

Continuous Improvement (CIP)

All About

Amin Kaboli

Week 1, Session 1, Feb 21st, 2025

CIP Team – Penguin Team

Coaches



Gaetan



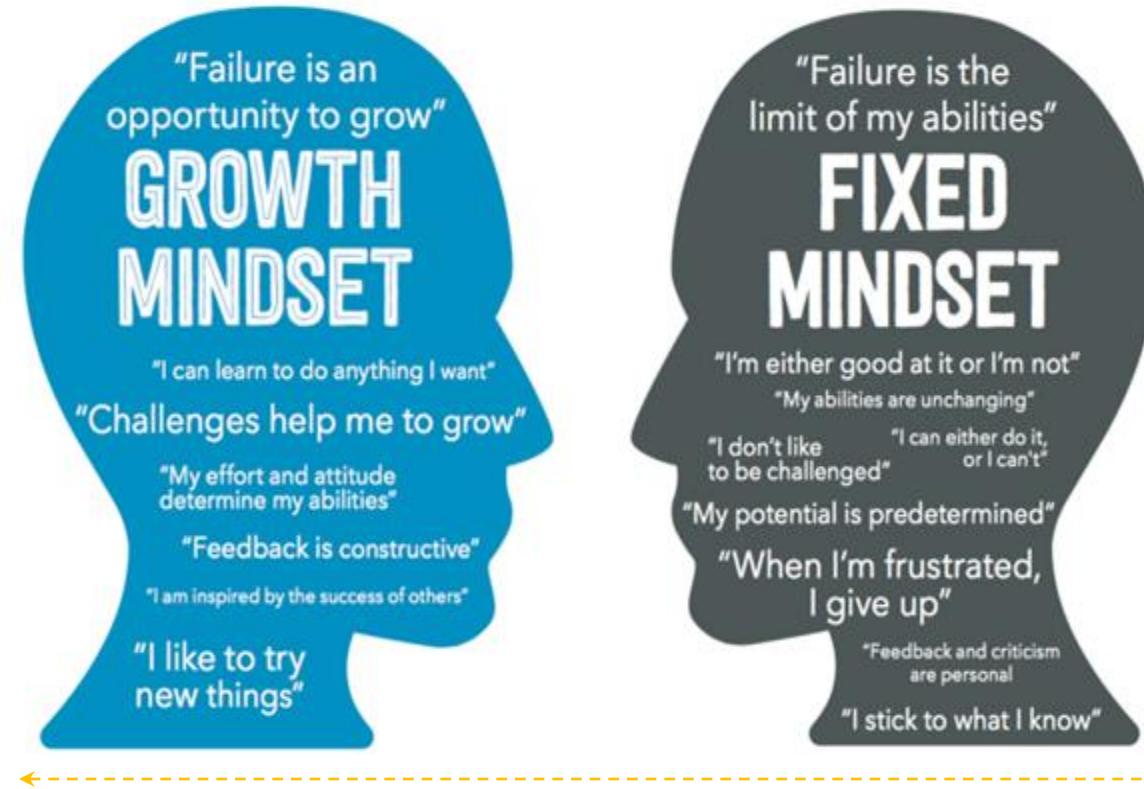
Jack

Instructor



Amin

Agreement #1 – Cultivate Growth Mindset



We are here to learn, embrace setbacks, and mistakes

Agreement #2 – Disconnect to connect



Turn off your phone
Or put it on silent mode



Penalty

Agreement #3 – Connect & Bond with Class



Listen twice
and speak once

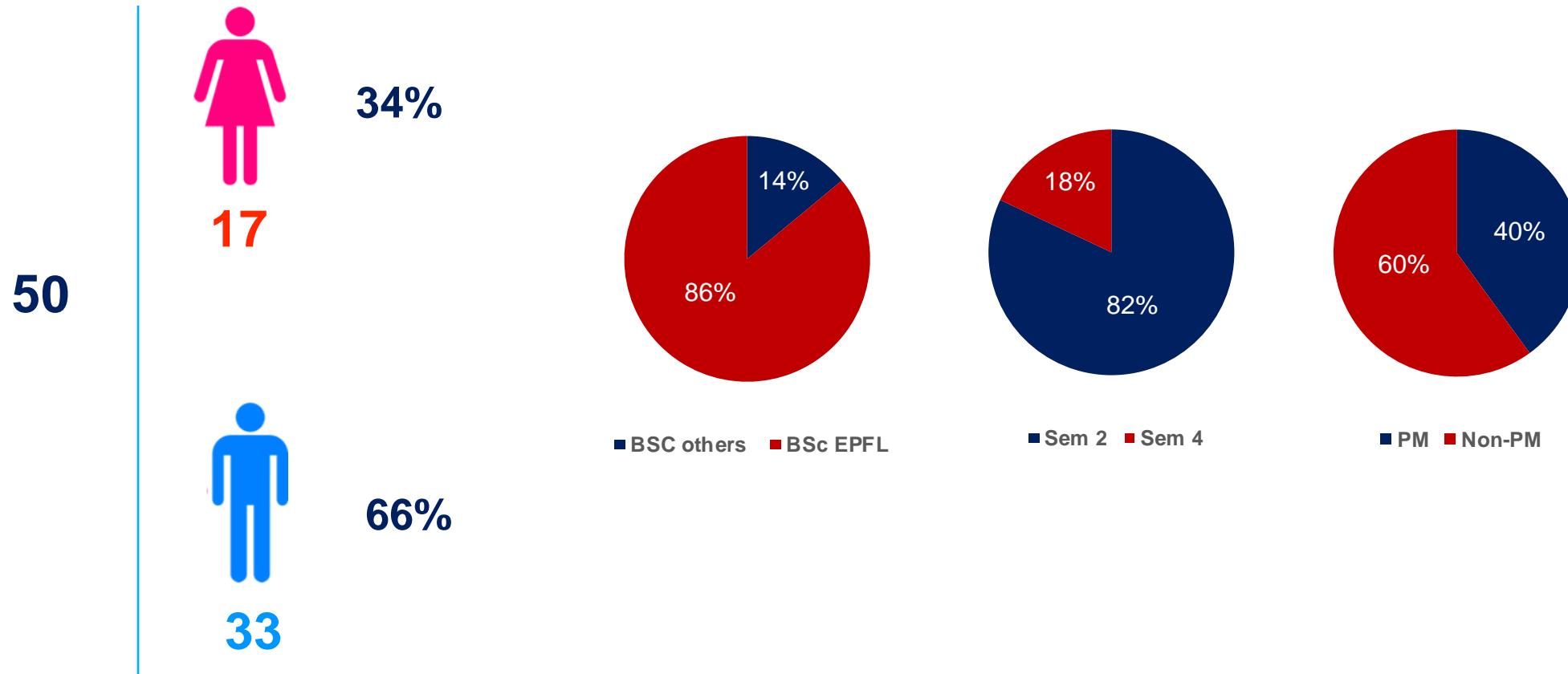


Effective Communication
4-sentence rule



Question?
Raise your hand

CIP25 – Statistics



About You?



1



Meet your classmates

2



Introduce yourself

Your name

Why did you take this course?

What is special about you?

