

Lean Process Improvement

ASQ Hamilton
April 22 2015

D. Paul Scarbrough

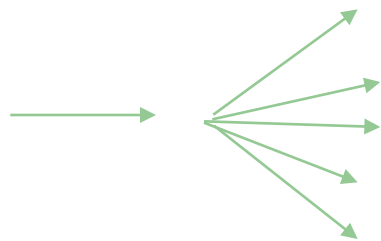
Overview

- *The Big Project and Value/Risk: The Last Mile*
- *The Solution Stack*
- *Optimization vs Improvement: Quality/Lean*
- *Improvement can become Profit*

Can we really talk about 1 new method?

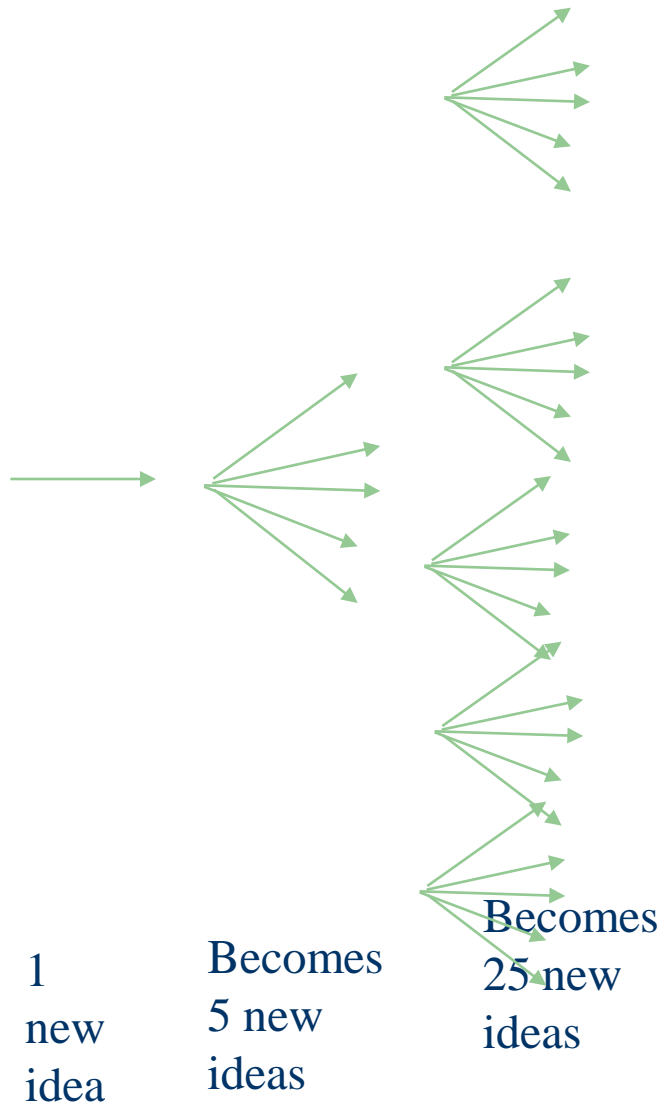


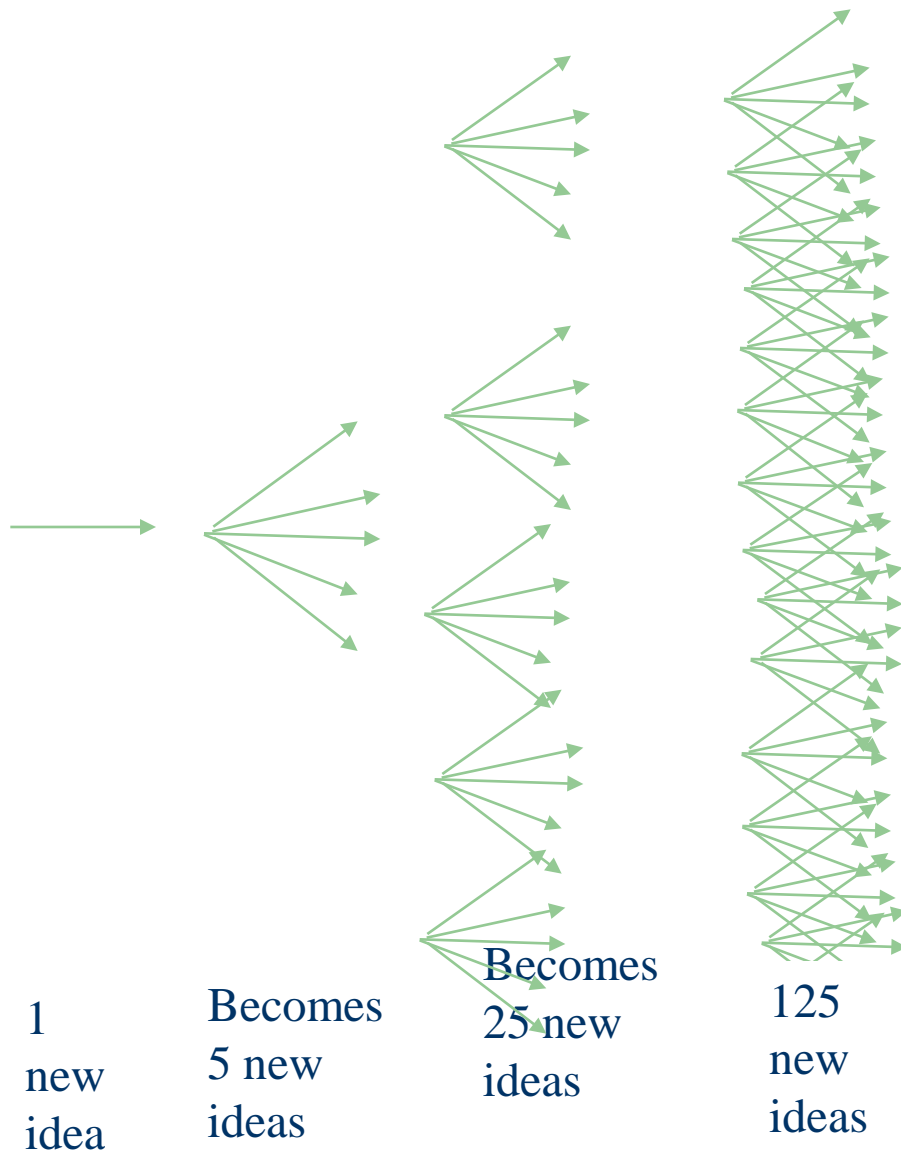
1
new
idea

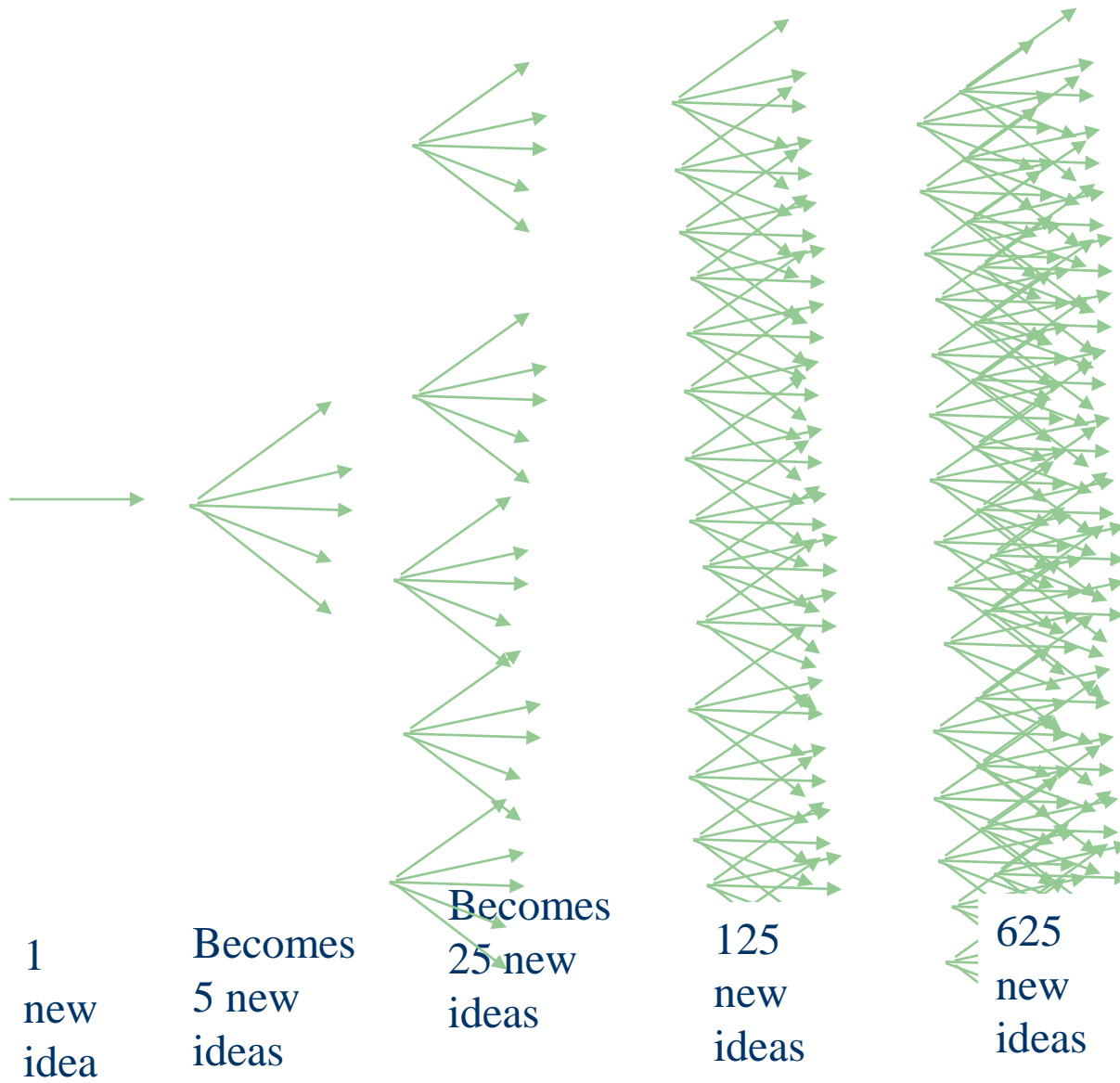


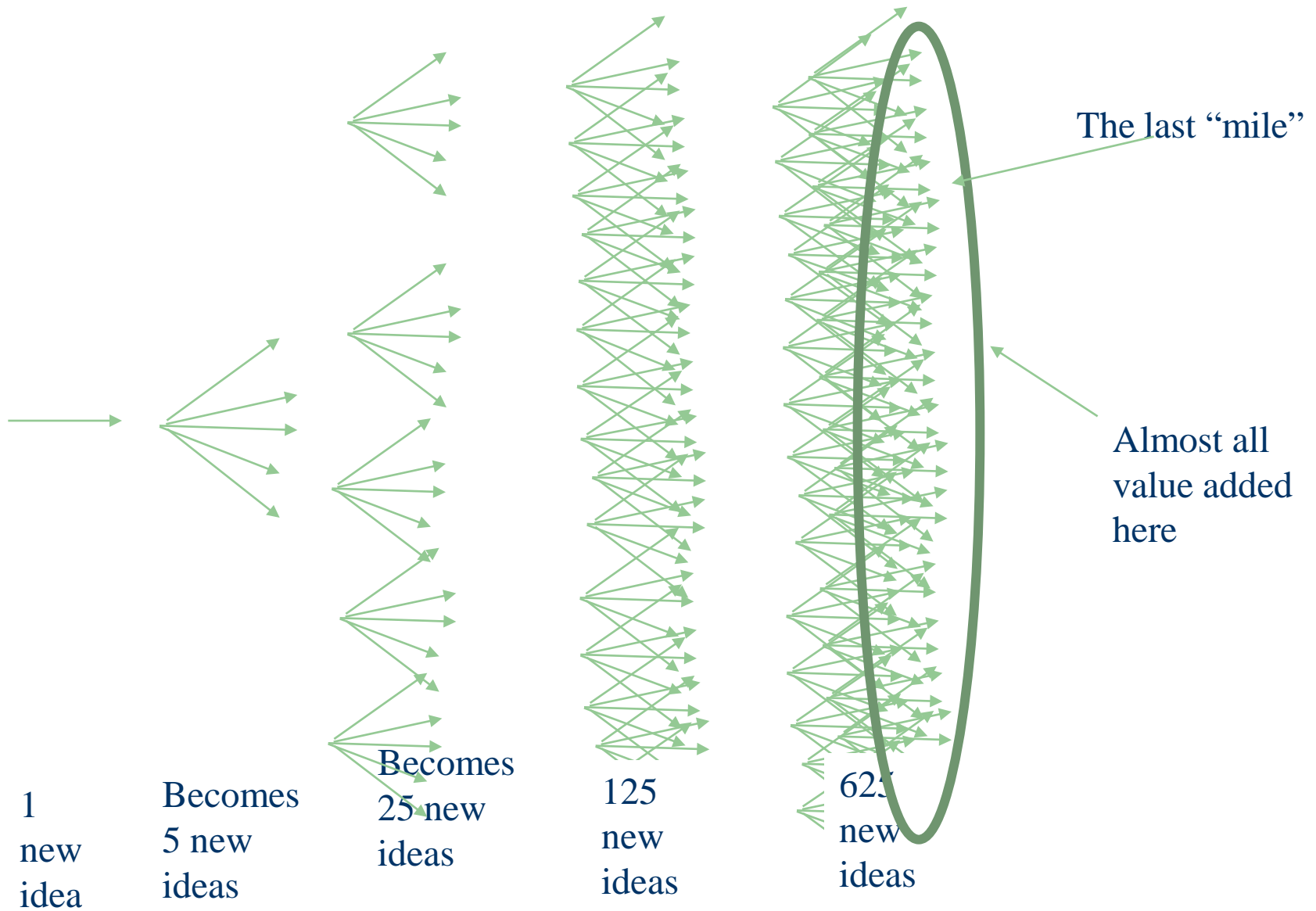
1
new
idea

Becomes
5 new
ideas





