced rapid growth in the volume and number of employees. With a functional layout in the factory, lead times were drastically prolonged with increased volume.

Implementing a new way of working meant that the company was able to reduce lead time from six to two weeks, while **productivity increased by 20%.**

Five core elements to master, tied together by Gemba leadership and visualisation



WHAT

The manufacturing operating system consists of five core elements, which together form the essentials for any manufacturer to master.

Visualisation plays an important part in the manufacturing industry, as it enables organisations to see performance As-Is and what needs improving, thereby visualising our problems …

… SUCCESS

depends on solving our problems through leadership commitment (Gemba leadership), exercising good shop floor management and growing our people – developing a learning organisation.

OPERATING SYSTEM

Improvement management

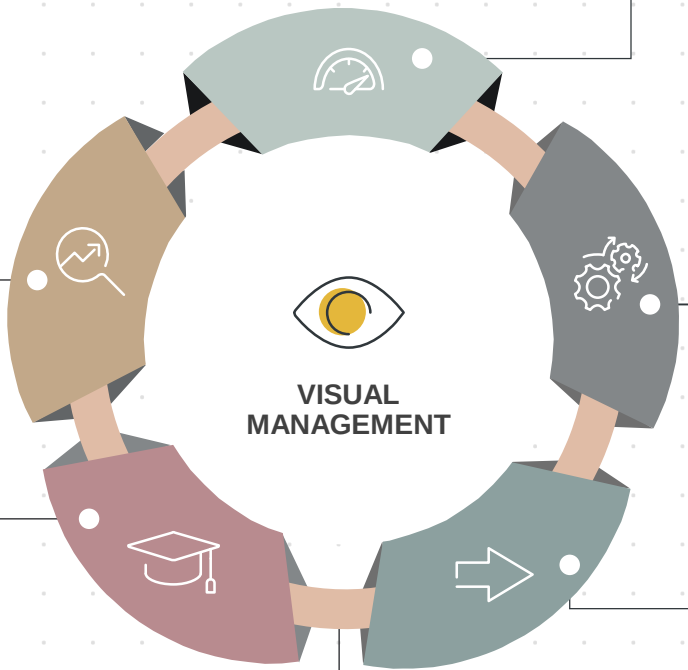
- Developing a continuous improvement culture
- Focussing on the root cause and structured problem solving

Capability

- Developing people and capabilities
- Motivating employees through recognition and constructive feedback
- Empowering flexibility with resource management

Gemba leadership – what ties it all together

- Redefining leadership roles to support operations



Performance management

- Focussing on the right level of performance
- Target-setting and learning from over/underperformance
- Driving a performance culture from structured meeting design

Process standardisation

- Creating the foundation for managing and rapidly improving processes
- Developing one way of working

Flow management

- Balancing resource and flow efficiency
- Creating a pull system supported by assets, maintenance and capacity management

Practices to change behaviour
– the operating system is wired to support …

WHAT IM_

Takt in touchpoints

Recurrent team meetings to plan, adjust and mitigate issues proactively.

Performance

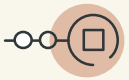
Evaluate the impact of leading measures on result indicators – take action!

Team commitment

Active ownership of performance, both good and bad – supportive team and leader.

80/20 rule

Seek to standardise what is core, eliminate bottlenecks – save the rest for later.



Process mindset

Dare to live by standards – if results do not materialise, challenge the process or standard.

Visualise bottlenecks

An awareness of current bottlenecks enables quick mitigation, balancing and deployment of resources.

Grow people

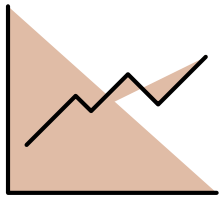
Go to Gemba to develop and motivate people and give constructive feedback.

Talk impact

Transparency of results – if we do this, what is the financial impact?

Takt in learnings

Recurrent team meetings to generate, prioritise and implement improvements.



… BEHAVIOUR IS ESSENTIAL

AN OPERATING SYSTEM GOING FROM... TO...

WHAT IM_

		FROM	TO
LEVEL 1 STRATEGIC **> 12 months**	• Setting the strategic direction for the company, establishing prioritisation of growth, cost, profitability etc. • Evaluating vertical and horizontal decisions such as the manufacturing footprint, mergers and acquisitions and customer and supplier collaboration relations.	Strategic direction not linked to operational development. A project and tools focus that leaves people disengaged.	A platform for executing broken down strategic elements. Sustained efforts through focus on behaviour and leadership.
LEVEL 2 TACTICAL **< 12 months**	• Deciding on the weekly and monthly production set-up to accompany customer requirements. • Evaluating workforce needs and competence levels, ensuring that no complications will occur during manufacturing. • Planning maintenance activities to assist the best possible production flow without interruptions.	Ineffective problem-solving due to a lack of visual flow, process and skills. Unplanned events dictate information flow.	The right skillset is present, executing core processes through one way of working. Information flow and decisions are orchestrated through sequenced meetings.
LEVEL 3 OPERATIONAL **< 7 days**	• Closely co-ordinating between departments on how to execute the production plan, in regards to different daily and weekly activities as well as availability of the workforce. • Managing day-to-day challenges and executing corrective actions to accomplish operational goals.	Sub-optimisation is likely as departments work and execute tasks in silos. Problem-solving heroes are the dominant power in operations, curing symptoms.	Day-to-day, cross-departmental co-ordination and a focus on the greater good. Problem-solving performed as a team effort, reducing fire fighting.

Combining Gemba leadership and rapid testing is key to successful implementation

As the operating system is largely a culture transformation, the approach needs to have strong **leadership involvement** for it to become a success.

Anchoring a new way of working requires commitment at all levels, which is facilitated through communities of subject matter experts, element owners and key stakeholders.