3

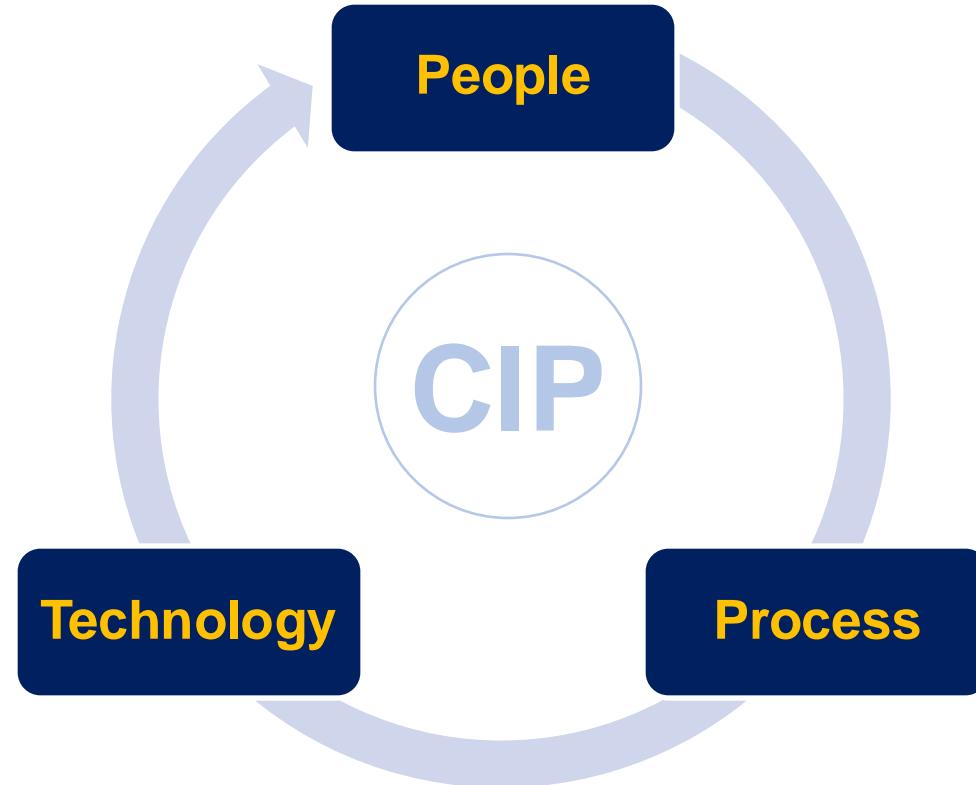


Listen and connect

Agenda

- **13:15 – 14:00** Introduction to Continuous Improvement(ME-498)
 - Class statistics
 - The course objectives, framework, structure, assessments, ...
 - Motivation and expectations
 - Assessment methods and success factors
 - Summary of seven Agreements

Continuous Improvement (CIP)



The Course Objectives



Understanding how a company can **change and improve**.



Recognizing the **critical challenges** that a company may face during change.



Analyzing **change and improvement plan** of given product/company.



Knowing how to **lead change and make improvement** for a given product/company.

The Learning Outcomes

By the end of the course, the student must be able to:



Understand **fundamentals of change and improvement**.



Evaluate and analyze a system based on **key performance indicators**.

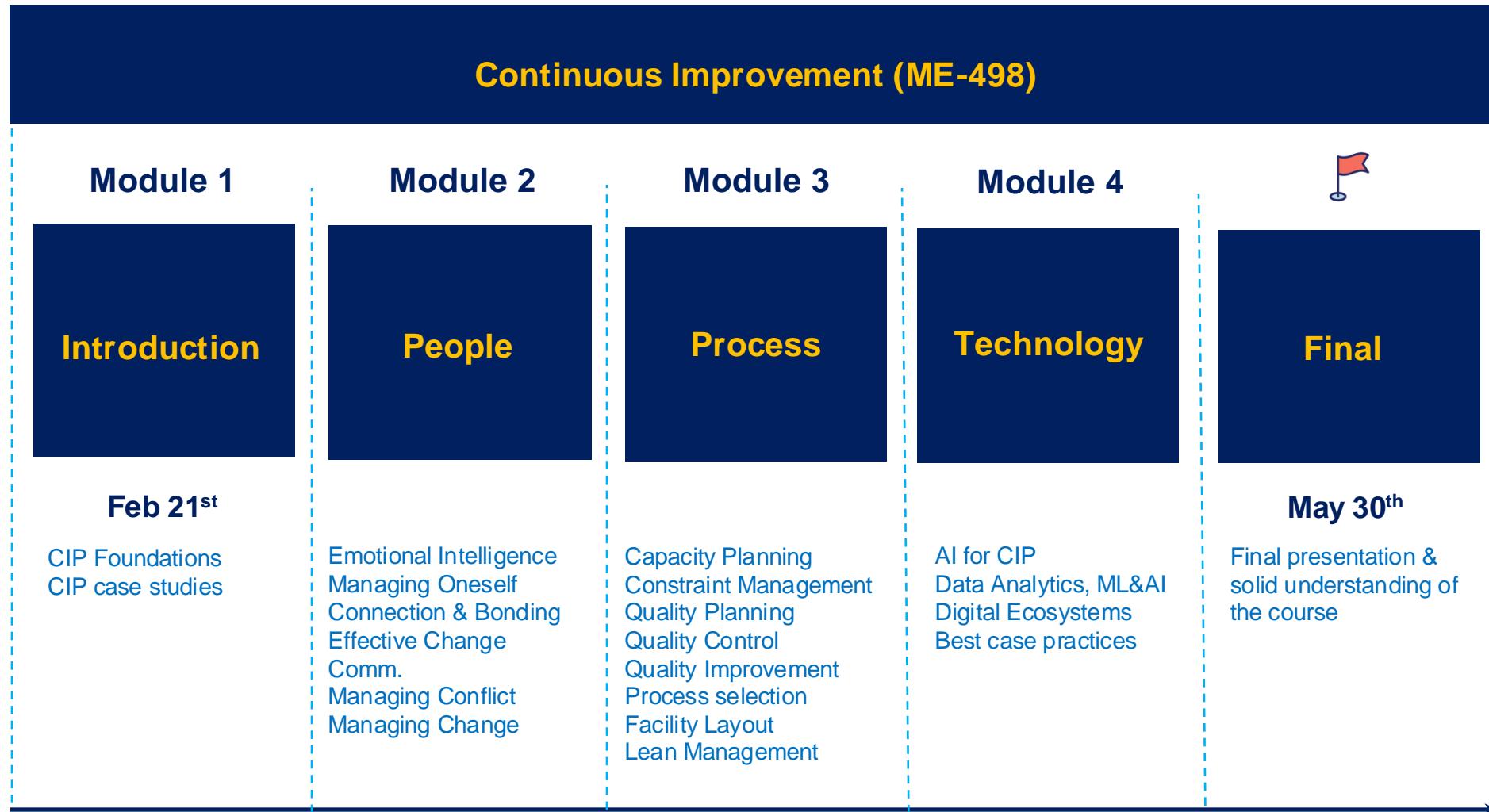


Design and execute a **change and improvement plan** for a system.

Course Framework



Change Plan
Strategic plan



Course Weekly Plan

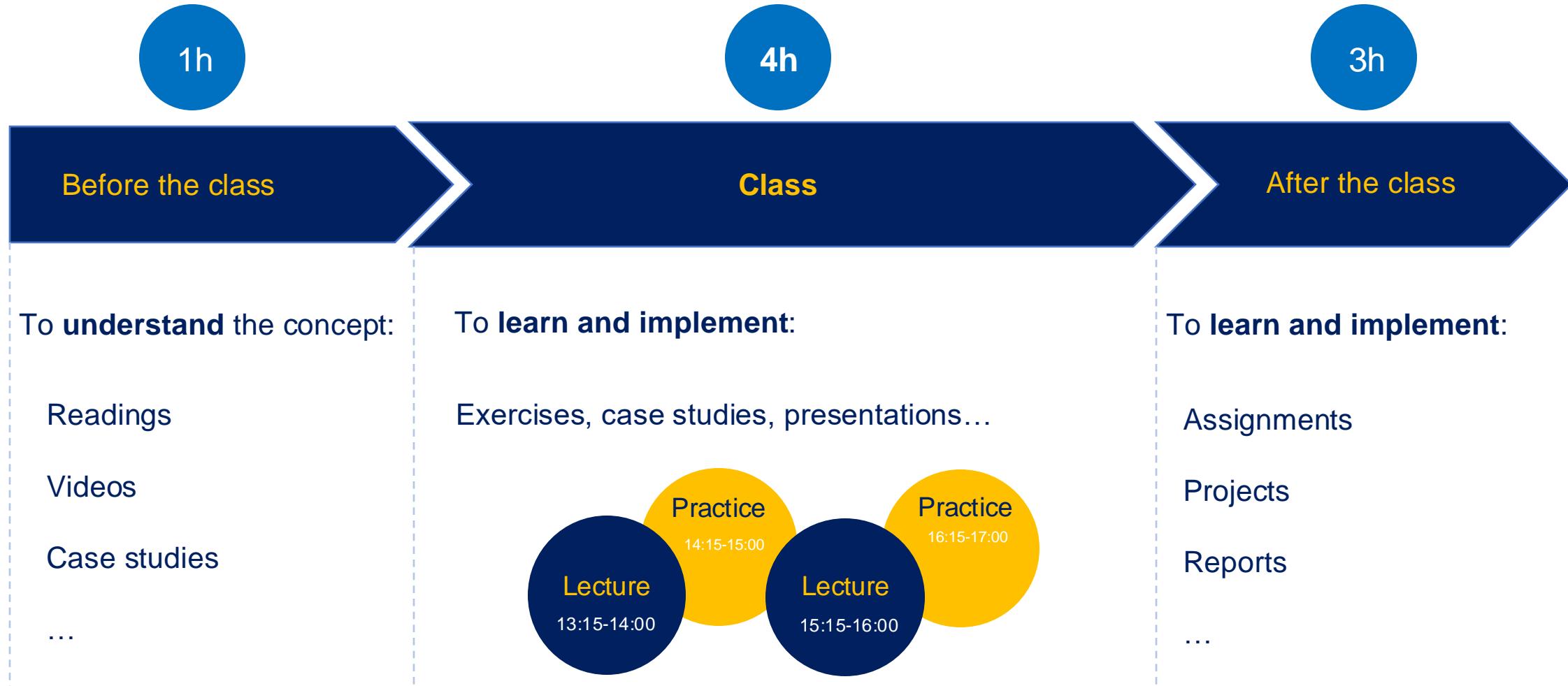


Weekly Announcement
on Moodle

Block Schedule
(Subject to change)

