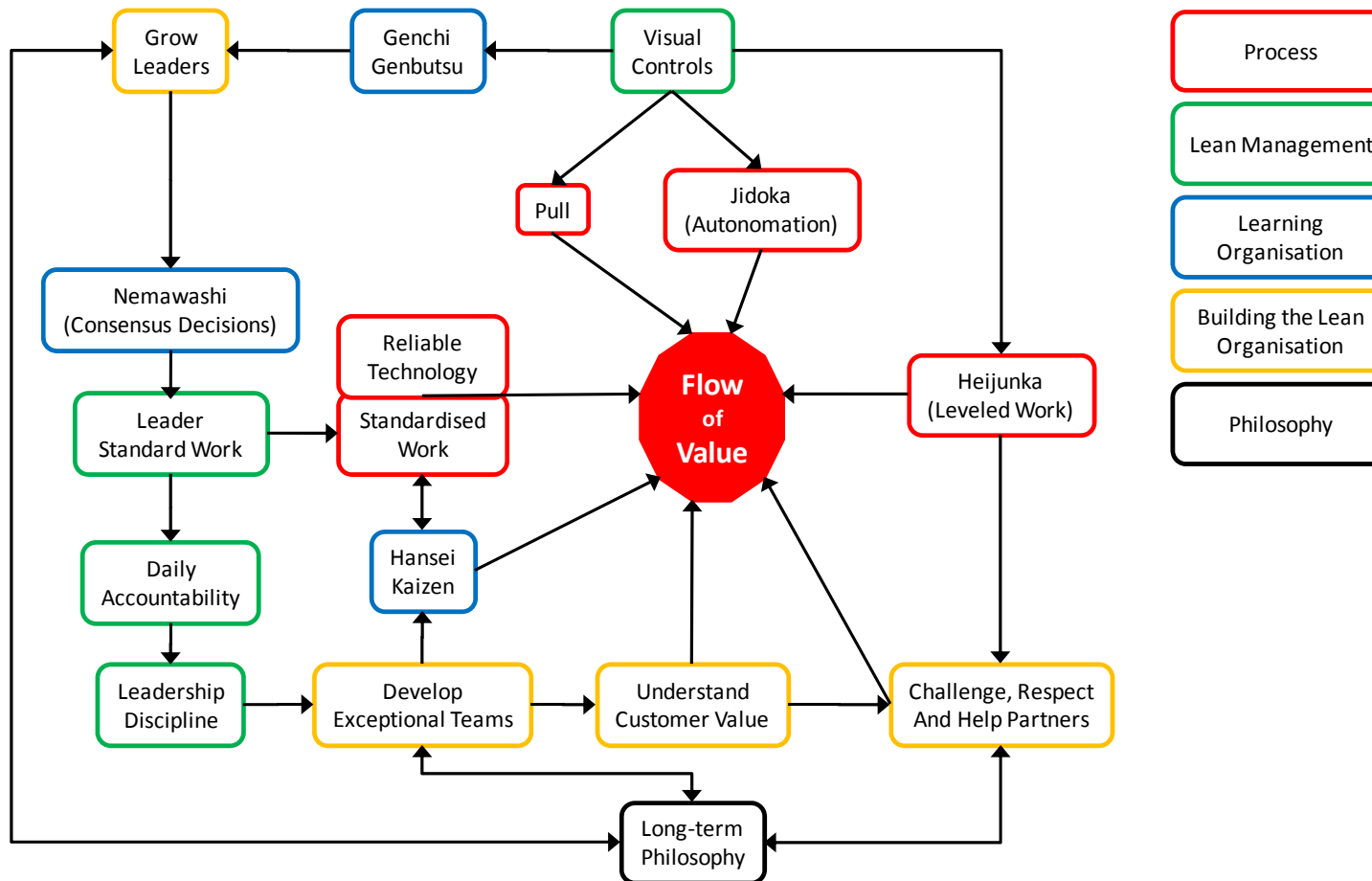


The Toyota Way Principles of Lean Management



Create a Flow of Value, from order to cash

Our goal is to create a smooth flow of value so that we can quickly and reliably deliver the value to meet customer needs. As Taichi Ohno says: *“All we are doing is looking at the timeline from the moment the customer gives us an order to the point when we collect the cash. And we are reducing that timeline by removing the non-value-added wastes”*.

Create flow to link processes and people together so that problems surface right away.

Heijunka: smooth the workload

Create an even workload, work rhythm and work content. Avoid mistakes by not overloading people and machines. Work at a sustained and sustainable pace. Avoid interruptions, task switching and starting/stopping a lot. Break down the work in small even-sized chunks to smooth the flow. Spread projects over time to create an even load for those who work on the projects.

Standardise the work and use reliable, known technology

Use stable, repeatable methods everywhere to maintain predictability, regular timing and regular output of your processes. Capture accumulated learning about a process. Allow creative and individual expression to improve upon the standard. Then incorporate it into the new standard so that when a person moves on you can hand off the learning to a new person.

A proven process that works takes precedence over new technology. Conduct thorough tests before adopting new technology. Reject or modify technology that conflicts with your culture or that might disrupt stability, reliability and predictability. Encourage your people to consider new technologies. Quickly implement a technology if it has been proven that it will increase flow in your process.

