

History of Improvement

From Cottage to Kaizen

Early industry

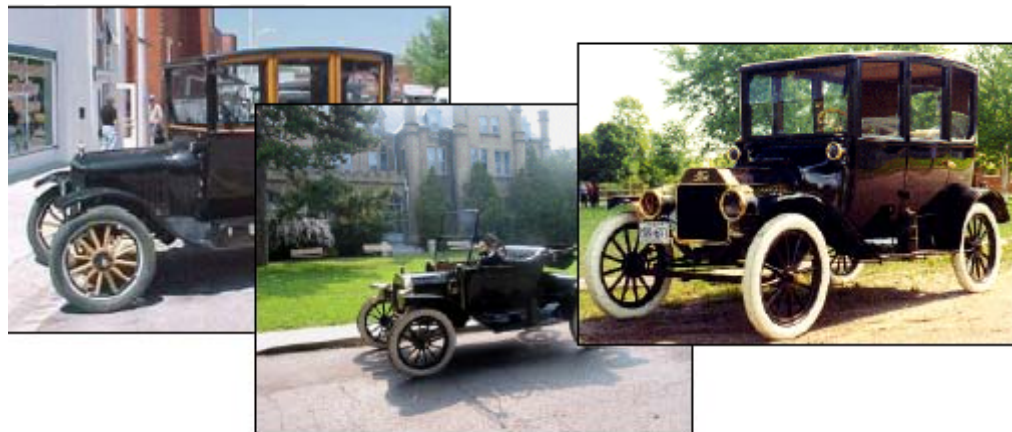
Date	Event	Comment
1700	Cottage industry	Skilled workers, flexible systems, low productivity. Workers improve work.
1700s	Mass production inventions	Spinning Jenny, Cotton Gin, Interchangeable musket parts
1800's	Industrial revolution	Unskilled workers, inflexible systems, manufacturing output doubles every 20 years – UK manufacturing leads the World
1911	Fredrick Taylor scientific work study	Management study work to improve it



Evolving improvement methods



Date	Event	Comment
1914	Model T Ford introduced	15m cars produced “Any colour you like so long as it is black”
1931	Shewhart introduces statistical control charts	Allows study of variability in processes
1947	Taiichi Ohno moves to Toyota	Start of Toyota Production System TPS
1952	Deming introduces Plan, Do, Check, Act	Structured approach to management, underpins Total Quality Management



Refined improvement methods



Date	Event	Comment
1978	Kaizen was born	Taiichi Ohno publishes TPS
1987	Motorola develop Six Sigma methodology	Structured approach to problem solving using DMAIC method
1998	World class manufacturing terminology used	GE saves \$10bn using six-sigma, TPS is established as a set of tools
2008	Toyota takes over from GM as largest car manufacturer in the world	The most consistent car manufacturer in profit and growth over last 30 years