Continuous Improvement of Manufacturing Systems - CIP - (ME-498)								
Student Journey	Date	Student Activity	Week	Learning objectives	Session 1: 13:15-14:00	Session 2: 14:15-15:00	Session 3: 15:15-16:00	Session 4: 16:15-17:00
Students will decide to stay or drop the course	21/2/2025	Getting familiar with CIP, course structure, their roles and responsibilities	1	Course introduction, CIP Framework 1. Course introduction and learning objectives. 2. Identify core pillars/frameworks of the course. 3. What is our journey and what will we learn?	Afternoon CIP (Intro, Class size, Course structure, Class policies, ...); grading	Lecture + Play & Practice: CIP Foundations (Technology, Process, People)	Play & Practice: CIP Foundations (Technology, Process, People)	Play & Practice: CIP Foundations (Technology, Process, People)
	28/2/2025	1) Reading the book chapter - Capacity Planning (Page 1- Page 11) 2) Prep for Quiz of Week 3 3) Find a case and receive approval 4) Submission of Assignment 1	2	Introduction to Capacity Planning & Change 1. Understood Capacity Planning - Define capacity, key drivers, and demand alignment. 2. Apply Analytical Tools - Use Excel and simulations for capacity assessment. 3. Explore Change Management - Key aspects of managing change and growth mindset.	In-Class Exercise: Excel (Lindt 1-2)	Lecture + Play & Practice: Capacity Planning	Lecture + Play & Practice: Capacity Planning	Lecture: Managing Change
Happy hour at Sat	7/3/2025	1) Reading the book chapter - Capacity Planning - (Page 11-Page 15) 2) Find a case and receive approval 3) Submission of Assignment 2	3	Understanding Constraint Management and Emotional Intelligence 1. Assess comprehension of key business statistics concepts. 2. Understand how to analyze and manage process constraints effectively. 3. Develop self-awareness and emotional intelligence for leadership	Quiz Business Statistics: Chapter 1, 3, 4, 5, 6, 10 1) 15 min - Quiz (multiple choice) 2) 15 min Q&A 3) 15 min (group discussion in groups (re-grouping) and case study approval)	Lecture: Constraint Management	Lecture + Play & Practice: (Module 2: People) Self-awareness & emotional intelligence	In class discussion of Assignment 2: Case study - Growth Mindset at Microsoft
	14/3/2025	1) Reading the book chapter - Managing Waiting Lines (Page X - Page X) 2) Submission of Assignment 3	4	Introduction to Waiting Lines Management 1. Understand the Fundamentals of Waiting Line Management. 2. Develop Managerial Decision-Making Skills Using Queueing Models 3. Understand the Fundamentals of Waiting Line Management.	Lecture + Play & Practice: (Module 3: Process) Managing Waiting Lines	Lecture + Play & Practice: (Module 3: Process) Managing Waiting Lines	Simulation Game: (Module 3: Process) Balancing Process Capacity	Presentation Assignment 3: Capacity Planning
Student feedback	21/3/2025	1) Reading the book chapter - Quality Planning (Page X - Page X) 2) Submission of Assignment 4	5	Understand Quality Planning and its Impact on Operations 1. Define Quality and explain its importance in manufacturing and service industries. 2. Develop Practical Skills in Quality Tools and Analysis 3. Understand the basics of Quality Control Methods	Lecture + Play & Practice: Quality Planning In-Class Exercise: Excel exercise Assignment 5: Quality Planning	Play & Practice: Quality Control In-Class Exercise: Excel exercise Assignment 5: Quality Planning	Lecture + Play & Practice: Quality Control In-Class Exercise: Excel exercise Assignment 6: Quality Control	Presentation Assignment 4: Managing Waiting Lines

Class Structure (Min 8h/week required)



Assessments – Continuous Evaluation

30%
Final report
100%
Final presentation
understanding of the course



25%
Class engagement
(Presence & Participation)

45%
Class assignments/projects/cases
70%
Presentations
Reports

Learning Disabilities – Inform Teaching Team ASAP



Dyslexia

Affects reading and related language-based processing skills



Dyscalculia

Affects a person's ability to understand numbers and learn math facts



Other

Dysgraphia, Non-verbal learning disabilities, Oral/written language disorder, ADHD, ...

Your Motivation & Expectation(s)



Question 1:

What is your motivation for taking “CIP”?



Question 2:

What do you expect to learn?



Question 3:

What would be an ideal outcome/take away for you?

What Do We Expect From You?



Individual

Respect

Presence

Involvement



Team

Respect

Teamwork

Openness to learn

Key Success Factor – Attention



Self-learning

Reading slides
Hand-outs



Class learning

Play & Practice
Guest speakers



Group learning

Team work
Creating study groups

Resources



Slides



Hand-outs



Case Studies

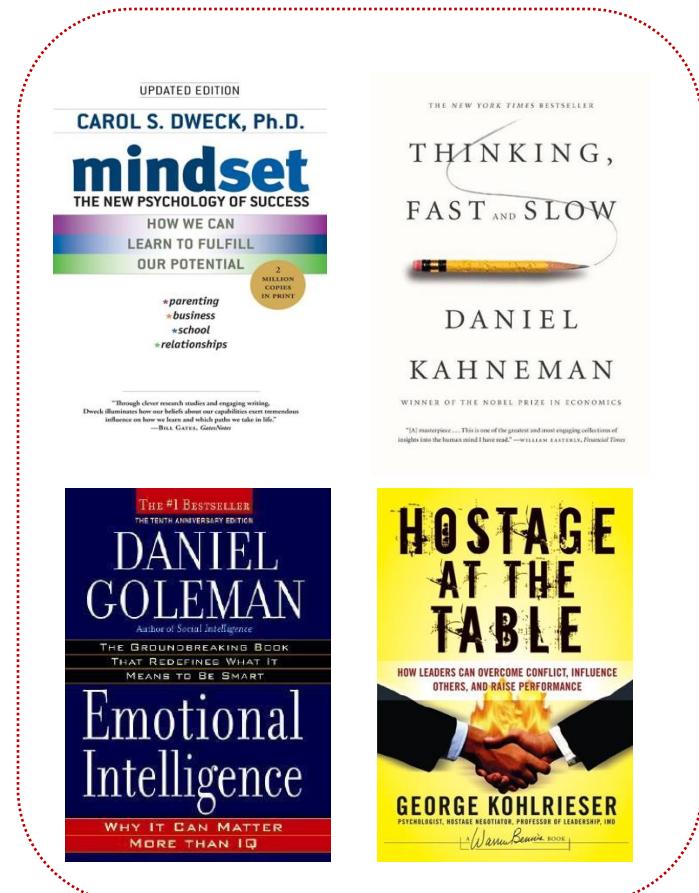


Videos



Books

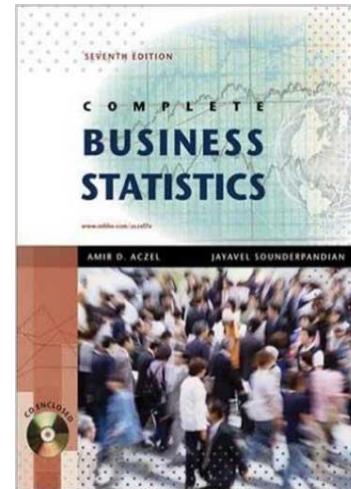
Resources – Selected Books



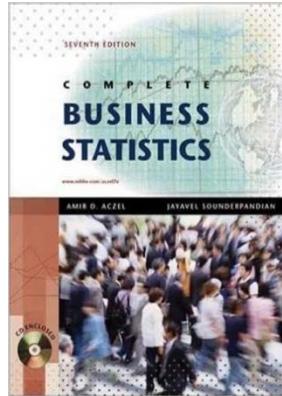
Learning Prerequisites – Required Courses

Required Courses

Probability & Statistics



Quiz – Basic Statistics



Chapter 1

Descriptive Statistics

Chapter 3

Random Variable

Chapter 4

Normal Distribution

Chapter 5

Sampling & Distribution

Chapter 6

Confidence Intervals

Chapter 10

Regression & Correlation

- Chapters are shared on Moodle
- Friday March 7th; Session 1
- Multiple choices on Moodle

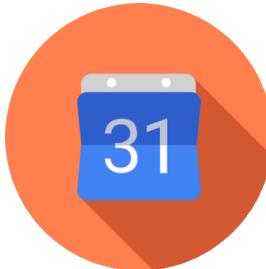
Agreement #4 – Stay Connected/Communicate via Moodle

Continuous improvement of manufacturing systems

Dashboard › My courses › ME-498



Hand-outs



Plans



Data



Slides



Videos, ...