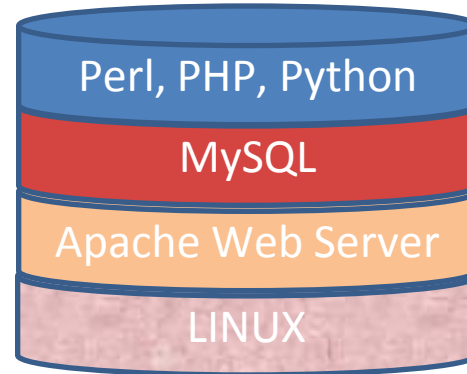




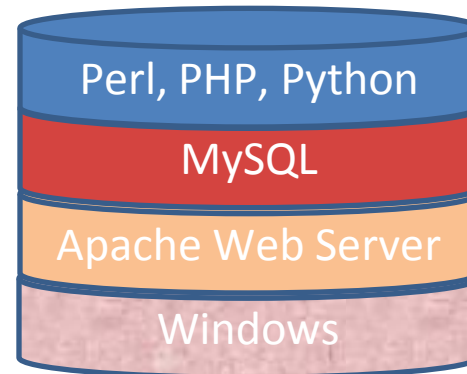
The Solution Stack

Solution Stack

LAMP



WAMP

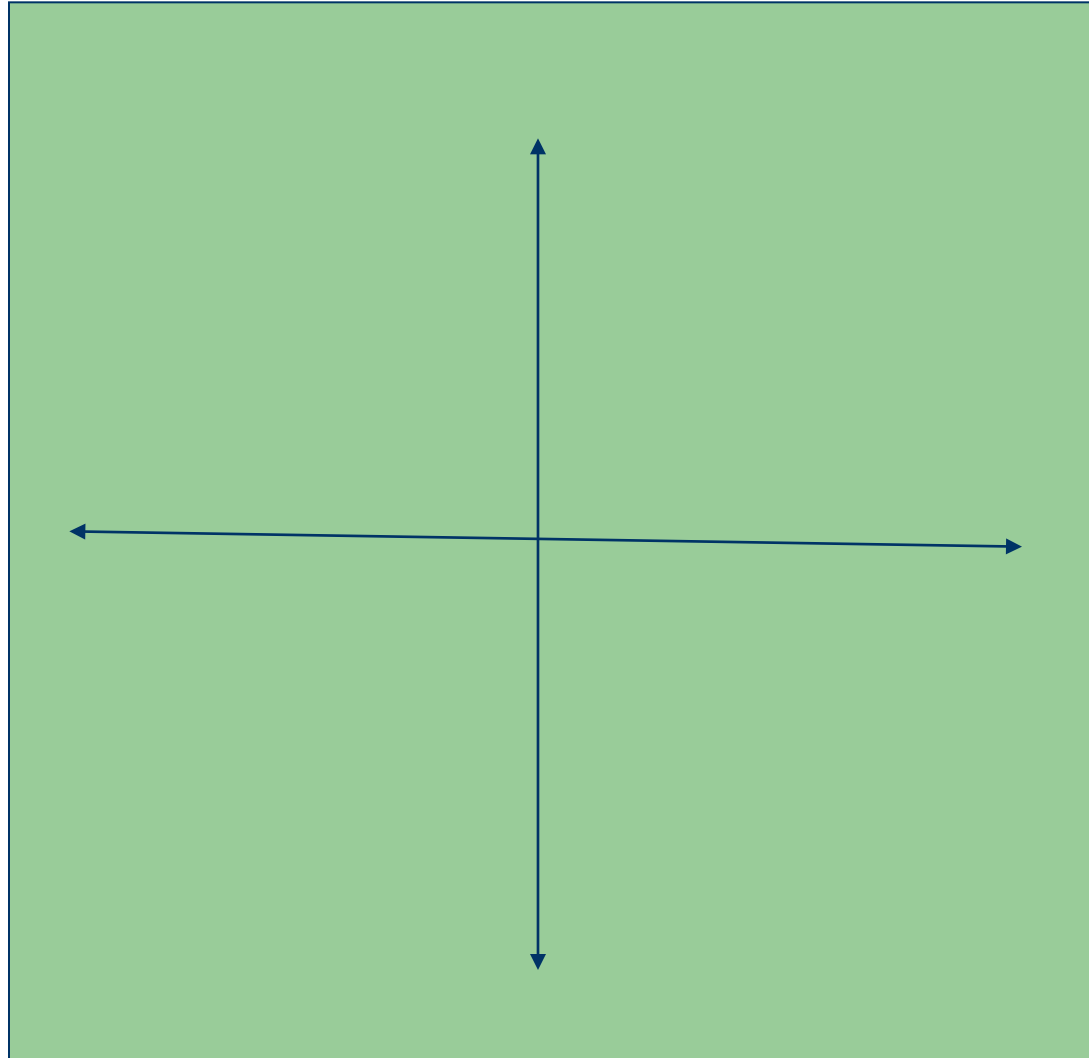


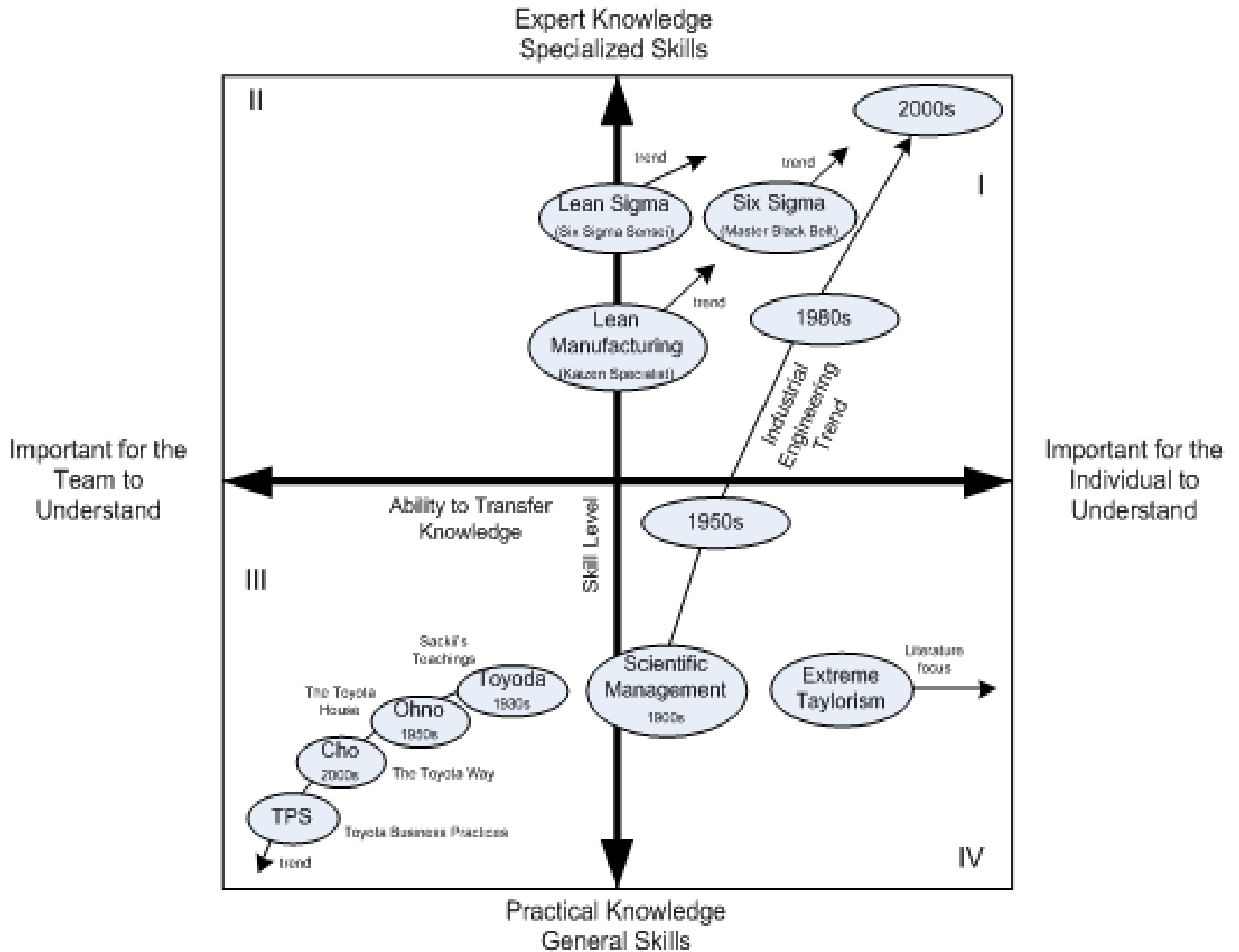
Expert Knowledge
Specialized Skills

