

**Process Excellence Solutions
By
ANEXAS DENMARK**

LSSPI
**Lean and Six Sigma
Performance
Improvement**

BUSINESS

By

anexas
CONSULTANTS

www.anexas.net

**About
Anexas Denmark**

- **Anexas is a global network of attached professionals and organizations serving the wide spectrum of industries. We operate in various countries and have more than 100 professionals working with member firms and partners around the world.**
- **Our mission is to provide committed, customized and efficient service to our customers and assist the organizations and individuals to achieve breakthrough results**
- **Trained more than 1000 professionals across the world from various industries**
- **Black Belts certified by Anexas are well placed in organizations globally like Siemens, Ford, Tata Consultancy, Eicher, Office Tiger, Deutsche Bank, AXA, Riyadh Bank, Apollo Hospitals, Hewlet Packard, Tata Sky, King Khaled Hospital, etc.**

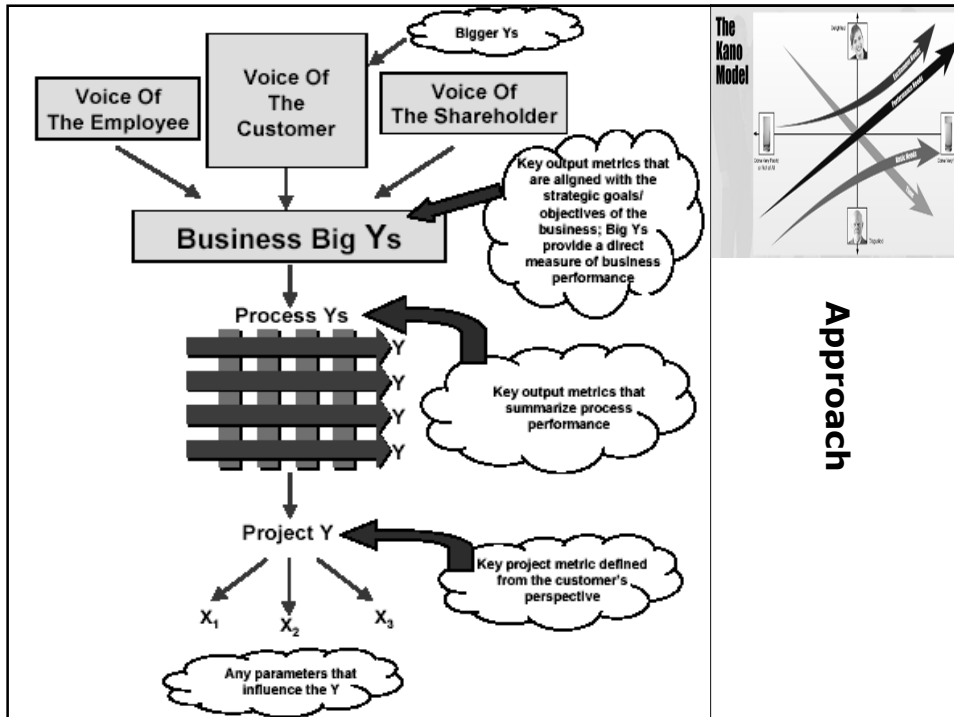
Lean Six Sigma Performance Improvement

LSSPI

from
Anexas

A business philosophy based on proven statistical and problem solving techniques designed for quantum leap improvements

- Unique approach that is based on intense research from our extensive implementation experiences
- An approach focused on empowering your organization to create and sustain transformations through transfer of knowledge in terms of infrastructure, strategy, methodology & tools
- A business excellence model based on Lean and Six Sigma that would enable you to drive your business vision and objectives
- A proven methodology deployed across organizations world over with dramatic client benefits in terms of cost savings and overall customer satisfaction



Voice of Customer

LSSPI

from
Anexas

What does it
mean for
customers



Reduction in:

- ✓ Costs
- ✓ Defects
- ✓ Waste
- ✓ Rework
- ✓ Cycle-Time

Improvement in:

- Quality
- Production Efficiency
- Productivity
- Customer Satisfaction
- Capacity
- Profitability
- Competitive edge

Engagement with Anexas

LSSPI

from
Anexas

Infrastructure

Training

Support

Transition

A Four Phased Approach

Our Approach...