Agreement #5 – Report Professionally



Executive summary/abstract
Conclusion



Problem/Analysis/Outcome

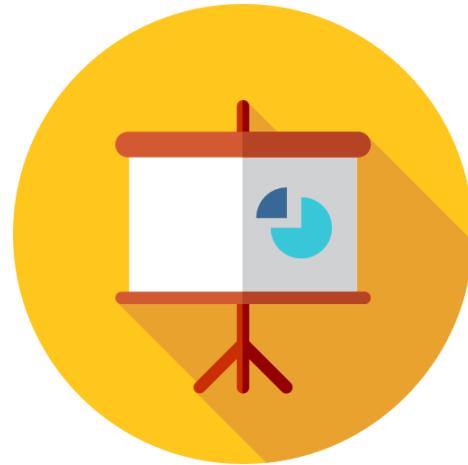


Citation and referencing

Agreement #6 – Present Professionally



Structured, short,
concise, to the point



Visualize
Problem/Analysis/Outcome

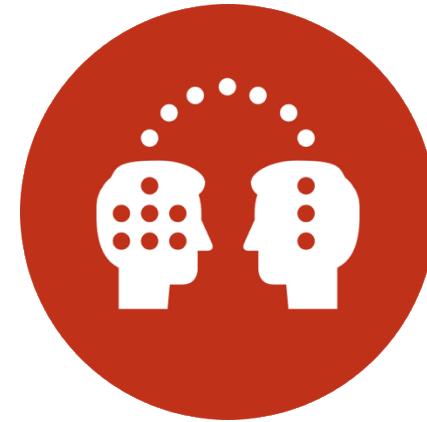


Respect allocated time

Agreement #7 – Giving and Receive Effective Feedback



Feedback is a gift



Feedback/comments are
always welcome

Seven Agreements – Summary



Cultivate Growth mindset



Stay connected off-class (Moodle)



Disconnect to connect



Report Professionally



Connect and bond with your team, coaches, class



Present Professionally



Give and receive effective feedback

7 Reasons to NOT Take This Course

- 1. Friday afternoons (13:15-17:00)**
- 2. Overlap with other courses and participate less than 85%!**
- 3. The course is human-centric and needs your full involvement**
- 4. No passion for products**
- 5. There is no cookbook, and you need to read from different references!**
- 6. High workload and limited time!**
- 7. Disagreement with the seven agreements!**

7 Reasons to Take This Course

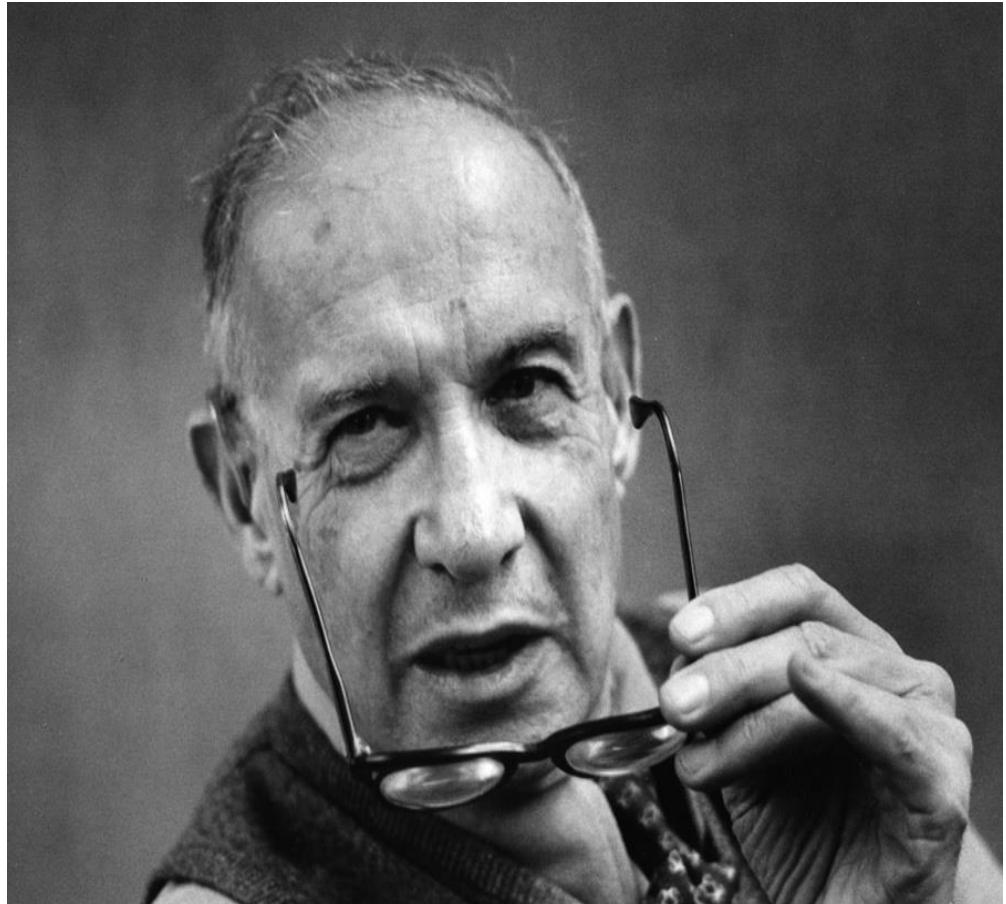
- 1. Set of practical and hands-on skills** that equip you for industry
- 2. Practice how to attend (pay attention)**
- 3. Learn to build authentic connection** with your team, coach, class
- 4. Nurture your passion for product innovation and design**
- 5. Learn how to manage multiple aspects of a process in a tight deadline**
- 6. Learn how industry experts and various companies** manage products
- 7. You master the seven agreements** over the semester

You Have a Choice

“... In a few hundred years, when the history of our time will be written from a long-term perspective, it is likely that the most important event historians will see is not technology, not the Internet, not e-commerce.

It is an unprecedented change in the human condition. **For the first time, literally, substantial and rapidly growing numbers of people have choices.** For the first time, they will have to manage themselves. And society is totally unprepared for it.”

Peter Drucker 1909-2005



Continuous Improvement (CIP23)

Group Formation & Introduction to CIP

Amin Kaboli

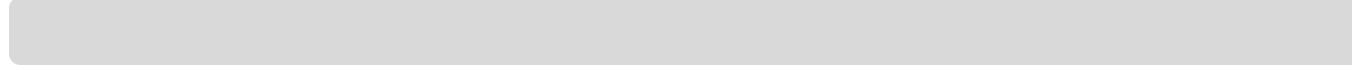
Week 1, Session 2, Feb 21st, 2025

Group Formation

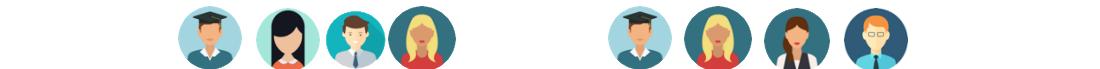


10 Min

7



6



5



4



3



2



1



Ques-cussion?



3 Min

A question-based discussion:

- All interventions must be questions
- Only one question at a time

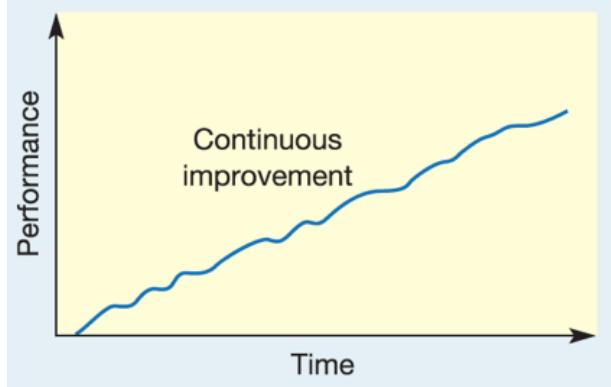
What is Continuous Improvement?

