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Creating a Lean and Green Business System

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June 4th, 2021

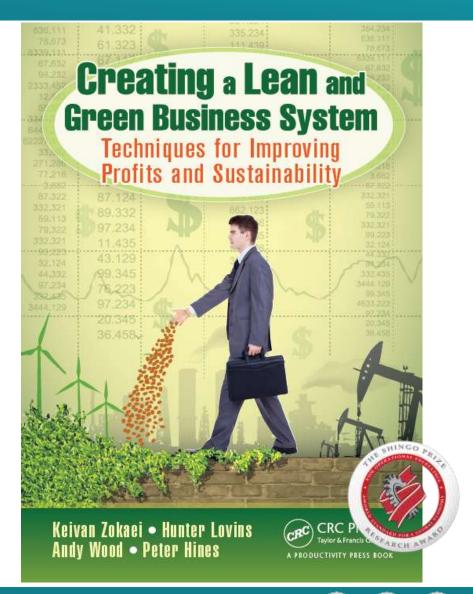








My Lean & Green Journey





The beginning

Lean





Green





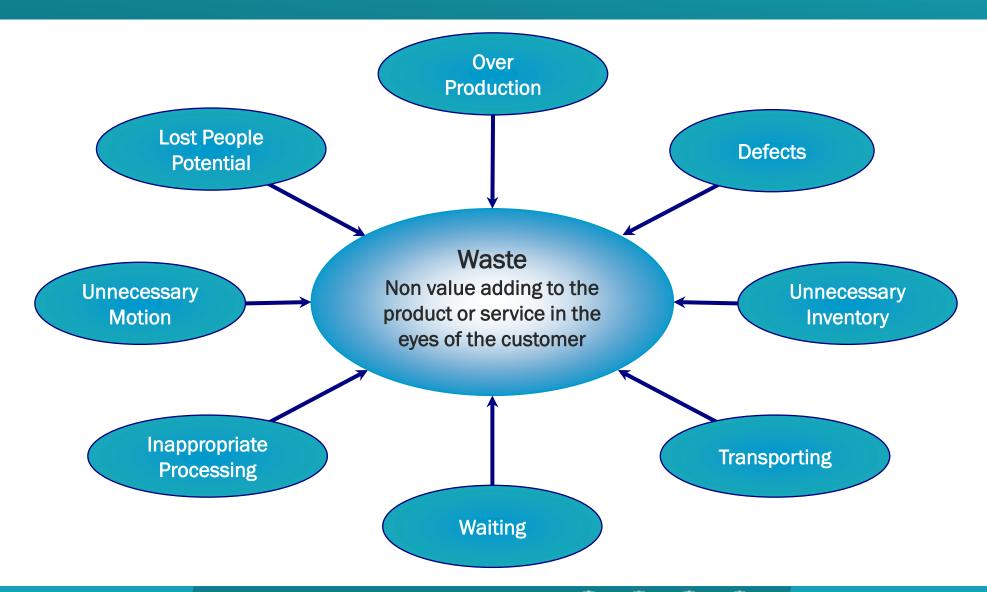




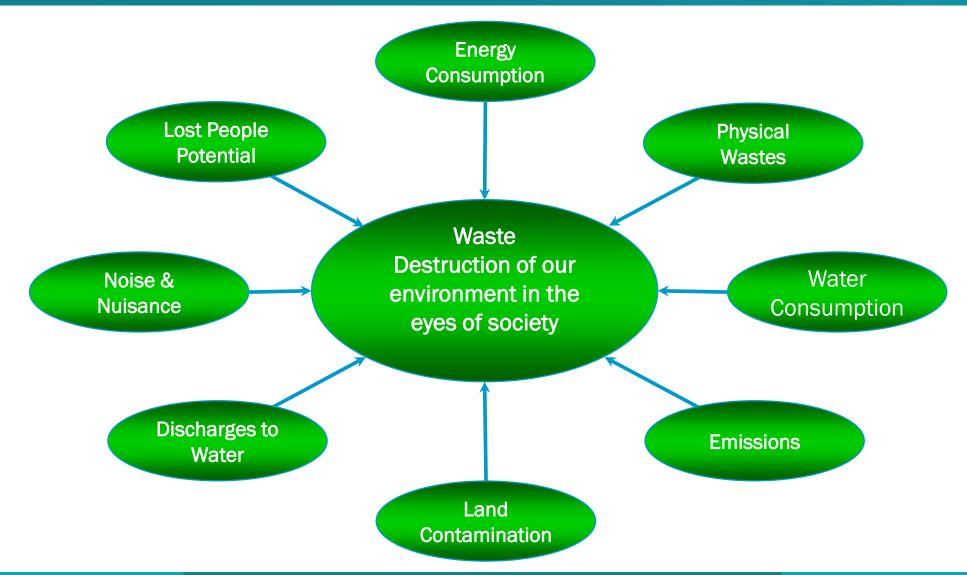




The Eight Lean Wastes



The Eight Green Wastes









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Did this basic concept work?



- ► YES!
- ► A toolkit was created that, in numerous large and medium size companies, 10% to 30% of their environmental footprint could be eliminated in a single week
- A very large FMCG company made this a compulsory, annually recurring, ritual



Benefit	%	Improve
Food waste	50%	1,000 T
CO ₂		15,000 T
Water		20 osp
Lower costs	8%	£Millions
Sales uplift	4%	£Millions
Productivity increase	7%	
Inventory reduction	25%	













- ► Intervention was so successful that M&S began its 11 years journey
- ► Involved thousands of suppliers as well as M&S themselves
- ► Created a Lean & Green toolkit for M&S supply chain which they have made public very recently: here.
- ► Created a scorecard for assessing Lean and Green maturity and to enable the entire supply base to create roadmap and go on L&G journey
- ▶ They called it "System of Success" which combined three pillars: Lean, Environment and Ethical

FOOD WASTE	Donations of surplus in meals equivalent Read more	11.8m meals	+126% on 2019/20
PACKAGING	Percentage of packaging classified as being easily recyclable Read more	87%	+10% on 2019/20
WASTE TO LANDFILL	Percentage sent to landfill Read more	Zero	Zero in 2019/20
M&S GREENHOUSE GAS EMISSIONS (CO ₂ e)	The gross carbon dioxide emissions from M&S operated stores, offices, warehouses and delivery fleets worldwide Read more	$298,000$ tonnes CO_2	-13% on 2019/20