We work with our client through the entire LSSPI implementation with the aim of turning knowledge into value at each step



Engagement with Anexas



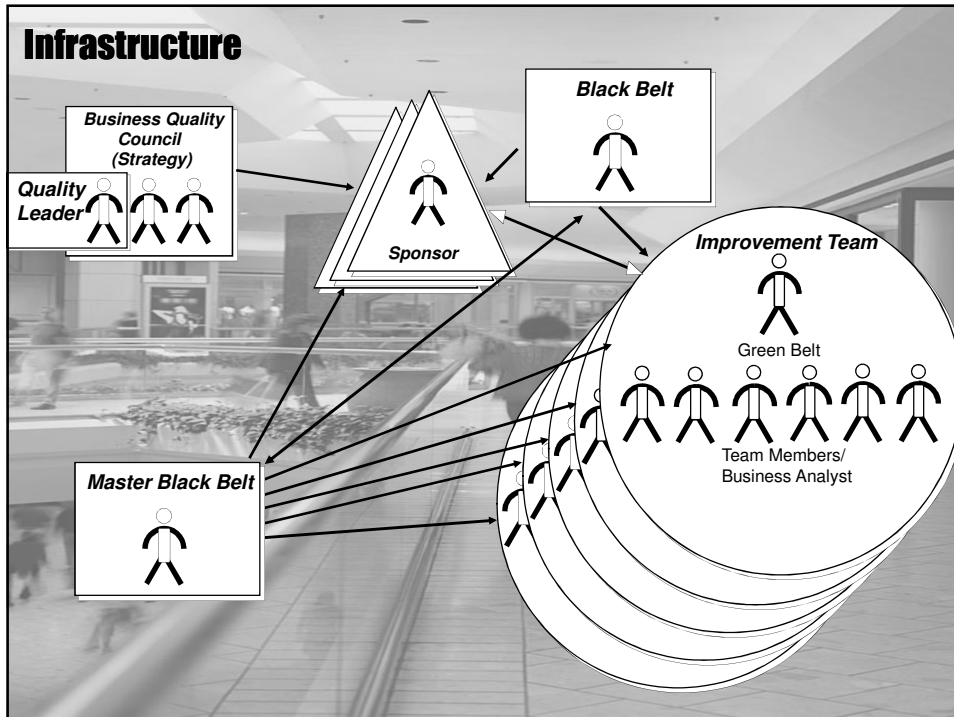
It is about teams of employees working to improve process quality – every step of the way

Each improvement project is lead by a highly trained agent of change – A Green Belt/ Black along with the team

For every project there is a senior management sponsor or Champion

The Approach

Six Sigma projects are selected based on the “voice of the customer” and strategic business objectives



Engagement with Anexas



Training Plan

- Training is conducted for 8-10 days onsite
- Training can be conducted continuously for 10 days or spread over 2-3 months (2-3 days per week)
- Every participant attending the training does process improvement project which leads to **FINANCIAL GAINS** to his organization
- This is to ensure that participants are able to apply learning from the class room, and implement it in their work place and come back with queries in the next session
- Thus participants work on live projects along with the training
- Fortnightly review of the projects and training done by Anexas

We also conduct Open House training programs in Bangalore, Riyadh, Copenhagen, London, New Delhi, Mumbai, Pune, Chennai, Hong Kong, Mysore, Hyderabad, Kolkata, Nagpur and Bhilai

Engagement with Anexas

Infrastructure

Training

Support

Transition

Support & review of first wave projects

Black Belt Certification

Facilitation of Transition Plan

Our Clients

Our BB Participants are placed in:

And many more.....