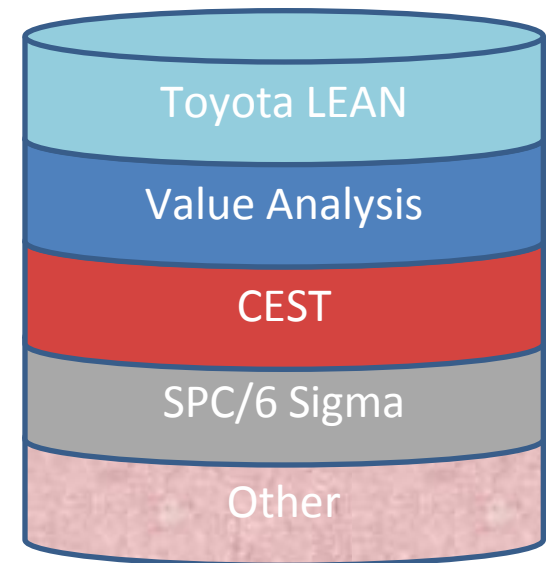
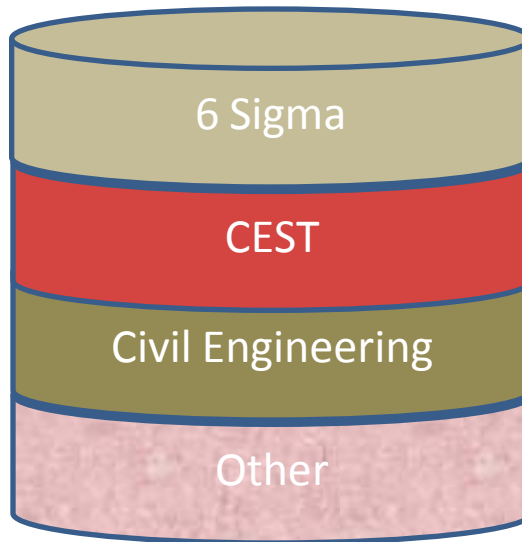
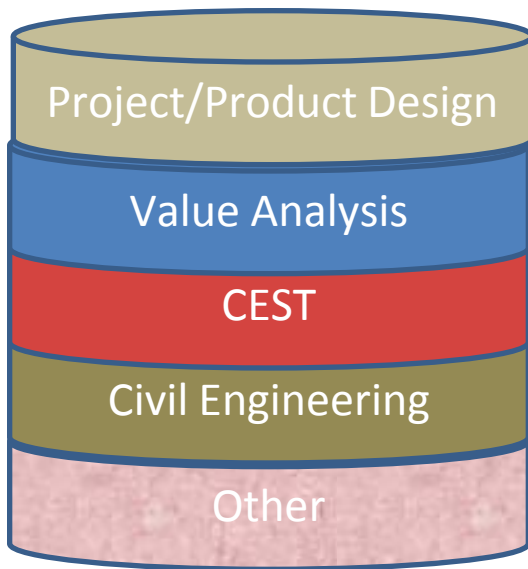
Important for the
Team to
Understand

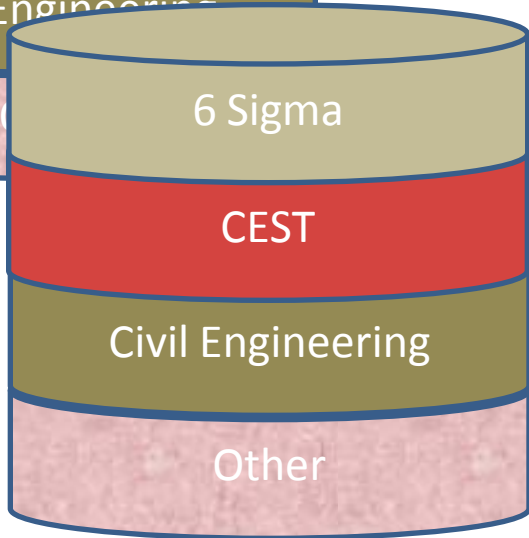
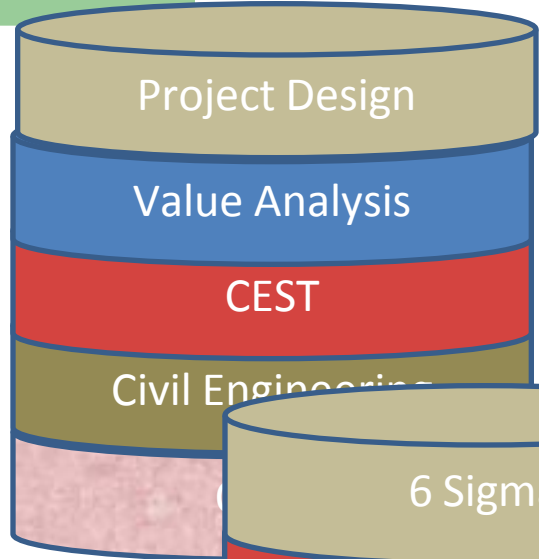
Important for the
Individual to
Understand