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Can L&G become a genuine movement?

Needs Universal Principles











Universal Principle that Lean Offered?

	GM Framingham, USA	NUMMI (Joint Venture between Toyota and GM in Fremont, USA)	Toyota Takaoka, Japan
Productivity Hours/car	31	19	16
Assembly Quality Defects/car	135	45	45
Average Inventory of Parts	2 weeks	2 days	2 hours

The best quality is also cheapest in manufacturing

The Machine that Changed the World (1989)

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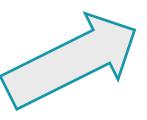






The Machine that Changed the World Again?

The greenest is also the most efficient and the best quality car maker



Ranking	T CO2 / vehicle mnfg	
Toyota	0.86	
GM	0.93	
Fiat S.P.A.	0.98	
Volkswagen	1.05	
Ford	1.06	
Honda	1.10	
Daimler (Mercedes)	1.53	



Very Successful L&G Companies Know their WHY

Monozukuri

Hitozukuri

► Manufacturing in harmony

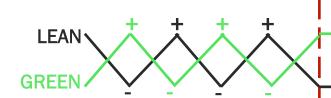
► Lean is about creating better people







Lean & Green Maturity



Trade-off

Lean contradicts organisation's green ambitions and vice versa.

E.g. more frequent deliveries increases CO₂ emissions. Lower CO₂ emissions reducing productivity.

Parallel

Lean and green can co-exist and even be complementary.

E.g. efficient technical solutions for both lean and green outcomes.

Synergetic

Catalytic relationship between lean and green.

E.g. clean tech.
allowing tax
concession.
Simultaneous
elimination of
economic and
green wastes.



Symbiotic

Lean and green are pursued as part of the same strategy.

E.g. L&G strategy for reducing 'loss' imparted to society during entire product life cycle.

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