**Lean Six Sigma
It Works !
We make it work for you ...**

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APPENDIX

AGENDA FOR GREEN BELT TRAINING

Time	Day 1	Day 2	Day 3	Day 4
9:30	SPACER	Measure Phase – Data Collection	Details -Measure Phase	Introduction – Improve Phase
10:00	Introduction	Baseline Sigma Calculation	Metrics	Brainstorming techniques and Pilot
11:00	Introduction to Six Sigma	Analyze phase -VA-NVA, Process mapping, Lean tools	Data Collection	Benchmarking, 6-3-5, Pugh matrix, 6 Hats techniques
12:00		Cause & Effect Diagram / Matrix	Sigma level Calculation, Z-st and Z-It	Introduction to Control Phase
13:00	Break	Break	Break	Break
13:45	Define Phase – Project Charter, CTQ, Kano Analysis and SIPOC	Pareto Analysis with Exercise	Presentation skills, Project teams	Control Charts – XBar-R, X-MR, p, np, c, and u charts
14:30	Project Selection by group and Application of DefineTools	Improve Phase – FMEA with exercise	Introduction to Minitab	Control Chart Exercises on Minitab
15:30	Change Management and Stakeholder Analysis	Control Phase – Documentation, Process management Charts	Basic Analysis in Minitab with exercises	Revision
16:00	Basic Statistics – Standard Deviation	Presentations by Participants, Questions and Answers	Project Reviews Presentations by Participants	Exam (Open Book)
17:30	Wrap-up	Wrap-up	Wrap-up	Wrap-up

AGENDA FOR BLACK BELT TRAINING

Time	Day 5	Day 6	Day 7	Day 8
9:30	Revision	Tests for Attribute data	Hypothesis Tests Revision	Full Factorial Experiments Analysis
10:00	Measurement System analysis	Chi Square test	Binary Logistic Regression	Use of Design of Experiments
11:00	Basic Statistical Analysis on Minitab	Correlation and	Hypothesis Tests for non-normal data	Analysis in Minitab with exercises
12:00	Introduction to Hypothesis Testing	Regression	Exercises	Case study - Exercise
13:00	Break	Break	Break	Break
13:45	Test of Means, t- test, Z-test	Exercises	Introduction to Design of Experiments	Revision
14:30	Test of Proportions, 2 proportions test	Multiple Regression	Types of designs	
15:30	Test of means for more than 2 samples - ANOVA	Exercises on Multiple Regression	OFAT design	Exam (Open Book)
16:00	Presentations by participants	Presentations by Participants, Questions and Answers	Full Factorial Experiments	
17:30	Wrap-up	Wrap-up	Wrap-up	Wrap-up



Consultants Profile – Anexas Consulting

Our full time internationally recognized professionals have 8- 20 years of experience in a wide variety of industries and disciplines including six sigma, business process management, simulation, quality auditing, quality assurance/quality control and regulatory compliance and product stewardship.

Our process excellence, assessment and process advisory and services staff holds specialized degrees in various disciplines and have led more than 400 six sigma process improvement projects across the globe. Some of our personnel have been examiners for prestigious quality awards like the North America shared services award, Symbiosis Lean Six Sigma Process Excellence awards, Confederation of Indian Industry (based on EFQM model) Quality Award. Our team members have been involved with numerous six sigma projects resulting in savings of millions of dollars. They have participated as speakers and chairpersons in prestigious conferences across the globe on process excellence like IQPC, NASSCOM, WCBF, Indian Statistical Institute, Marcus Evans, etc.



Consultant Profile (Manufacturing and Services) – Amitabh Saxena

Background

Amitabh Saxena is a Six Sigma Master Black Belt with 19 years of quality related experience in services and manufacturing domains. He is trained in Six Sigma at AXA University, Paris and has implemented Six Sigma and Lean in 7 organizations in India, UK, Middle East and Thailand. By education, he is a Chemical Engineer and MBA (Finance) from Jammalal Bajaj Institute of Management Studies, Mumbai.

