Business Decision Making in New Startup

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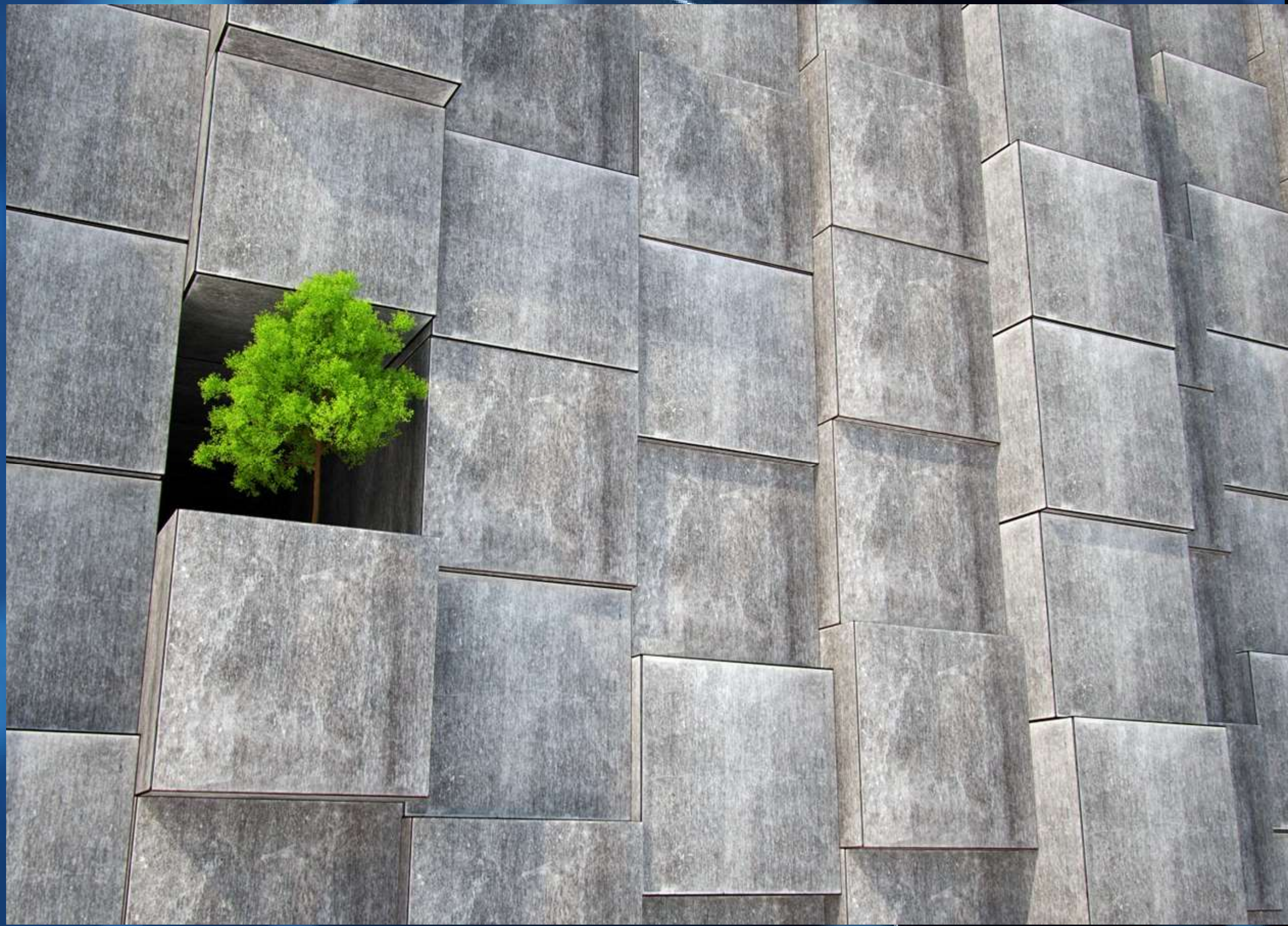
Startup Challenges

A unicorn shines!

But how many startups could even survive?



Business Plan

- Research
- Team formation

Funded

- Start operating
- Spending
- Teamwork

Risk/ Opportunity

- Proactive/ Reflective
- Optimistic/ Pessimistic
- Resilience

Success?

- Get more funding?
- Pivot?
- Positive cash flow?
- Negative? Bankrupt?