Practical Knowledge
General Skills

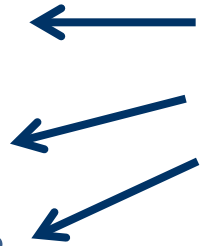




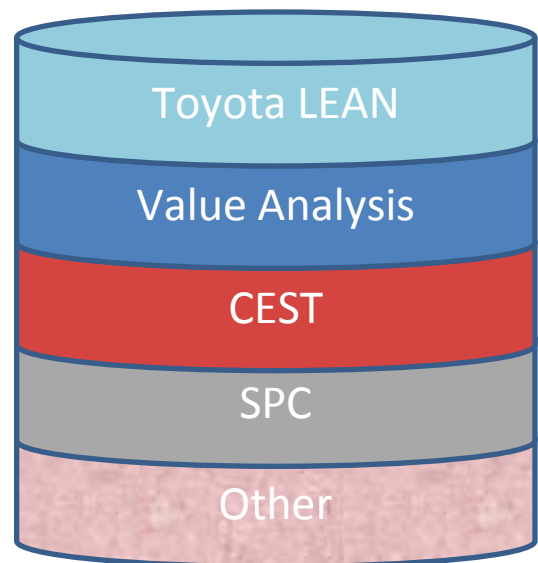
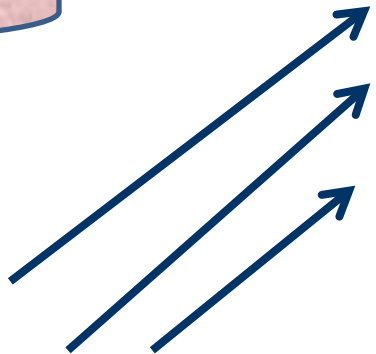




- Few members
- Traditional NA view



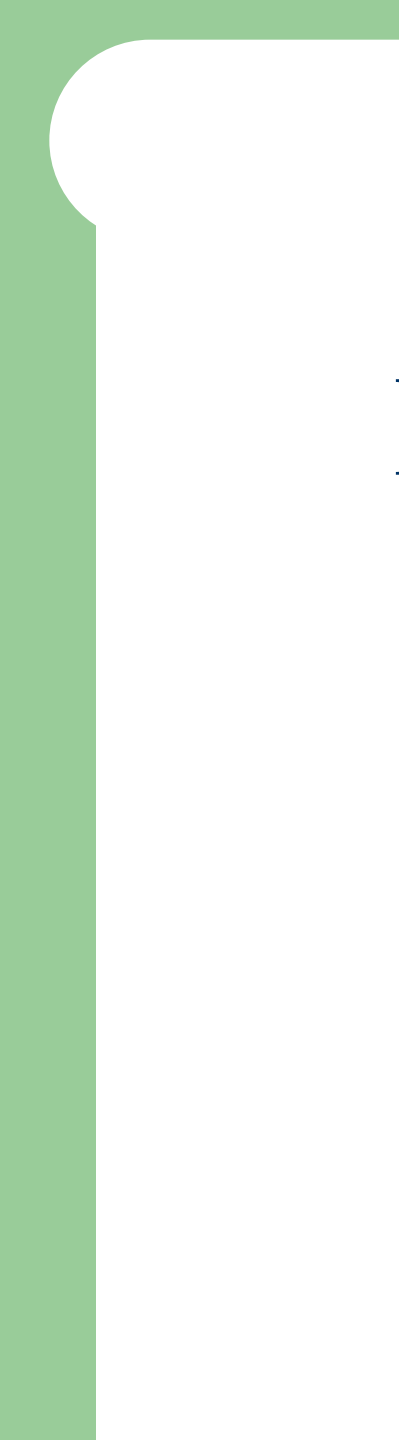
- Many members
- Japanese view



Optimize, or Improve?

Optimize: Get the most out of what you have now.

Improve: Get more by changing what you have into something else.



Improving means
creating new
knowledge

Each Person

Knowns

Unknowns

Known

Unknown

Knowns

Unknowns

Known

Known Knowns

Known Unknowns

Unknown

Unknown Knowns

Unknown Unknowns

	Knowns	Unknowns
Known	Known Knowns	Known Unknowns
Unknown	Unknown Knowns	Unknown Unknowns

Knowns

Unknowns

Known

knowledge

Missing knowledge

Unknown

Tacit knowledge

Ignorance

	Knowns	Unknowns
Known	knowledge	Missing knowledge
Unknown	Tacit knowledge	Ignorance

Knowns

Unknowns

Known

knowledge

Missing knowledge
(optimization)

Unknown

Tacit
knowledge

Ignorance (improvement)

Knowns

Unknowns

Known

knowledge

ERP
Data Analytics
EOQ
Survey (closed)

Unknown

Tacit
knowledge

Value Analysis
Lean
TQM
Survey (open ended)

Optimization techniques

ERP

Business Process

Reengineering

Data Analytics

ABC/ABM

6 Sigma *

SPS

TQM/TQC aspects

Improvement techniques

TQM aspects

TQC aspects

Lean

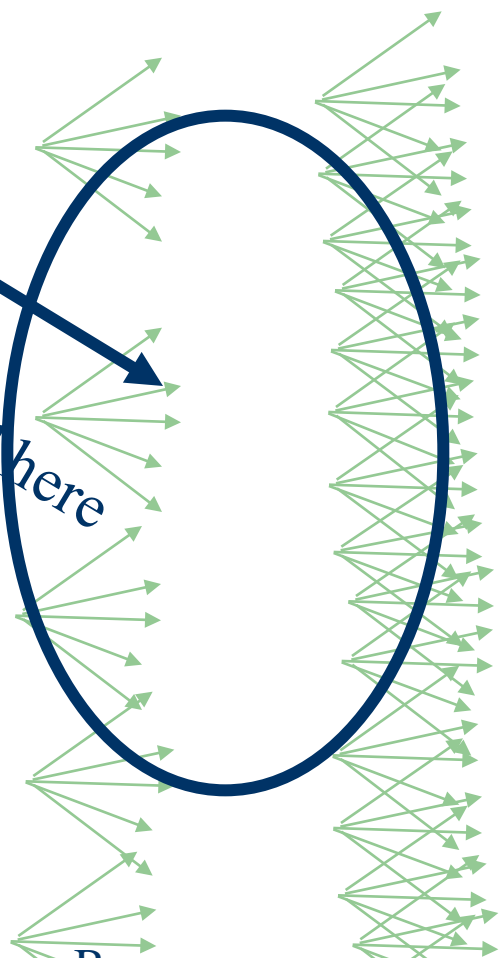
Value Analysis

6 Sigma *

..