Experience Summary (Manufacturing and Services Industries)

Presently Amitabh is with Anexas as Six Sigma Master Black Belt, consulting leading organizations in Europe and Middle East on six sigma and process excellence implementation. His last corporate assignment was as Vice President – Transformation with Deutsche Bank Group. Amitabh has experience in various domains like ITES, banking, manufacturing, petrochemical industries, software organizations, financial and insurance companies. He has worked at senior Six Sigma positions in OfficeTiger-RR Donnelley, AXA, KPMG and was also associated with Quality Mission Project of Indian Statistical Institute; Indo Rama (Thailand) Ltd and Bharat Petroleum.

Work in Process Excellence include:

As Master Black Belt, Amitabh has guided more than 200 improvement projects, trained more than 350 Black Belts and 600 Green Belts. He has also trained more than 1000 middle and senior management personnel in Lean, Balanced Score Card, ISO 9000, Project Management, CMM and Statistical Process Control. He has spoken at global and national six sigma summits for IQPC, Marcus Evans, Indian Statistical Institute, NASSCOM, NIQR, CII, Benchmark and chaired leading conferences on Process Excellence in UK, US, Middle East, India and several European countries. He is also on the panel of judges for North America Shared Services Process Excellence awards and Symbiosis Lean Six sigma Excellence awards.



Anexas Six Sigma Certification Training



6σ

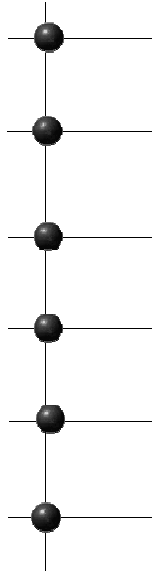
6 Sigma **SSPI** Six Sigma Performance Improvement



Anexas Consulting, India
A group company of
Anexas Denmark



SPACER



Safety

Purpose

Agenda

Code of Conduct

Expectations

Roles

SIX sigma
SIX sigma
SIX sigma
SIX sigma
SIX sigma
SIX sigma

About Anexas Denmark

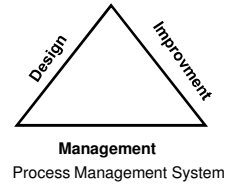


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About Anexas

Anexas is a Six Sigma Training and Consulting organization with presence across the globe



- Group of more than 50 process improvement consultants located in 6 countries across the globe (US, UK, UAE, Saudi Arabia, Singapore and India)
- Black Belts certified by Anexas are well placed in organizations globally
- In India we conduct regular programs in Bangalore, Chennai, Mumbai, Delhi, Nagpur and Bhilai
- For more information visit website www.anexas.net



Now we introduce ourselves...

- *Your name*
- *What you do at your organization*
- *Any one thing which not many people know about you!*

Administrivia

- Breaks
- Lunch
- Cell Phones
- Facilities
- Speed – We are going to move very fast
-
-
-

Expectations

- *Your turn....*
-
-

Achievements Of Companies Who Have Adopted Six-Sigma

ASEA BROWN BOVERI
 BLACK & DECKER
 BOMBARDIER
 DUPONT
 DOW CHEMICAL
 FEDERAL EXPRESS
 JOHNSON & JOHNSON
 TEXAS INSTRUMENTS
 J.P. MORGAN
 3M
 GE
 SONY

KODAK



NAVISTAR
 POLAROID
 SEAGATE TECHNOLOGIES
 SIEBE APPLIANCE CONTROLS
 CITIBANK
 TOSHIBA
 ALLIEDSIGNAL/HONEYWELL
 GLAXCOSMITHKLINE

RELIANCE INDUSTRIES
 LARSEN & TOUBRO
 ABB
 CITI BANK
 ALLIEDSIGNAL - INDIA
 GTL Ltd

WIPRO
 GODREJ
 MARUTI UDYOG
 BAJAJ AUTO
 SATYAM COMPUTERS
 MODI XEROX

History of Six Sigma

- Conceptualized at Motorola during 1979 management meeting and

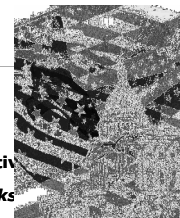
executive

"The real problem at Motorola is that our quality stinks"

- Chief Executive Bob Galvin threw a challenge in 1981 to achieve 10 fold improvement in a span of five years.