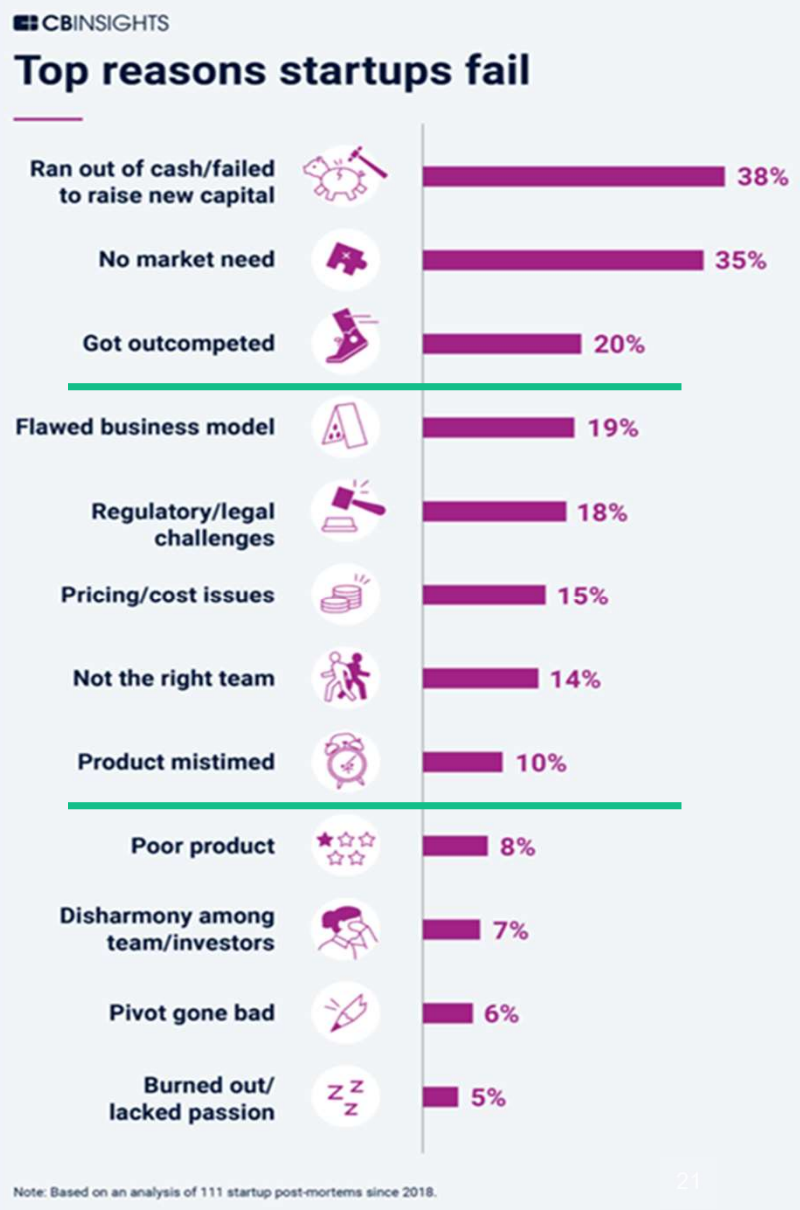
Top Reasons Startups fail

CBINSIGHTS: https://www.cbinsights.com/research-12-reasons-why-startups-fail

- Ran out of cash/failed to raise new capital
- No market need
- Got outcompeted

- Flawed business model
- Regulatory/legal challenges
- Pricing/cost issues
- Not the right team
- Product mistimed

- Poor product
- Disharmony among teams/investors
- Pivot gone bad
- Burned out/lacked passion