Continuous Improvement – Definition

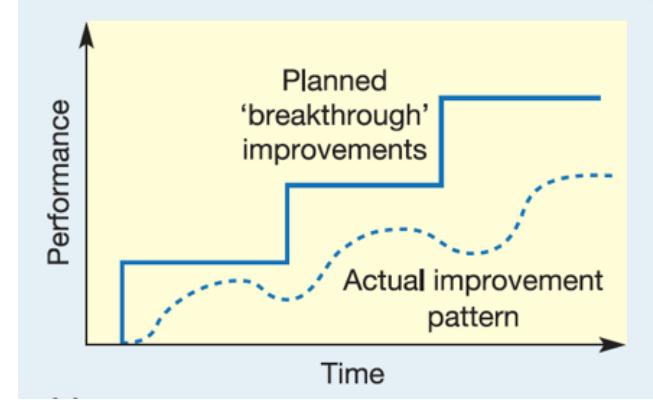


An ongoing effort to improve products, services, or processes.

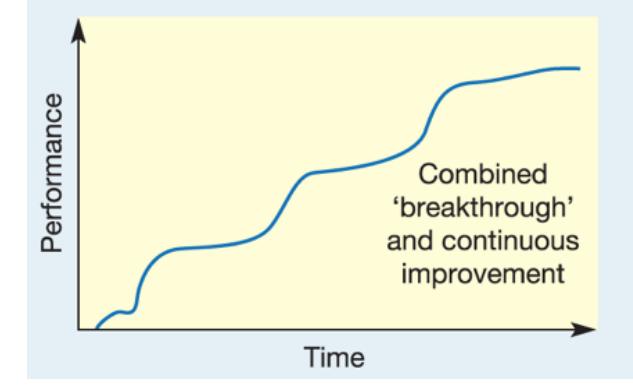
Continuous Improvement – Types



Incremental

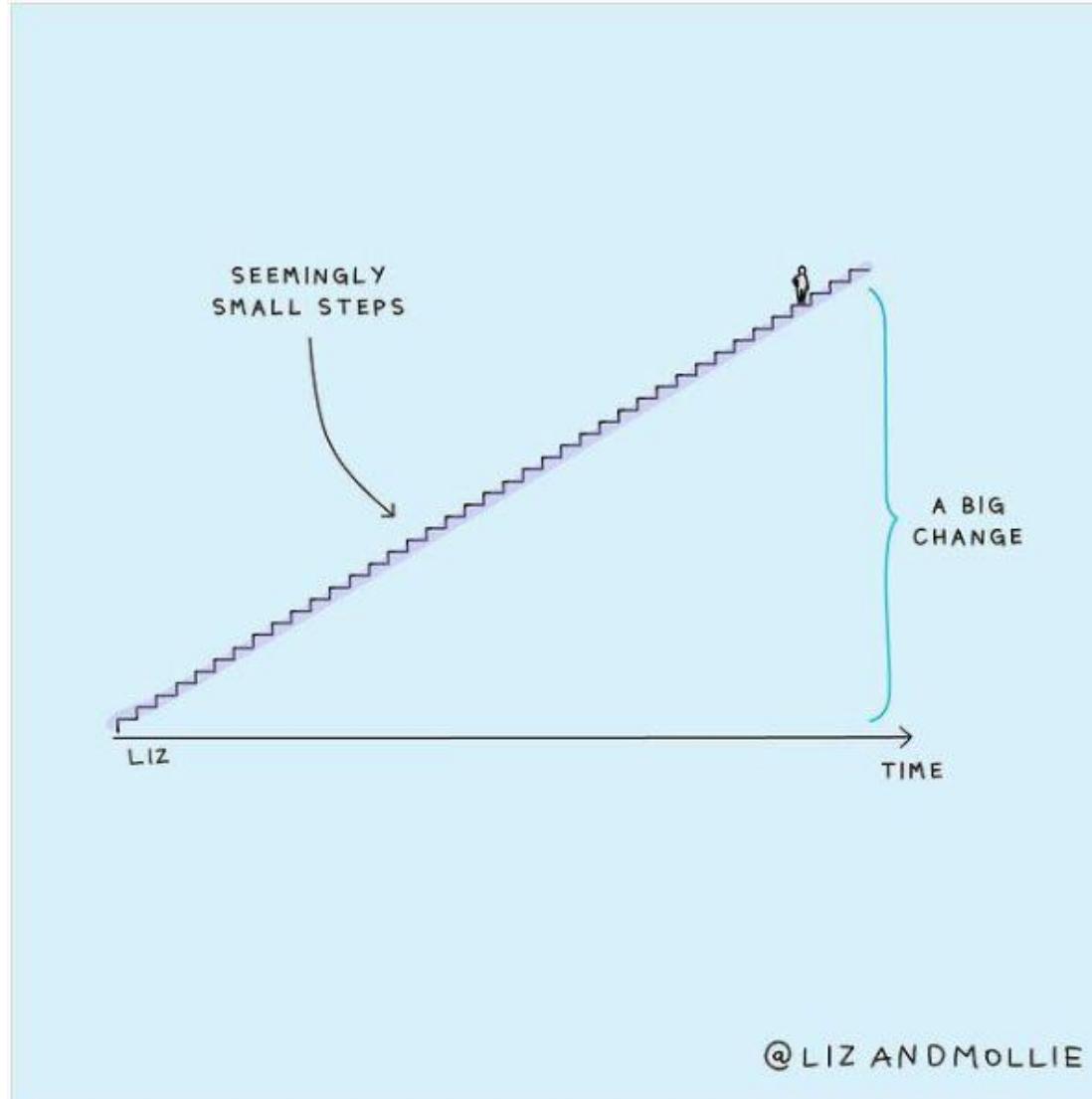


Transformational or breakthrough



Combined

Improvement efforts can seek **incremental** improvement over time or **breakthrough** improvement all at once, or **combined**.