- Bill Smith, an engineer of Motorola presented a paper in 1985, established in a correlation between the extent of repair a product underwent during manufacturing and its field life.

- Mikhel Harry, subsequently developed a structured Six Sigma approach.



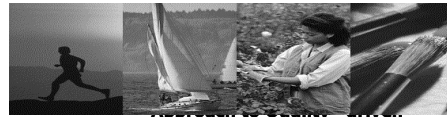
Motorola



1st recipient -
Malcolm Baldrige
Award 1988

- Savings \$ 15 billion in 11 years
- Sales grew over 9 years by 4.6 x
- Mfg costs reduced by \$ 1.4 billion from 1987 to 1994
- Profits went up 9.2 x
- Stock rose 5.5 x
- Pager order to shipment came down from 56 days to < 1 hour
- Cycle time to file patents came down from 2 years to < 90 days

- Pioneered the 80's Quality movement in US



by Total Customer Satisfaction (TCS)

- Key drivers of TCS were Six Sigma and Cycle Time Reduction



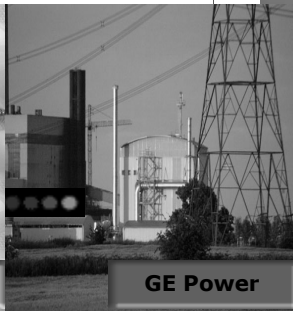
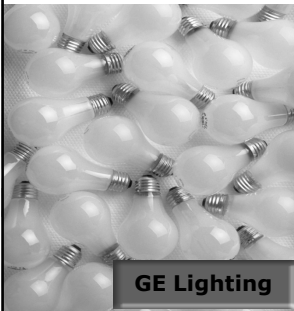
Most

We bring good things to life.

- 2000 Projects Deployed
- Benefits \$12 billion over 5 years
- Annual benefits over 2.5 billion
- 1% increase in uptime



"The best Six Sigma projects begin outside the organisation not inside. How can we make our customer more competitive? What is critical to my customers success?"
GE, Dis



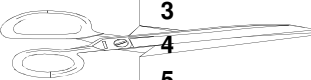
Understanding the Differences

SIGMA	AREA	SPELLING	MONEY	TIME	DISTANCE
3 σ	Floor space of a small hardware store	1.5 misspelled words per page in a book	\$2.7 million indebtedness per \$1 billion in assets	3 1/2 months per century	Coast-to-coast trip
4 σ	Floor space of a typical living room	1 misspelled word per 30 pages in a book	\$63,000 indebtedness per \$1 billion in assets	2 1/2 days per century	45 minutes of freeway driving in any direction
5 σ	Size of the bottom of your telephone	1 misspelled word in a set of encyclopedias	\$570 indebtedness per \$1 billion in assets	30 minutes per century	A trip to the local gas station
6 σ	Size of a typical diamond	1 misspelled word in all of the books contained in a small library	\$2 indebtedness per \$1 billion assets	6 seconds per century	4 steps in any direction

Getting to Six Sigma

Inspection can get you this far

σ	PPM
2	308,537
3	66,807
4	6,210
5	233
6	3.4



Class Exercise



Class Exercise



Inspection Exercise

Task:

Count the number of times the 6th letter of the alphabet appears in the following text

The necessity of training farm hands for first class farms in the fatherly handling of farm live stock is foremost in the eyes of farm owners. Since the forefathers of the farm owners trained the farm hands for first class farms in the fatherly handling of farm live stock, the farm owners feel they should carry on with the family tradition of training farm hands of first class farmers in the fatherly handling of farm live stock because they believe it is the basis of good fundamental farm management.

