

Book Review: Fishbone Flow

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Fishbone Flow: Integrating Lean, Six Sigma, TPM and TRIZ

By John Bicheno

A PICSIE Book, 2006

Fishbone Flow is a 120-page quick reference guide to the Lean philosophy, methodology and toolkit. The book is an update of previous editions and is notable for its inclusion of TRIZ.

The introduction to the book, in fact, describes Lean, TRIZ, Six Sigma and TPM (Total Productive Maintenance) as the 'big four' of organisational improvement. In describing how the four integrate the book states:

"Today, most organisations realise that Lean by itself is insufficient. Lean is needed for flow and waste reduction. Six Sigma is required to reduce variation and defects. TPM is needed to make best use of equipment. And creative thinking is needed for innovation, to enhance value, and to assist with continuous improvement. Although there are many concepts for innovation and breakthrough thinking, TRIZ is almost certainly the most comprehensive."

The book is thereafter structured as a series of inter-connected fishbone diagrams. The Flow Framework developed by Kate Mackle of Thinkflow is used as the basis. At the highest level, 'Lean' is divided into ten functionally-defined elements. Thus there are sections (and fishbone diagrams) for:

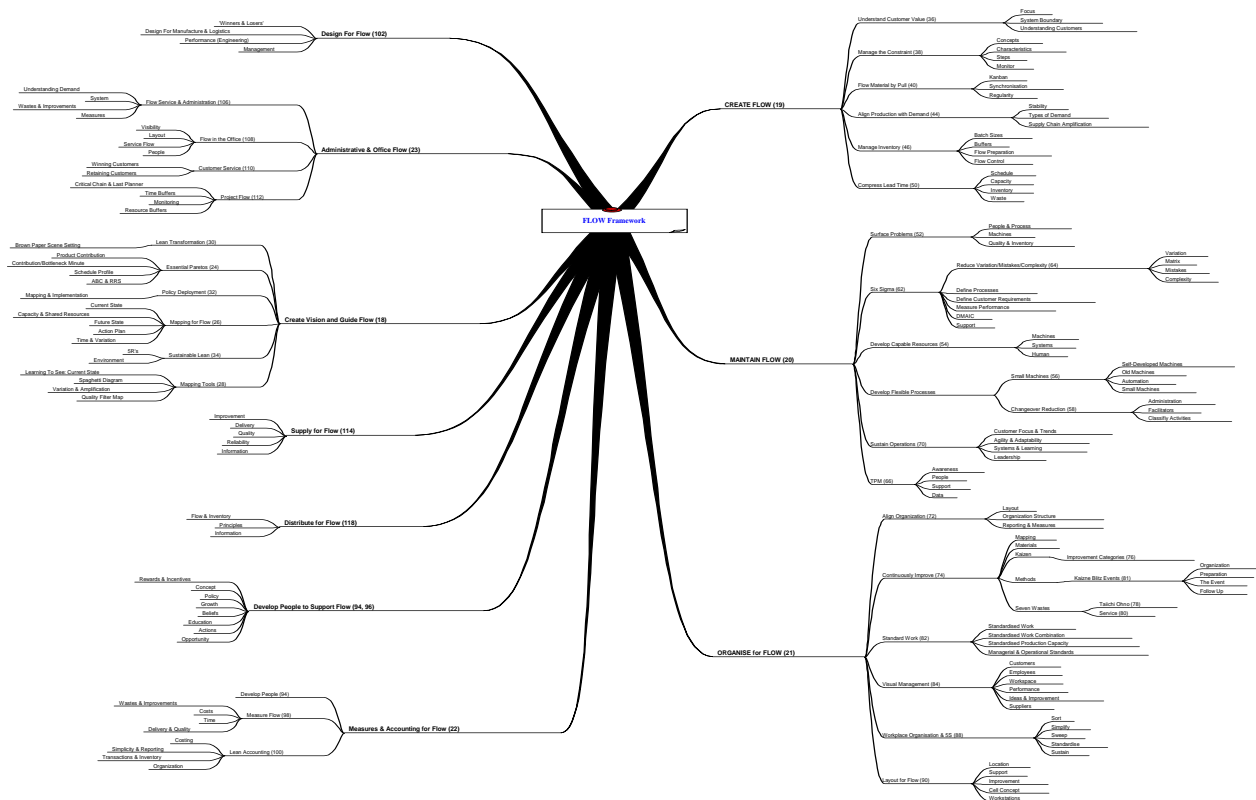
- creating flow
- maintaining flow
- organising flow
- creating vision
- measures and accounting for flow
- developing people to support flow
- administrative and office flow
- supply for flow
- distribute

The latter two focus, respectively, on the upstream and downstream flow links that exist between an organisation and its outside interfaces.

Each of the ten sections cascades into one or more additional fishbone diagrams. Each fishbone on each diagram then outlines what needs to be considered. With this in mind, the book is designed as an elegant 'remember to...' (as opposed to 'how to') book.

Having begun with the ten element high level picture, the sequential form of the book makes it a little difficult for the reader (actually 'user' might be a better word) to maintain sight of the big picture. The one-level hierarchy limitations of the fishbone diagrams don't

help either. Neither does the lack of cross-referencing between different levels of the structure. In order to help this user to keep an eye on the bigger picture, I constructed this mind-map:



[\(click here for larger version\)](#)

(Numbers in parentheses indicate page number on which a given fishbone diagram is shown. The smallest branches on the mind-map represent the fish-bones at the finest level detail fishbone diagram in the book.)

Once the user has decided which of the ten elements of the Flow framework they wish to explore, the navigation task - and the usability of the book - becomes much simpler, and at this level performs its 'remember to...' role extremely well.

As far as TRIZ readers are concerned, *Fishbone Flow* serves as a solid overview of what Lean is and its overall structure and content. There will be some words and concepts that will require a more detailed search outside the bounds of the book itself, but this is not a bad thing.

The book is designed for an audience familiar with Lean. As such it is interesting to note that as well as connecting TRIZ into the Lean story at a philosophy level, the book makes multiple TRIZ connections at the detailed 'remember to...' level, most notably any place where there is a need for new ideas. Most encouragingly, TRIZ finds its way into the 'understanding customers' (Ideal Final Result and 9-Windows) and 'sustaining flow' fish-bones. In the 'sustaining flow' section, the book makes significant play of the fact that discontinuous and disruptive innovations will eventually appear to make irrelevant many Lean initiatives (there is no point in 'Lean'ly producing the wrong product), and that the TRIZ trends are extremely powerful ways to identify when and where such perturbations are likely to happen. The big plus as far as a TRIZ person is concerned is that the book places the method on the Lean radar screen. The book doesn't tell a Lean person how to use TRIZ, but it does an excellent job of telling them there is something they should

remember to go and find out about. For this reason alone you should think about sending a copy to all of your Lean friends.

Books can be ordered at www.picsie.co.uk. The price is 6.95GBP.