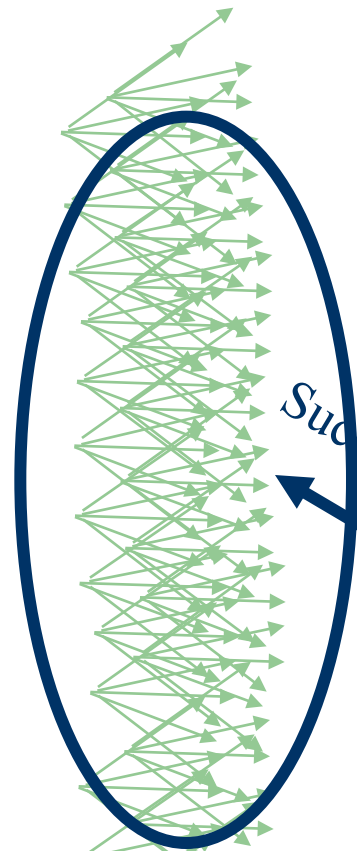
Optimization
techniques
ERP
Business
Process
Reengineering

Success
determined here



Becomes
25 new
ideas

125
new
ideas



Success determined here

VA
TQM
TQC
Lean

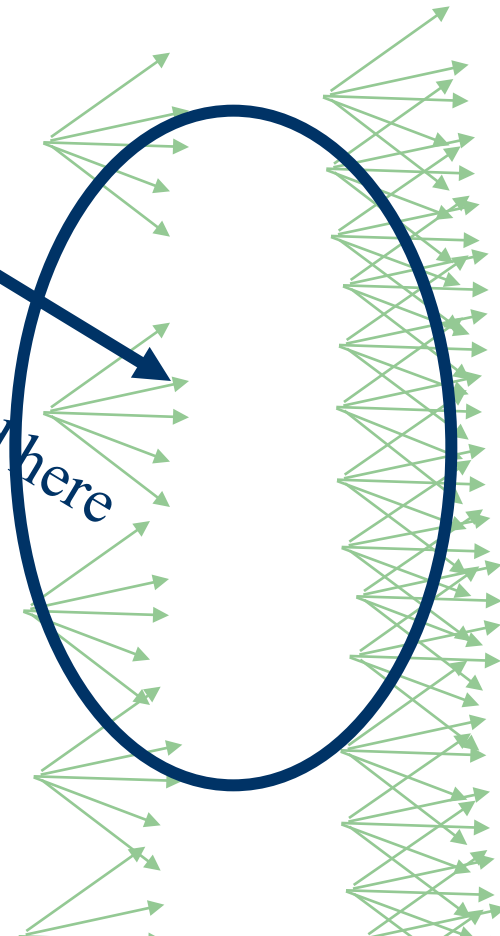
625
new
ideas

1
new
idea

Becomes
5 new
ideas

Optimization
techniques
ERP
Business
Process
Reengineering

Success
determined here

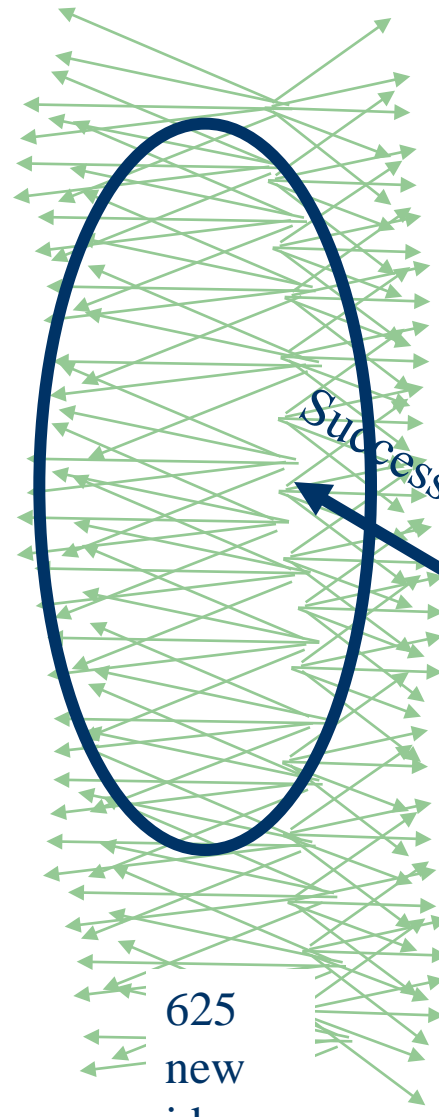


Becomes
25 new
ideas

125
new
ideas

1
new
idea

Becomes
5 new
ideas



Success
determined here

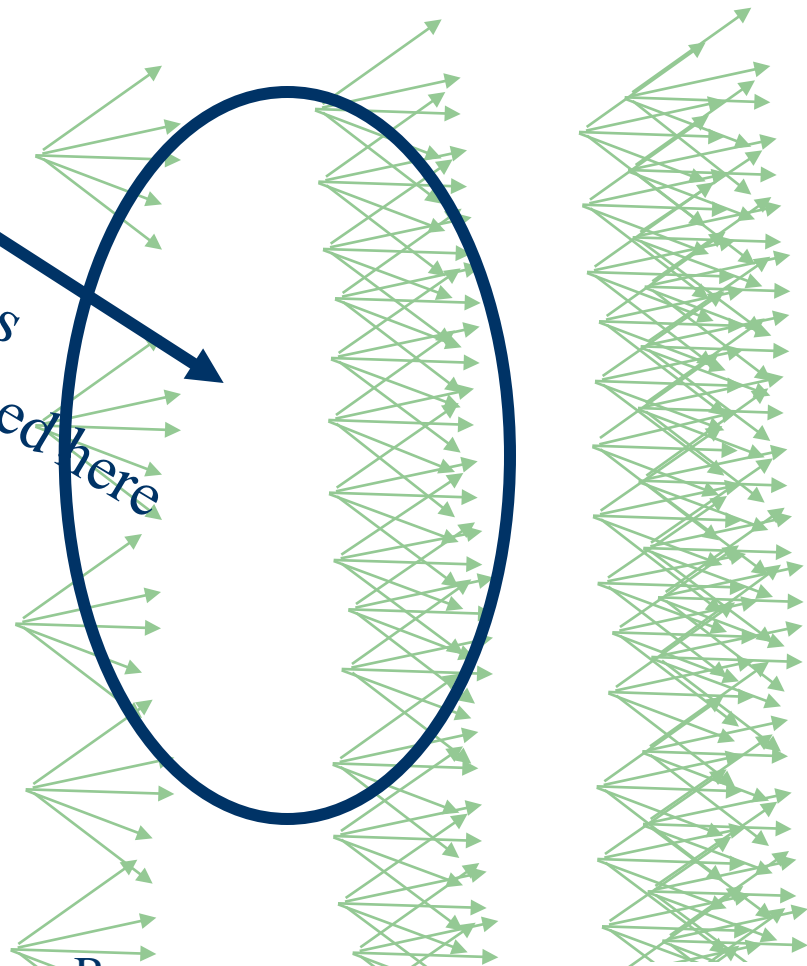
VA
TQM
TQC
Lean

625
new
ideas

Traditional Western methods are designed
NOT to depend on the Last Mile

Optimization
techniques
ERP
Business
Process
Reengineering

Success
determined
here



1
new
idea

Becomes
5 new
ideas

Becomes
25 new
ideas

125
new
ideas

625
new
ideas

Taylorist/Fordist type of production builds in an assumption of a weak Last Mile and constructs extensive buffers against failure at the Last Mile

Inventory

Incentive

Inspection

Taylorist/Fordist type of production builds in an assumption of a weak Last Mile and constructs extensive buffers against failure at the Last Mile

Inventory *buffers*

Incentive *buffers*

Inspection *buffers*

Improvement-oriented Collaborative methods depend on the “last mile” more than traditional methods

Examples:

Value Engineering/Value Analysis

Total Quality Management

Total Quality Control

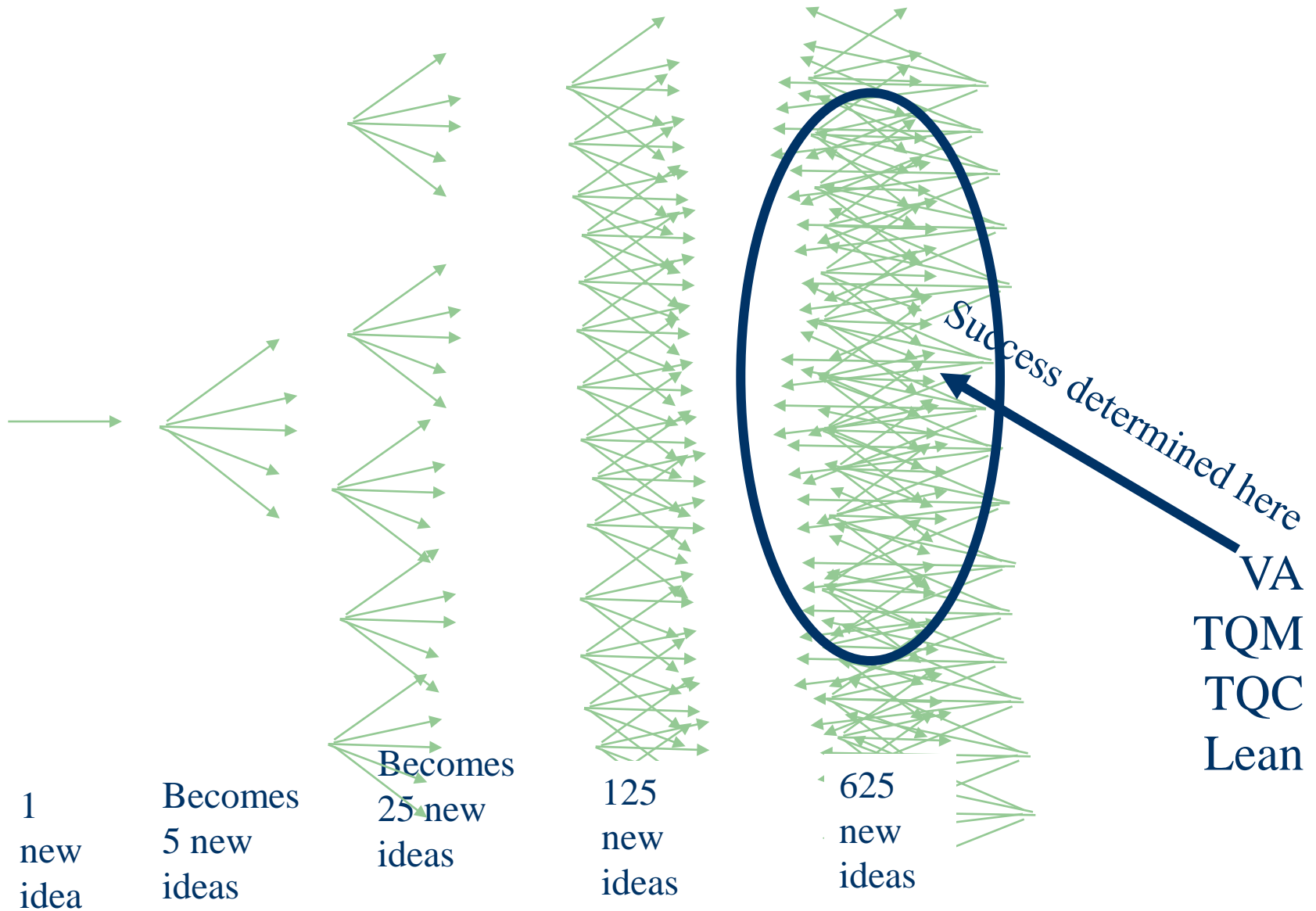
Total Productivity Maintenance

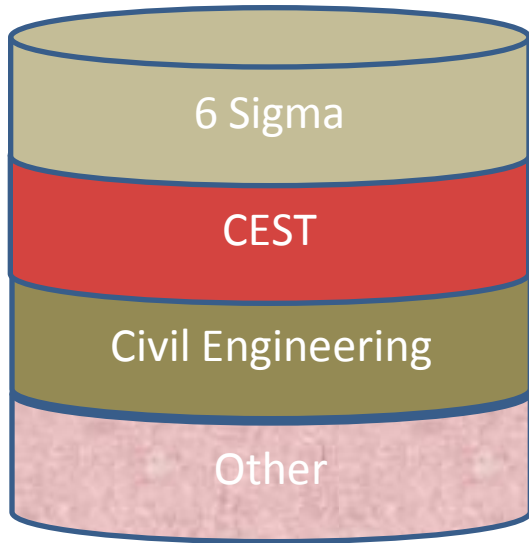
Lean Production

Just In Time

Improvement-oriented

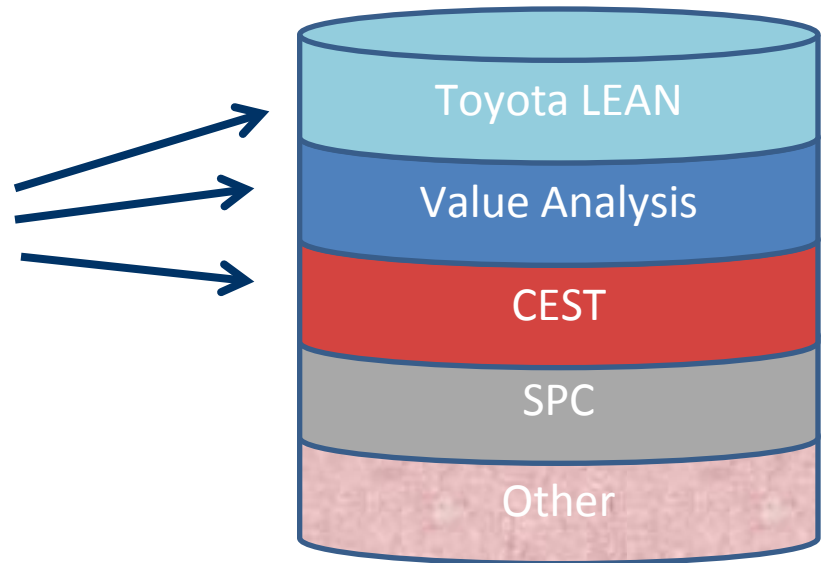