Inspection Exercise - Solution

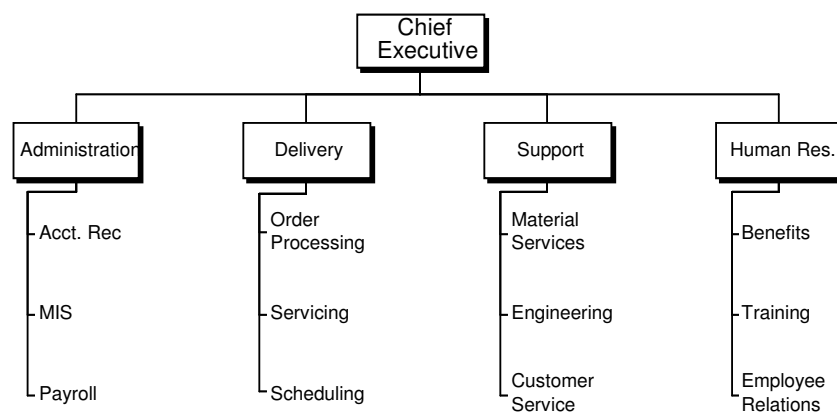
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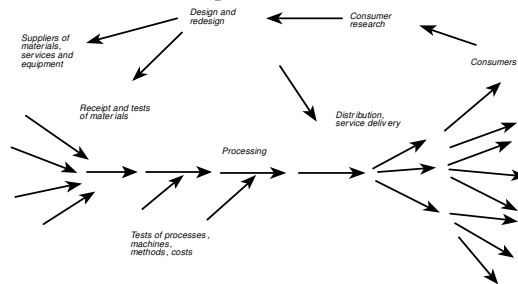
Systems Thinking

Conventional View of Business



Section 1 p-8

What We Mean by "System"



W E Deming 1950

A network of interdependent components which work together to achieve the main aim