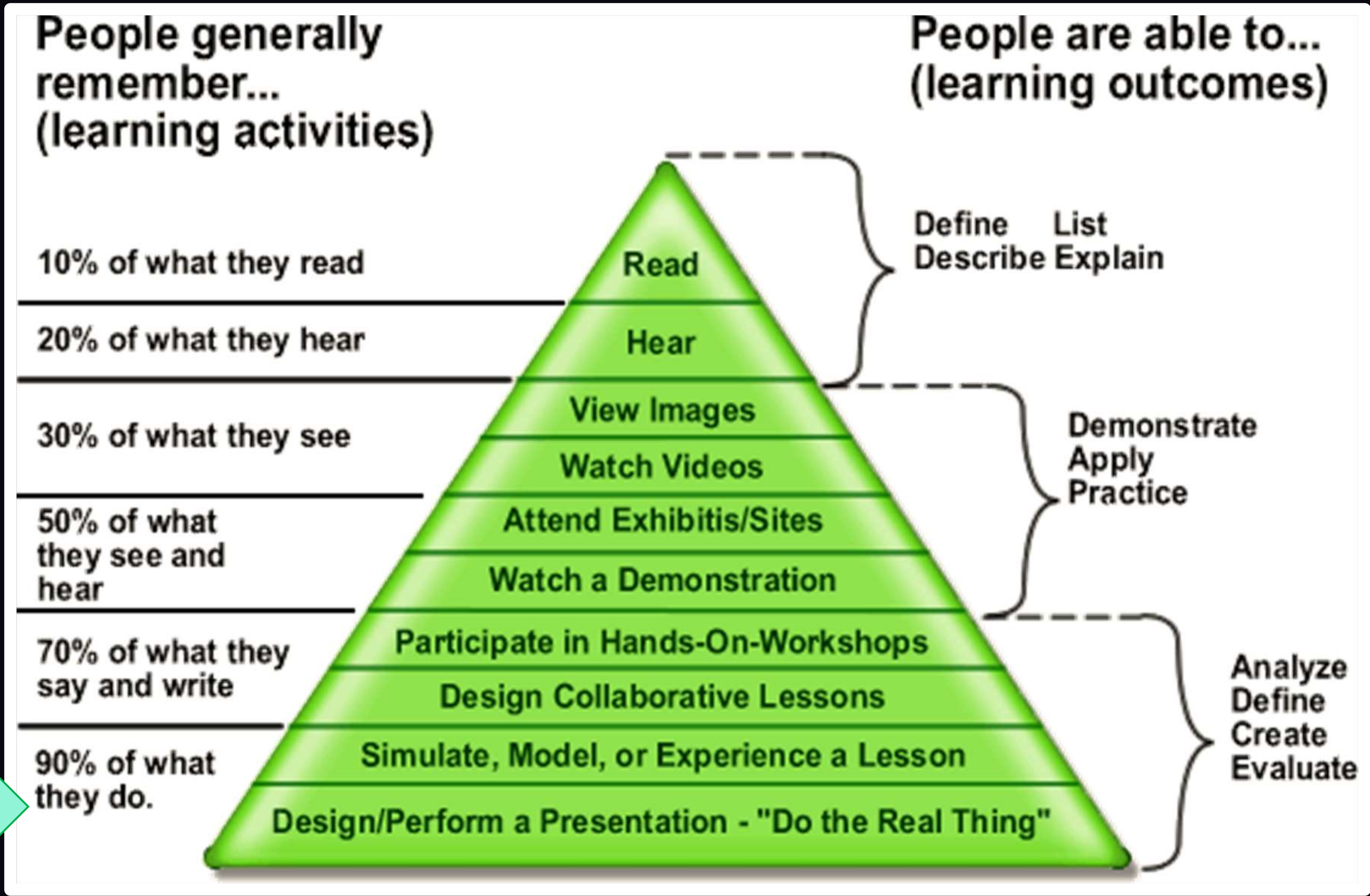
One key issue is…

Lack of **Experience** that is needed to build up **Confidence**

Why Simulation?

We want to experience failures and learn from them. But it's better to fail and learn in the simulation than in the real world!