Continuous Improvement – Modules



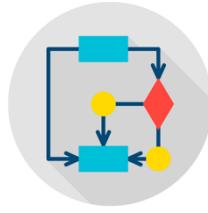
Products



Services



People

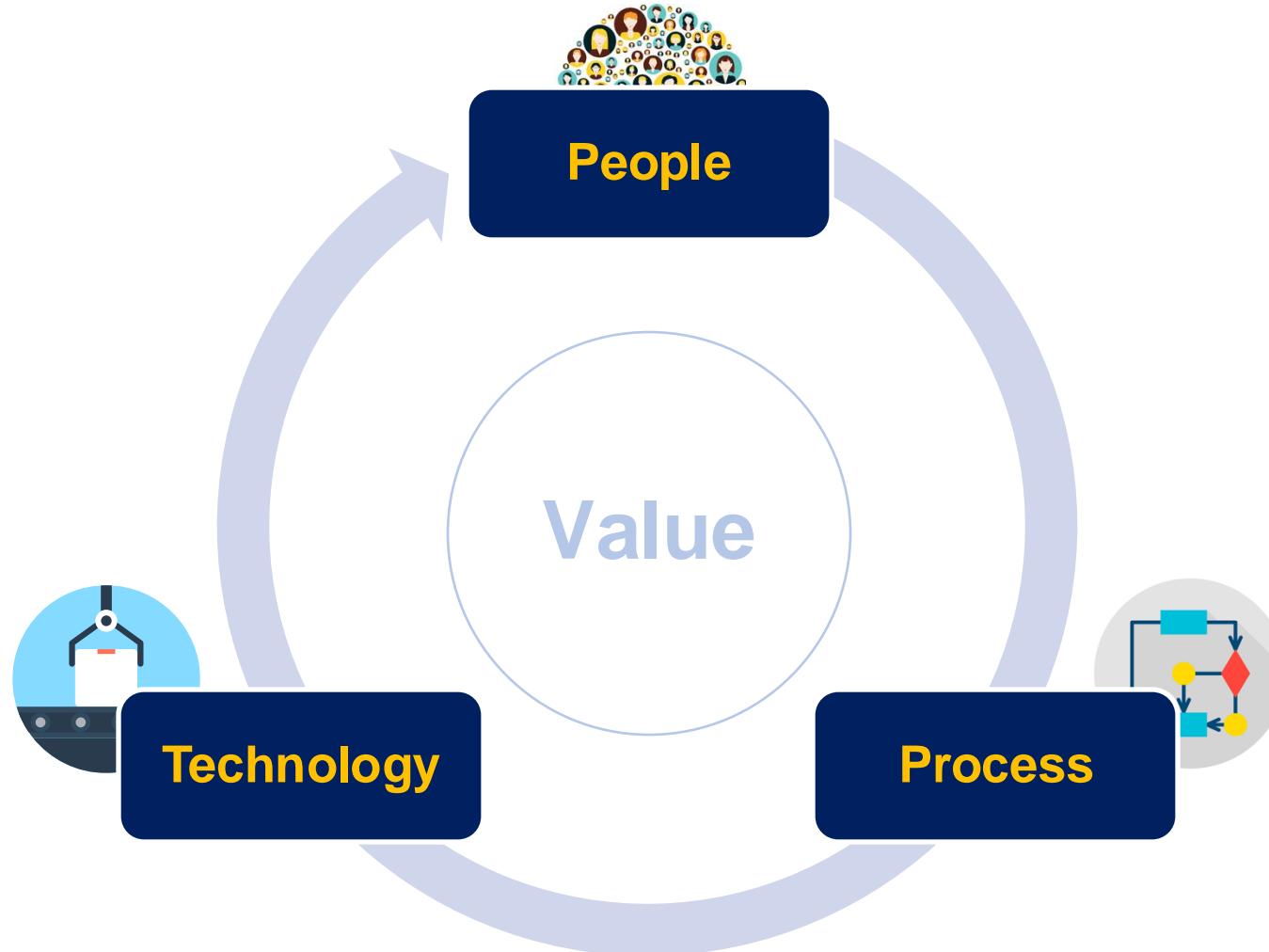


Process



Technology

Continuous Improvement – Modules

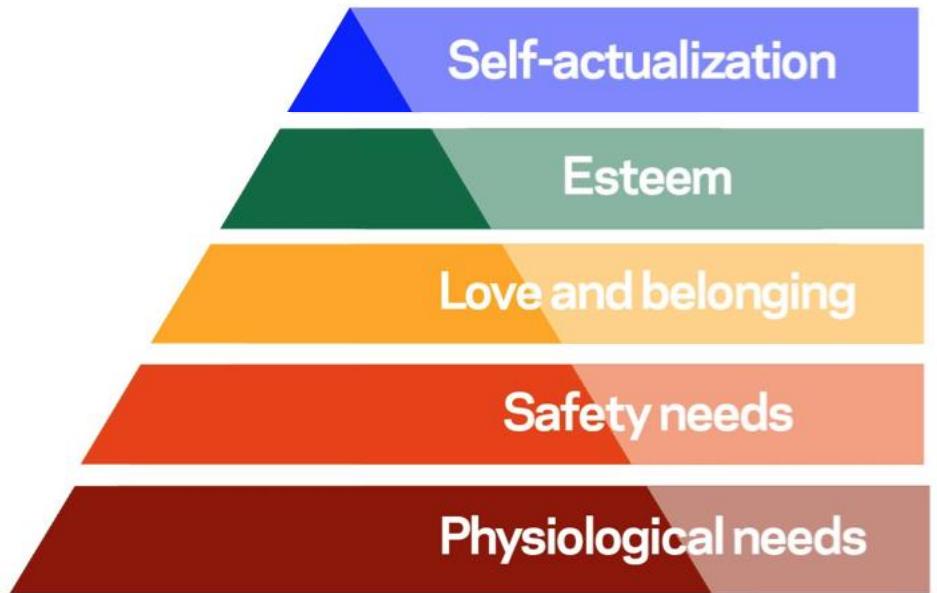
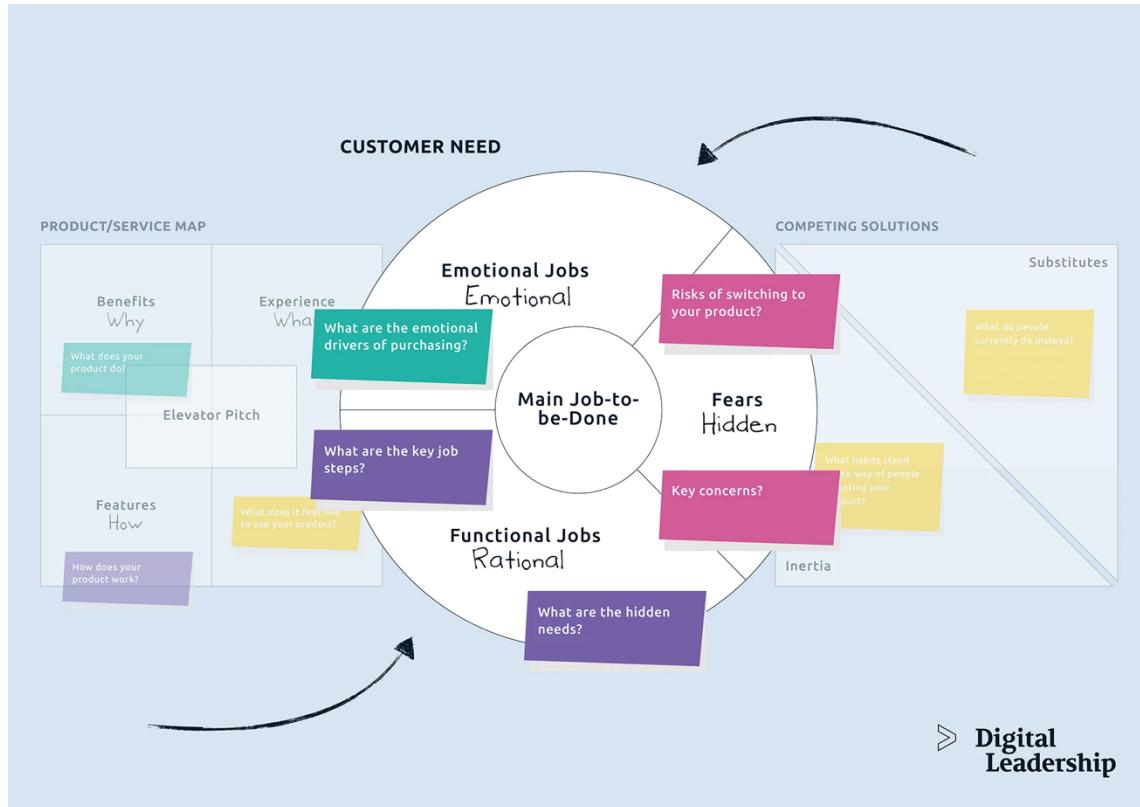


What is Value?



???