Use Visual Control so no problems are hidden

Use simple visual indicators (Andon) to help people determine if they are within a standard condition. Design simple visual systems at the place of work to support Flow and Pull. Reduce your reports to one piece of paper, whenever possible. Be ready to take action based on the visual controls.

Flow where you can, Pull if you must

Material replenishment initiated by consumption is the basic principle of just-in-time. Minimize "work in process" and inventory by stocking small amounts and frequently restocking. Link teams, departments and companies with simple Pull systems. Be responsive to shifts in customer demand, rather than relying on long-term schedules and complex systems to manage inventory and work in progress.

Jidoka: build a culture of stopping to fix problems, to get quality right the first time

Quality for the customer drives your value proposition. Build into your equipment the capability of detecting problems and stopping itself. Develop a system to alert leaders that a team, machine or process needs assistance. Build into your culture the philosophy of stopping or slowing down to get quality right, to enhance productivity in the long run.

Genchi Genbutsu: go and see for yourself to thoroughly understand the situation

Solve problems by going to the source and personally observing and verifying data. Don't theorise on the basis of what other people and computers tell you. High-level managers and executives especially should go see for themselves, so they will have more than a superficial understanding of the situation.

Grow leaders who thoroughly understand the work, live the philosophy and teach it to others

Grow leaders from within, rather than getting them in from the outside. Leaders must be role models of the company's philosophy and way of doing business. A good leader is a teacher and understands the daily work in great detail.

Nemawashi: make decisions slowly by consensus, thoroughly considering all options. Implement decisions rapidly.

Do not pick a single direction until you have thoroughly considered all alternatives. Keep your options open. When you have picked, move quickly but cautiously. Discuss problems and potential solutions with all of those affected, to collect their ideas and get agreement on the path forward. The consensus process is time-consuming but helps broaden the search for solutions and sets the stage for rapid implementation.

Leader Standard Work

Standard work specifies what the leader should be doing and not doing. Focus on your work and call on others to focus on theirs. Adhere to the work with discipline, implement Genchi Genbutsu, review the visual controls and address the gaps between expected and actual. This will leave you free to focus on making changes and improvements.

Daily accountability improves processes

Use regular and brief meetings to review what happened yesterday and assign actions for improvement. The daily accountability process interprets the visual controls, converts them into assignments for action and follows up to ensure assignments are completed. Reinforce process focus and resolve issues quickly to drive improvement.

Leadership discipline

Setting clear expectations and using a regular process to track completion is crucial. Process focus is a daily vigilance: regularly track whether standards are being met and if not, find the root causes of misses. It is the leader's role to establish and model the climate of discipline.

Develop exceptional teams who follow your company's philosophy

Use cross-functional teams to improve quality and productivity. Empowerment occurs when people use the company's tools to improve the company. Make an ongoing effort to teach individuals to work together towards a common goal. Teamwork is something that has to be learned. Work very hard to reinforce the company's philosophy continually.

Understand customer value and let it drive all your actions

The customer is always the starting point in a Lean system. Go and see for yourself to experience the customer's situation. Communicate customer-defined value throughout the organisation to align all objectives, focus energy on the customer and focus on value-adding work. Make value measurable and set value targets to verify team's commitments. The Chief Engineer is the voice of the customer and has the leadership skills to keep the customer value vision alive.

Become a learning organization through relentless reflection ("Hansei") and continuous improvement ("Kaizen")

Design processes that require almost no inventory. This will make issues visible for all to see. Once an issue is exposed, have employees reflect on its causes ("The 5 Whys") and use a continuous improvement process to eliminate it. Once you have established a stable process, determine the root causes of inefficiencies and apply effective countermeasures. Protect the organisational knowledge base by developing stable personnel, slow promotion and very careful succession systems.

Respect your extended network of partners and suppliers by challenging them and helping them improve

Respect partners and suppliers; treat them as an extension of your business. Challenge your partners to grow and develop. It shows that you value them. Set challenging targets and assists in achieving them. Extend the levelled, flowing value stream to include all partners and suppliers.

Base your management decisions on a long-term philosophy

Grow and align the whole organisation toward a common purpose that is bigger than making money. Generate value for the customer, society and the economy - it is your starting point. Evaluate every function in the company in terms of its ability to achieve this. Strive to decide your own fate. Act with self-reliance and trust in your own abilities. Accept responsibility for your conduct. Maintain and improve the skills that enable you to add value.

If you want to know more

- Implementing Lean Software Development - Mary & Tom Poppendieck
- Toyota Production System - Taiichi Ohno
- Thinking beyond Lean - Michael Cusumano & Kentaro Nobeoka
- Product Development for the Lean Enterprise - Michael Kennedy
- Managing the Design Factory – Donald G. Reinertsen
- The Toyota Way – Jeffrey Liker
- Toyota Culture - Jeffrey Liker & Michael Hoseus
- The Toyota Product Development System - James Morgan & Jeffrey Liker
- Extreme Toyota – Emi Osono, Norihiko Shimizu, Hirotaka Takeuchi
- Creating a Lean Culture - David Mann

See <http://www.agilecoach.net> for more resources about the Toyota Way.

Pascal Van Cauwenberghe
pascal@agilecoach.net
Nayima
<http://blog.nayima.be>

Portia Tung
portia@agilecoach.net
emergn
<http://www.emergn.com>

