

GETTING LEAN : THE BASICS

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The watchword for the '90s is Lean. Getting there is half the fun and all the work! Here, in summary, are the basics - the tried and true fundamentals!

Motivation: While the primary reason for getting lean has to do with long-term survival, there is no question that some shorter-term objectives will make a significant positive impact on motivation.

Involvement: The more people involved, the higher the probability of success. Involved people help by hoping and working for the best outcome, while also planning for the worst to ensure that the inevitable back-sliding does not stop the entire programme.

Clear targets: Turning ambitious long-term goals into achievable short-term objectives improves the likelihood of a successful outcome. Attention paid to the development of realistic yet challenging targets is worth the effort since it can feed back and enhance motivation.

Simple steps: Getting lean is best achieved through systematic application of easy-to-understand steps which can be readily implemented. These small steps should encourage the development of new habits.

Measurement against targets: Regular feedback through formal measurement shows progress which adds up to success. Where there is no progress, the measurement process can be used to help ensure future success.

Early success: Seeing positive results, however small, improves motivation and helps establish new habits. Recognition of these successes strengthens involvement and motivation. Records of small successes can stand as bulwarks against slow periods and missed targets.

Sustaining programme: While 'getting lean' is the first objective, the true goal is staying lean. New habits must be nurtured until they become second nature to sustain the success.

Now: Exactly what do you suppose the above is all about? programme for lean production? A new scheme for manufacturing improvement? A top-management initiative for increased productivity?

No: The 'basics' above are taken from the *Weight Watchers* programme. It's all about shedding weight and keeping it off by changing one's eating habits permanently.

On the other hand, this is not a bad plan for getting to 'Lean Production'. Indeed, it may be better: the final step - a programme for sustaining success - is missing from most manufacturing improvement programmes, whether focused on lean production, total quality or even process re-engineering.

Here follows a brief translation of the above programme into a plan for manufacturing improvement:

Motivation: For the individual, avoiding the health risks of overweight is often the fundamental objective. However, having a suit in a smaller size ("I want to fit into this for my daughter's wedding", for example) is definitely a help.

For the manufacturing enterprise, survival in an increasingly competitive environment is the underlying goal - and it may not be particularly long-term! But this overall objective may not be the best motivator in the short run. More personalised targets for smaller groups and individuals bring the goals into clearer perspective.

Involvement: The days are long since over (if they ever did exist) when a manager could radically reform manufacturing single-handed. There is no such thing as an unimportant job in the organisation; there never has been a trivial job in a well managed manufacturing enterprise. This means that everyone counts, and unless everyone's habits are changed to a more productive approach, any gains will be short-lived.

Honest involvement and participation of everyone will prove its value when setbacks, and apparently intractable problems arise - as they inevitably will. The *Weight Watcher* knows this, and prepares for it by enlisting support up front. A single pound gained is not the signal to stop short: this is when encouragement is most needed, when other ideas can help.

Clear targets: After a medical check-up, *Weight Watchers* establishes short-term weight loss targets which are realistically achievable. While losing 4 stone may seem daunting (even impossible), losing 10 pounds in 4 weeks sounds possible. Human nature being what it is, who wants to embark on an impossible mission?

How many misplaced manufacturing enthusiasms does it take to wear everyone out? Having not accomplished the last several 'top management supported', 'worker empowered', 'continuous improvement' challenges has likely left most of the organisation weary, discouraged and perhaps even cynical. If the objective is 'improved competitiveness', how does the materials planner, the foreman, the machine operator, even the maintenance manager, know what to do? Management has its work cut out for it if the objective is really to bring about 'lean' production. Development of realistic, clearly stated achievable targets throughout the organisation is critical. And, even more important, these targets must add up to overall improvement. Here there is no substitute for an intelligent and informed management team working hard to get the overall programme right the first time.

Simple steps: Shirt-pocket-sized cards with basic calorie/fat information and simple guidelines for a day's meals have analogies for manufacturing. Toyota's famed 'Stamp Out the Three Evils,' slogan can be written on a piece of paper the size of a credit card; the more complete detail which includes such admonitions as 'reduce large lot sizes' and 'reduce variability' fit handily on a 3x5 card.

If habits must change permanently, there is no substitute for focus on the simple steps required. Complexity has always been manufacturing's nemesis, as the decades-old cry 'Keep It Simple, Stupid!' suggests.

Measurement against targets: With clearly defined small targets and simple steps, regular measurement is straightforward - and itself part of the motivation. The loss of ten pounds is a cause of enthusiastic celebration at a *Weight Watchers* meeting: a ribbon is awarded and others who know what effort is required to achieve that success offer sincere appreciation.

On the other hand, regular measurement also provides early warning that help may be needed. Instead of letting the situation become a serious problem, measurement against the targets offers the opportunity to move in quickly and begin the solution early.

Early success: In theory one can wait patiently for the long-term ultimate outcome.

Realistically, however, identifiable success (however small) breeds more small successes, which in turn enhances the probability of sustained long-term success. What is more discouraging than interminable waiting for something good to happen?

A succession of successes, moreover, helps encourage the development of the new habits which are the *sine qua non* of improved manufacturing performance.

Sustaining programme: The plethora of manufacturing improvement programmes - from Business Process Re-engineering through TQM, JIT, MRPII, World Class Manufacturing, Time-Based Competition and SPC, not to mention Lean Production - suggests a fundamental problem with the programmes as well as with manufacturing itself. Few of these much-vaunted programmes are sustained: each is more likely to be succeeded by the next enthusiasm.

Part of the explanation for this dismal record is that these programmes do not build in from day one the assumption that improvement is a process not an event. This may well mean accepting trading off early big successes in return for systematic development of new habits which will hold for the long term. It also means learning how to cope with new and different future challenges, most of which cannot be known, in detail, in advance. Motivation, involvement, setting of targets and measurement against them, are always needed.

These are not short-term projects which can be discarded, but modes of behaviour for the long run.

Weight Watchers claim greater success than their competitors at staying 'lean'. An important reason is their emphasis on changing behaviour - establishing new habits which make it possible to stay lean. An equally important aspect of their programme is proper preparation for the long hard work required, including planning ahead for back-sliding and mistakes.

There are lessons here for manufacturers. For decades now, manufacturing organisations have been on improvement binges, with predictably discouraging results. Perhaps it is time to recognise the basics: lean manufacture, sustained

over time, requires steady hard work which will never go away.

Does manufacturing management have the attention span required to ensure long-term success?

REFERENCE

The basic reference for 'Lean production' is:

[1] J P Womack, D Roos and D S Carpenter, "The Machine that Changed the World", MacMillan 1990.

About the Author

Linda G Sprague, FDSI, is Professor at the Manufacturing Management Centre, Cranfield University and Professor of Operations Management at the Whittemore School of Business & Economics, University of New Hampshire in the USA.

She received her doctorate in production/operations management from Harvard Business School and holds many member and fellow positions in many Institutes including a Fellow of BPICS.

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Please note: As a result of errors in the printing of this article in the August/September issue, it has been reprinted in full in this issue.

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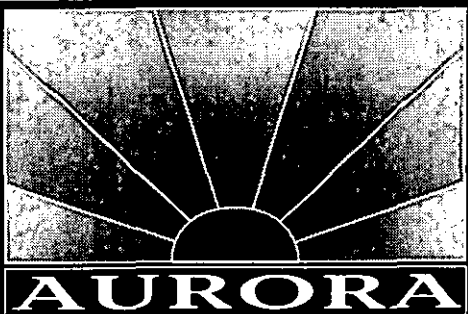
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