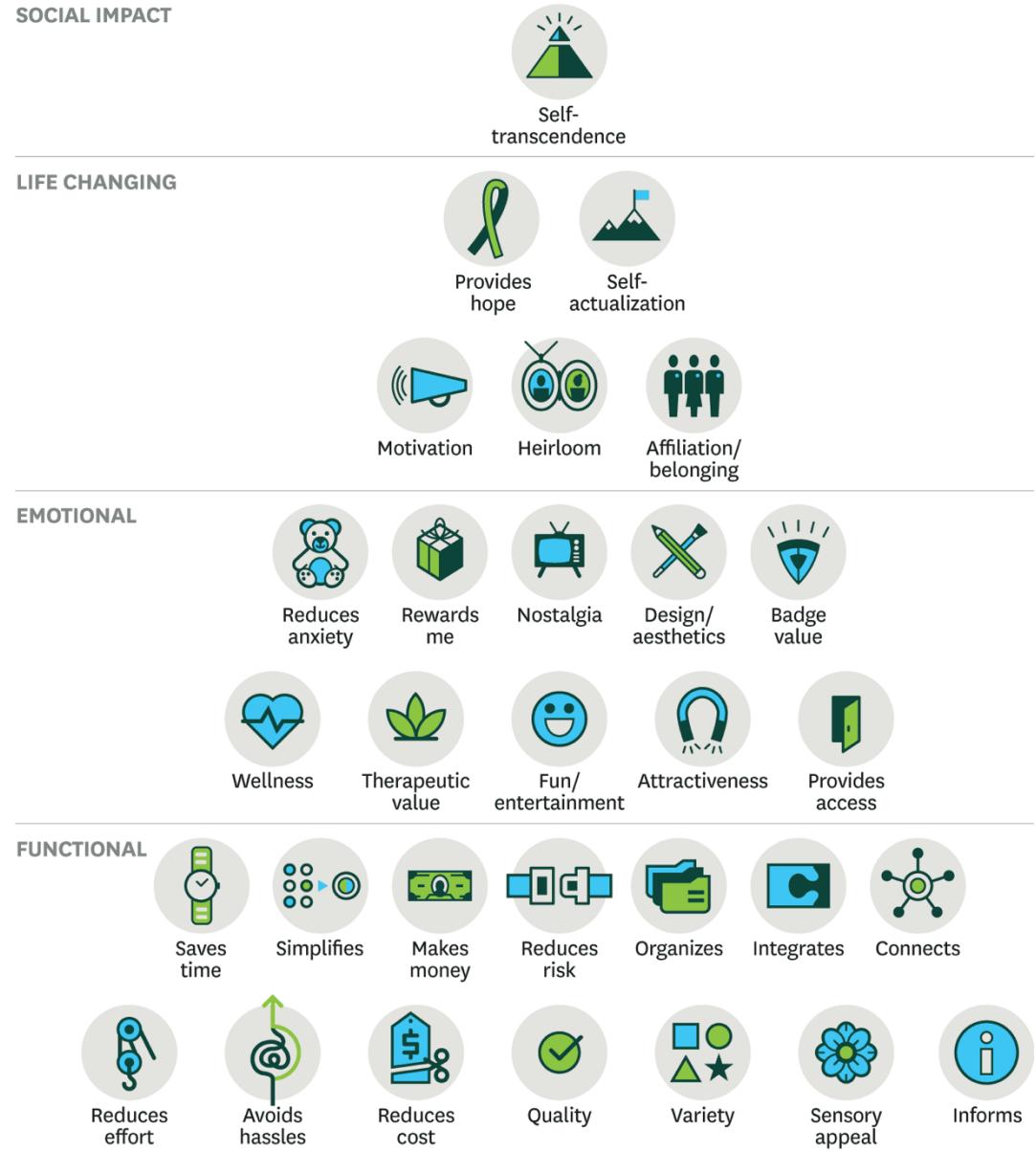
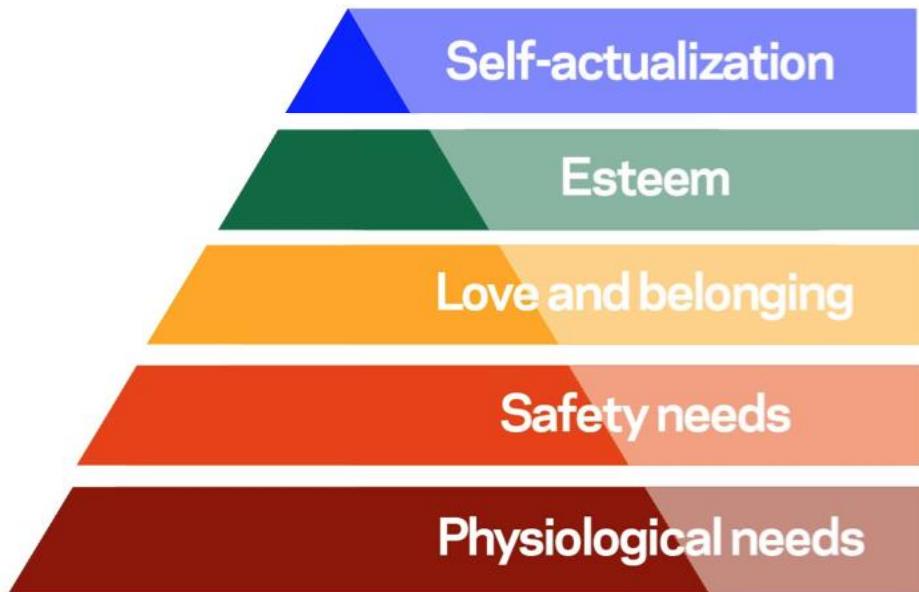
Value & Needs



A value is a conscious choice to act in a certain manner to meet your own **needs**.

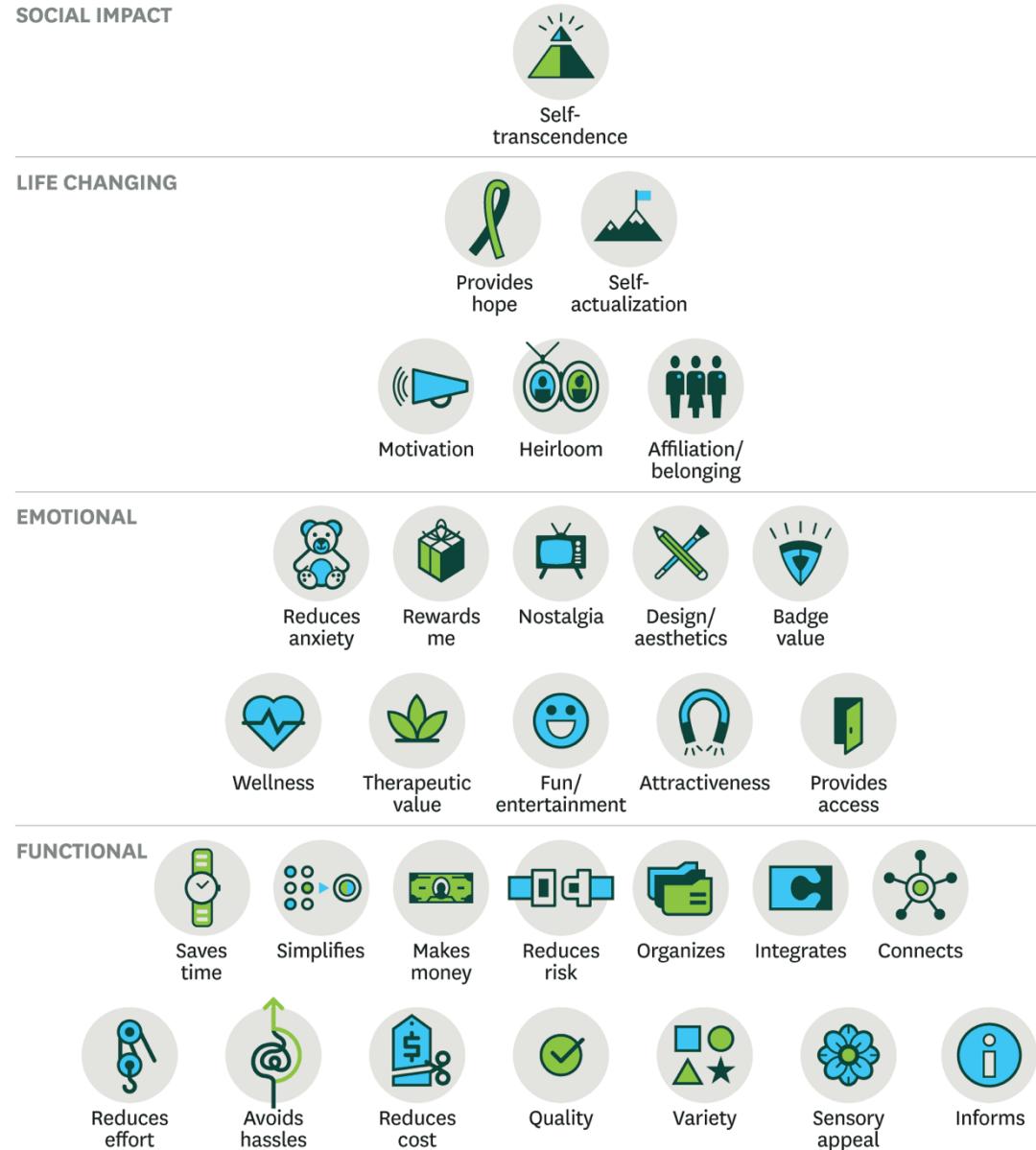
Source: A. Maslow, A Theory of Human Motivation, 1943.

The Elements of Value



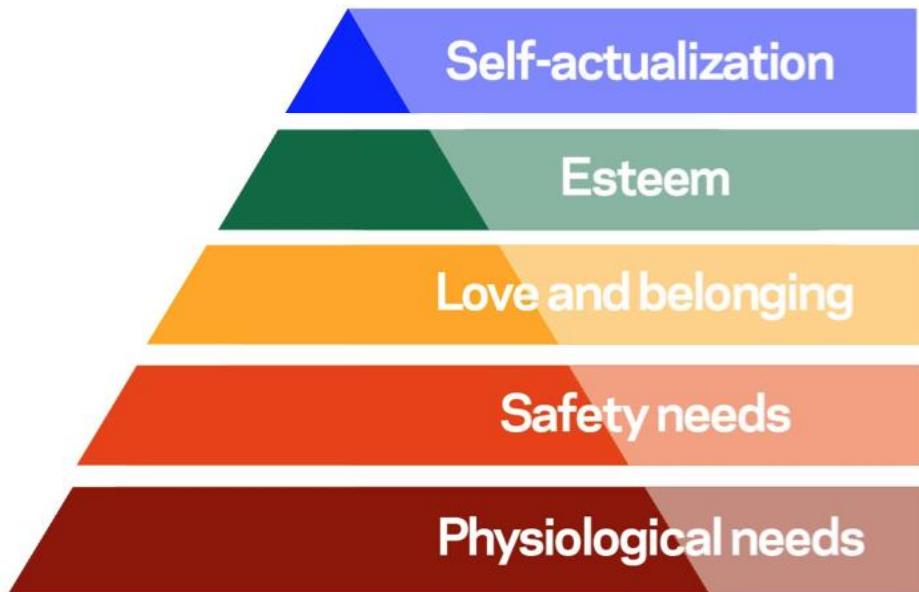
Source: 2015 Bain & Company - The Elements of Value, Harvard Business Review, 2015

What Are Elements of Values?