Combining a pragmatic and speedy approach is essential. Test, learn and reshape to make sure that impact materialises to enable sustainable implementation.

A programme driven by leadership requires full involvement of the senior management team

LEVEL 1 STRATEGIC

- At an early stage, establish a clear link between the top priority and how each level in the organisation is connected to it.
- Select a few must-win battles and cascade them downwards to create lagging/leading measures.
- Communicate the “why” story – listen to your team.

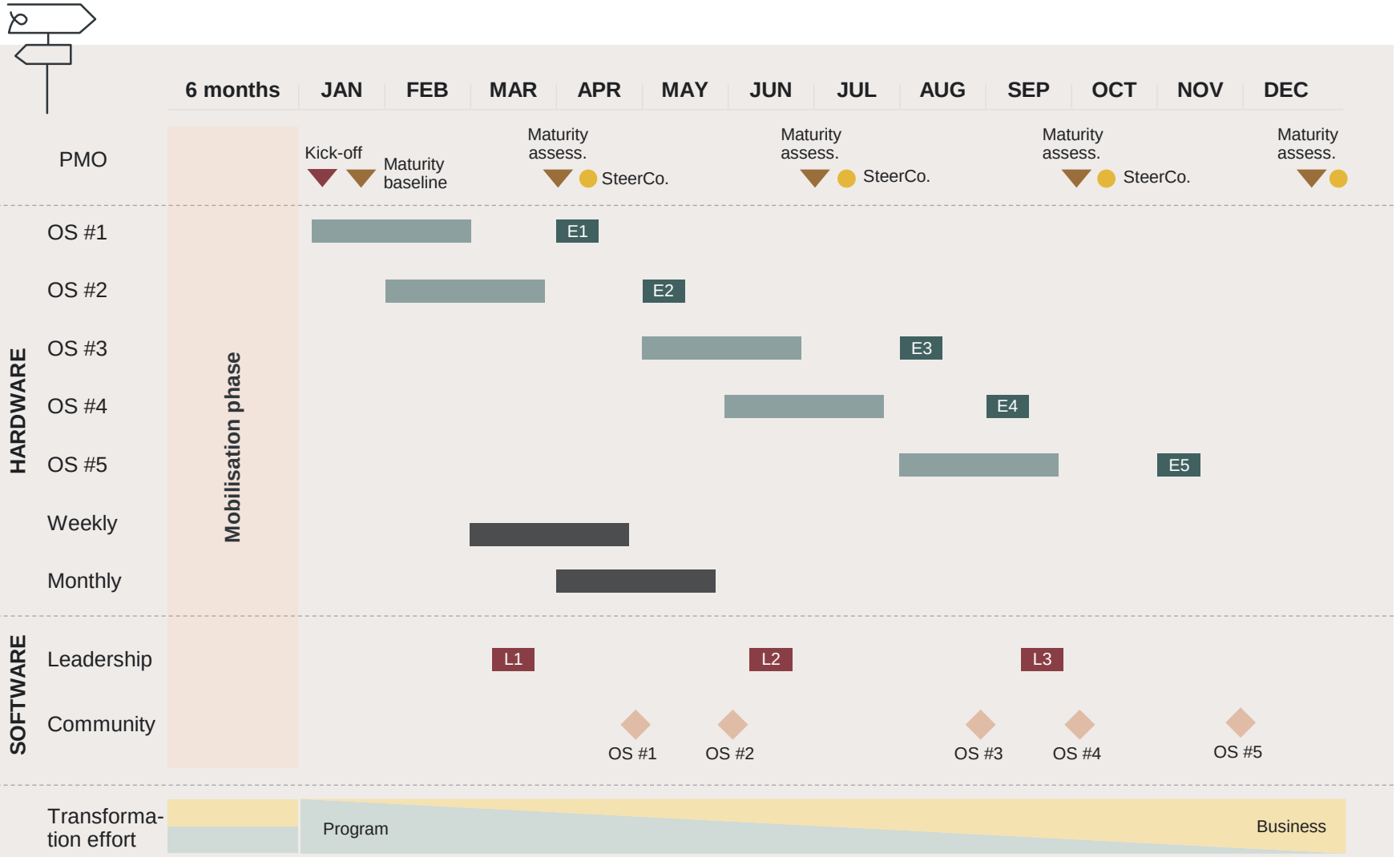
LEVEL 2 TACTICAL

- Who can champion the project, put the required work in to inspire others and do hands-on work?
- Which area(s) are suitable to start testing in? What is the scope of implementation as the top priority?
- What element would be the most beneficial to start with? A staged roll-out can be applied in order to not dilute the effort.

LEVEL 3 OPERATIONAL

- Be prepared to just start, rather than be perfect to begin with. The operating system will never be fully finished.
- What is key to daily operations? Are these people meeting on a daily basis? If not, this is where to start.
- Make sure relevant teams are included, expand as progress is made.

HIGH LEVEL PROGRAM PLAN



Mobilisation phase, prepare organisation for the program, identify and free-up resources, create and involve stakeholders in roll-out plan

Legend

- Project Kick-off
- Maturity assessment
- SteerCo.
- Element implementation
- E1-5 Element training
- Weekly/monthly meeting set-up
- L1-3 Leadership training
- Community establishment
- 50/50 resource involvement

IM_

LETS MAKE A CHANGE

The world is begging for change. Let's go make it. We are ready to work alongside the world's most ambitious clients, taking on their toughest challenges.

Contact

Michael Madsen
T: +45 5221 6042
E: mima@implement.dk

Jesper Kuch Pedersen
T: +45 2338 0065
E: jkp@implement.dk

Mathias Larsen
T: +45 2757 0307
E: mlar@implement.dk

Sofie Skotting
T: +45 6124 4839
E: sosk@implement.dk