W E Deming 1993

Section 1 p-5

CB Vision and Mission

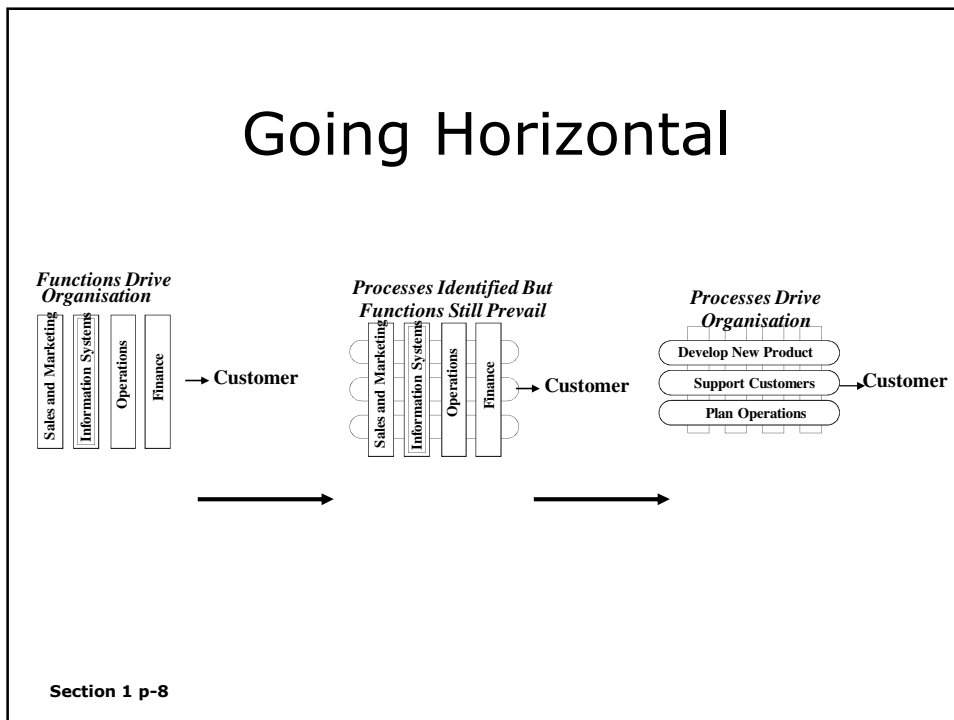
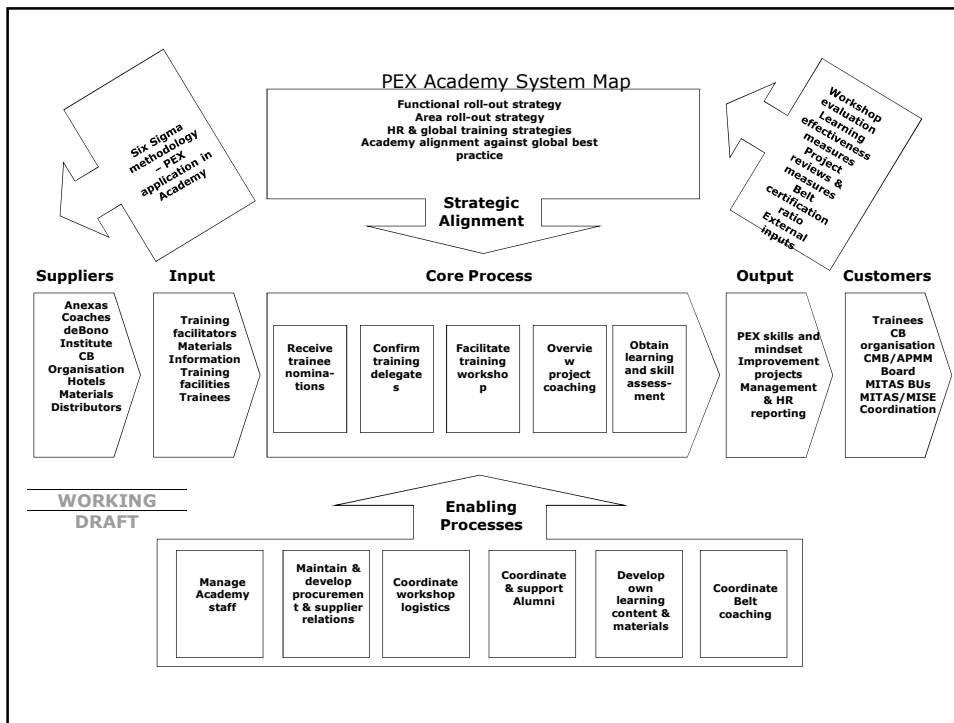
Our vision

We create opportunities in global commerce

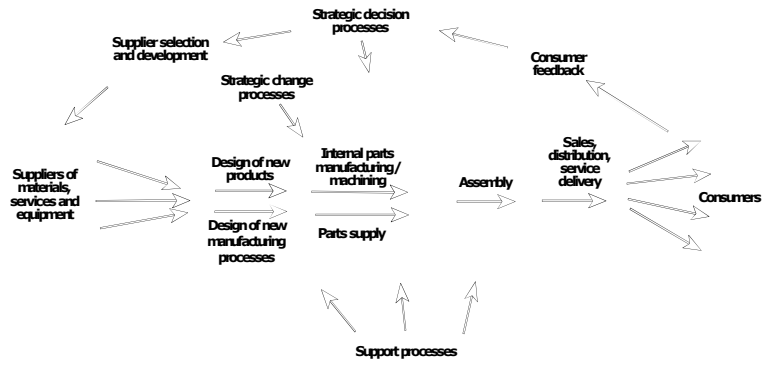
Our mission

We will fulfill our vision by:

- Truly understanding our clients and their business
- Offering second-to-none transportation solutions
- Being profitable - and delivering sustainable, profitable growth
- Continuously reducing costs and increasing efficiency
- Offering our colleagues personal growth and a motivating place to work
- Being innovative
- Being good corporate citizens



A Manufacturing System



A Service System