Source: 2015 Bain & Company - The Elements of Value, Harvard Business Review, 2015

The B2B Elements of Value



Source: 2018 Bain & Company - The B2B Elements of Value, Harvard Business Review, 2018

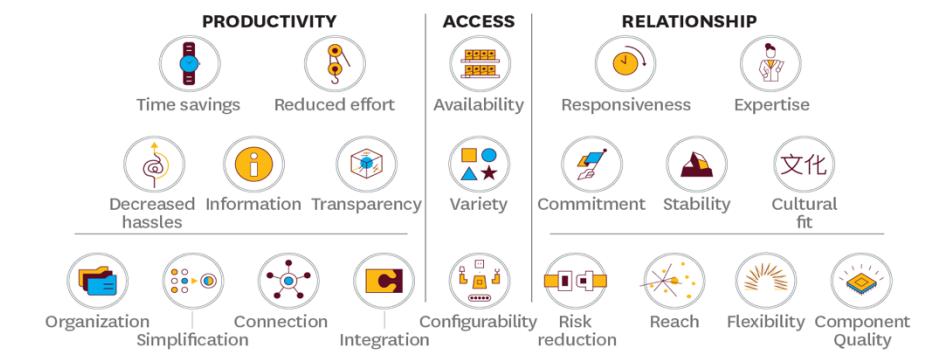
INSPIRATIONAL VALUE



INDIVIDUAL VALUE



EASE OF DOING BUSINESS VALUE



FUNCTIONAL VALUE



TABLE STAKES



What Are B2B Elements of Value?



Source: 2018 Bain & Company - The B2B Elements of Value, Harvard Business Review, 2018

INSPIRATIONAL VALUE

PURPOSE



Vision



Hope



Social responsibility

INDIVIDUAL VALUE

CAREER



Network expansion



Marketability



Reputational assurance

PERSONAL



Design & aesthetics



Growth & development



Reduced anxiety



Fun & perks

EASE OF DOING BUSINESS VALUE

PRODUCTIVITY



Time savings



Reduced effort



Decreased hassles



Information



Transparency



Organization



Simplification



Connection



Integration

ACCESS



Availability



Variety

RELATIONSHIP



Responsiveness



Expertise



Commitment



Stability



Cultural fit

OPERATIONAL



Configurability



Risk reduction



Reach



Flexibility



Component quality

STRATEGIC

FUNCTIONAL VALUE



Improved top line



Cost reduction



Product quality

PERFORMANCE



Scalability



Innovation

TABLE STAKES



Meeting specifications



Acceptable price



Regulatory compliance



Ethical standards

Continuous Improvement (CIP23)

CIP in Action – Case Study SWISS

Amin Kaboli

Week 1, Session 3, Feb 21st, 2025



Watch the video
– CIP at Swiss



10 min



Discuss and evaluate the case
Problem / Solution / Impact



10 min



Be ready to share your
answers when asked



10 min

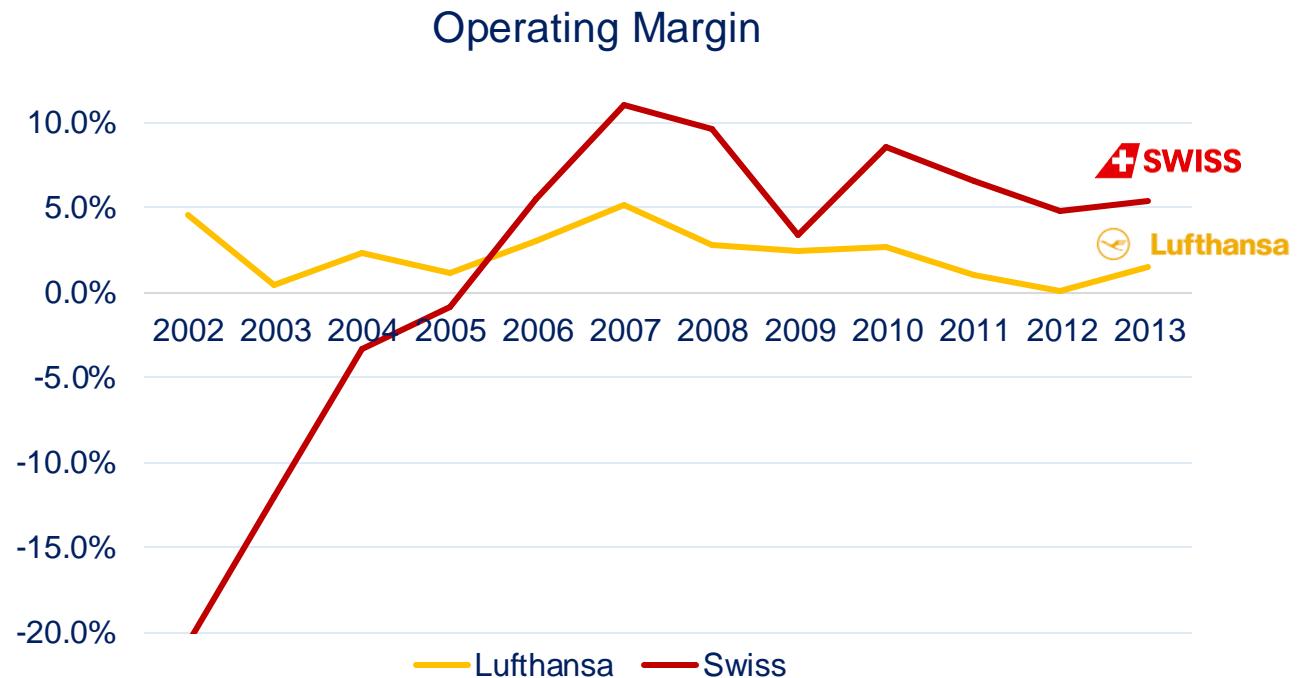
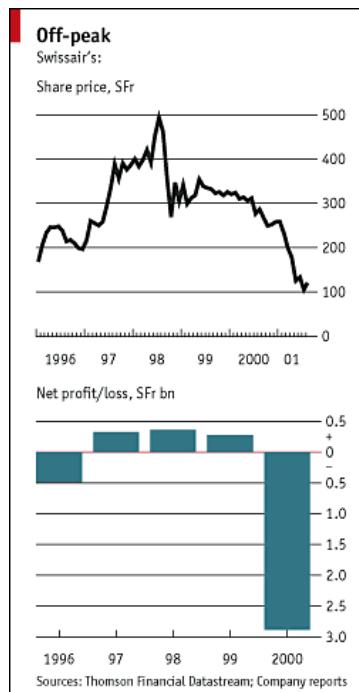
Continuous Improvement at SWISS

Consider all three aspects of people, process, and technology while answering the following questions:

People	Process	Technology
Question 1. What is/are the problem(s) ?		
Question 2. What is/are the solution(s) ?		
Question 3. What is/are the impact(s) ?		

SWISS From Bankruptcy to Profit

Swissair was bankrupt in 2001. Saved by Swiss government and sold to Lufthansa. It was a story of a financial disaster. However, in 2007-2008 Swiss Airlines became an outstanding contributor to Lufthansa profits ...



Source: Economist

Continuous Improvement at SWISS



10 min

Consider all three aspects of people, process, and technology while answering the following questions:

People

Process

Technology

Question 1. What is/are the **problem(s)**?

Question 2. What is/are the **solution(s)**?

Question 3. What is/are the **impact(s)**?

Continuous Improvement (CIP23)

CIP in Action – Coaching Session

Coaching Rooms (CM1 104, CM1 106)

Amin Kaboli

Week 1, Session 4, Feb 21st, 2025

CIP in Action



Read the case:
Nestlé Continuous
Excellence



15 min



Discuss and evaluate the case
Problem / Solution / Impact



15 min



Be ready to share your
answers when asked



10 min