Collaborative methods

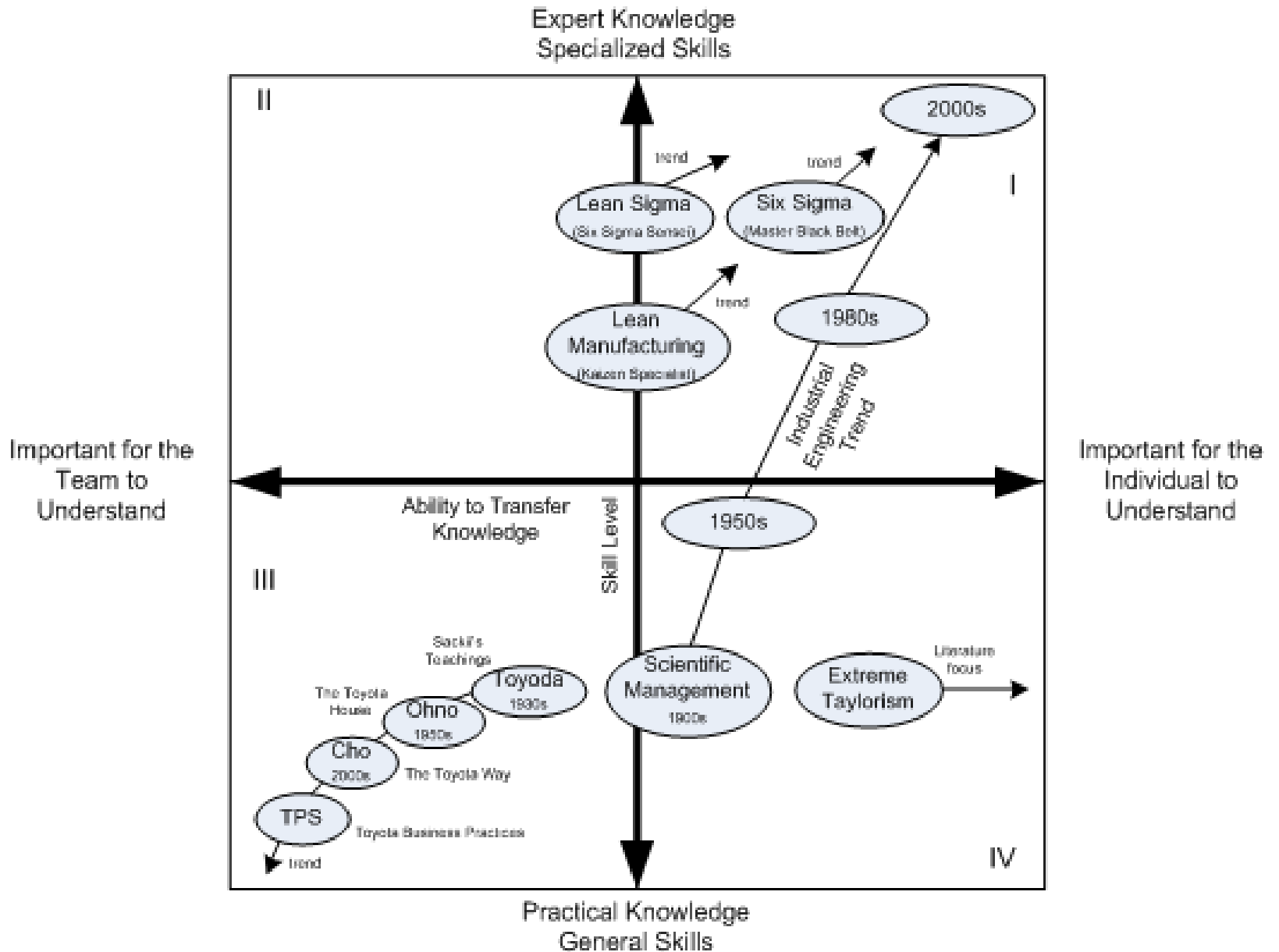


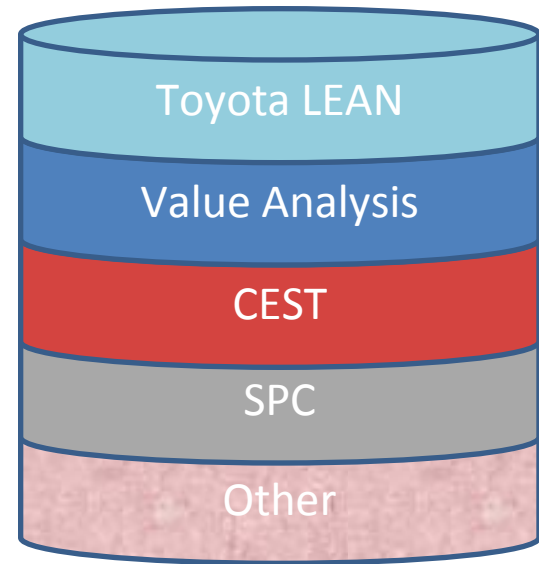
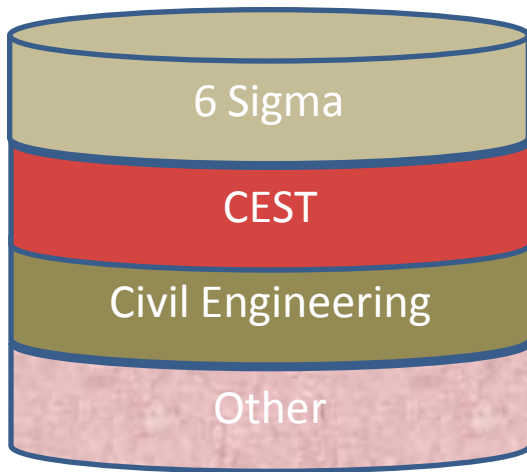


- Few members
- Traditional view of VA

- Many members
- Japanese view of VA







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