Learning Pyramid

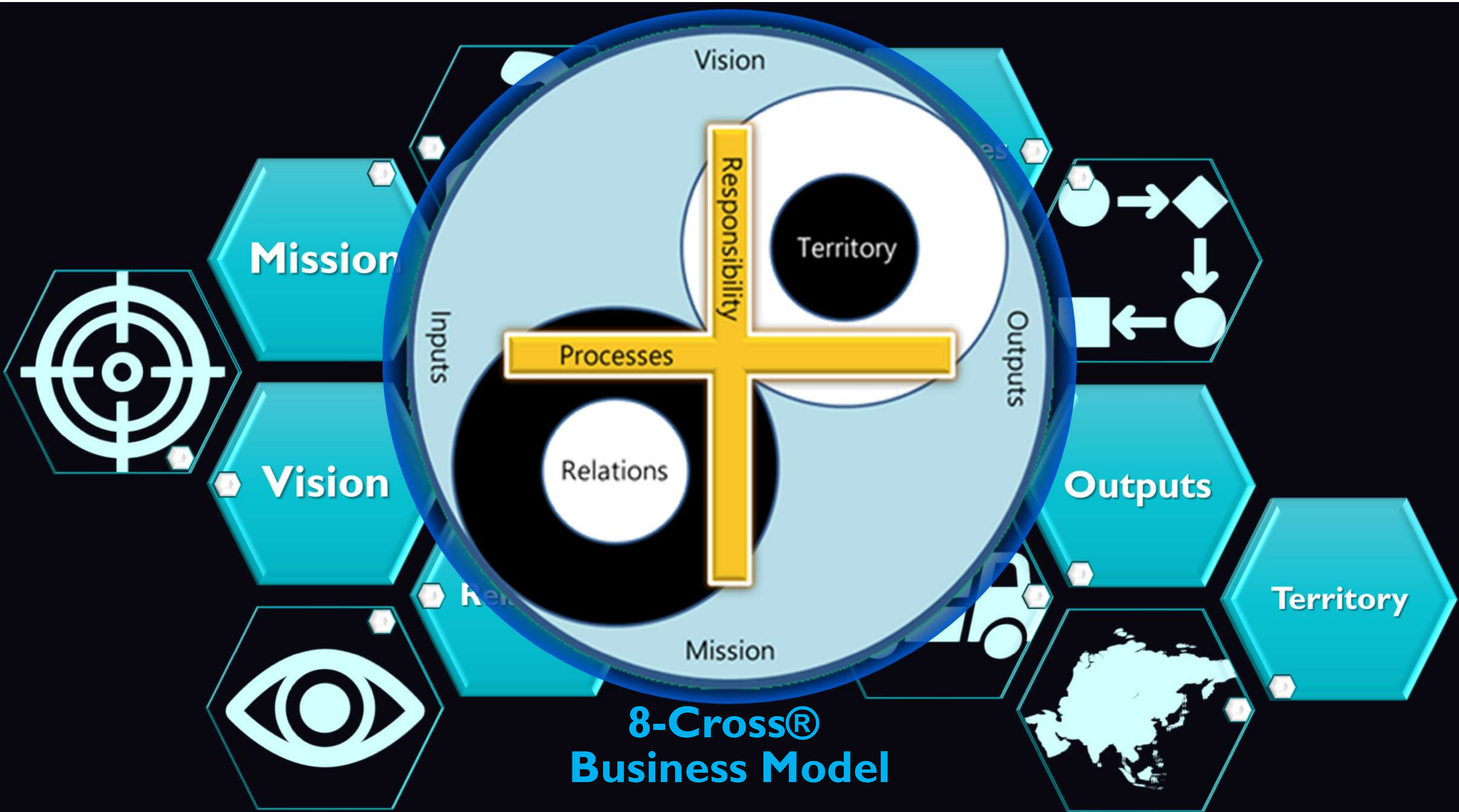


Simulation with **Presentation**

https://upload.wikimedia.org/wikipedia/commons/3/3d/Edgar_Dale%27s_cone_of_learning.png

8-Cross® Business Model

A locally developed
Business Model in Taiwan

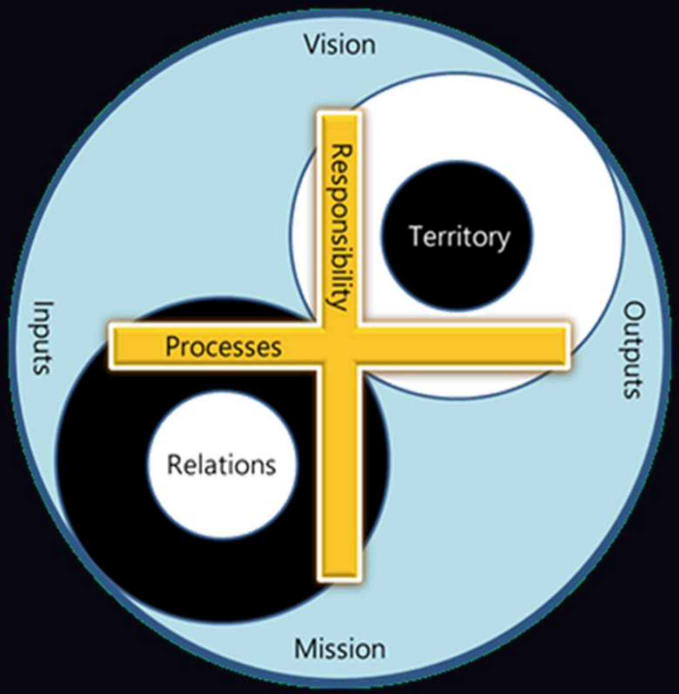


**8-Cross®
Business Model**

8-Cross® Business Model

8十事業法則®

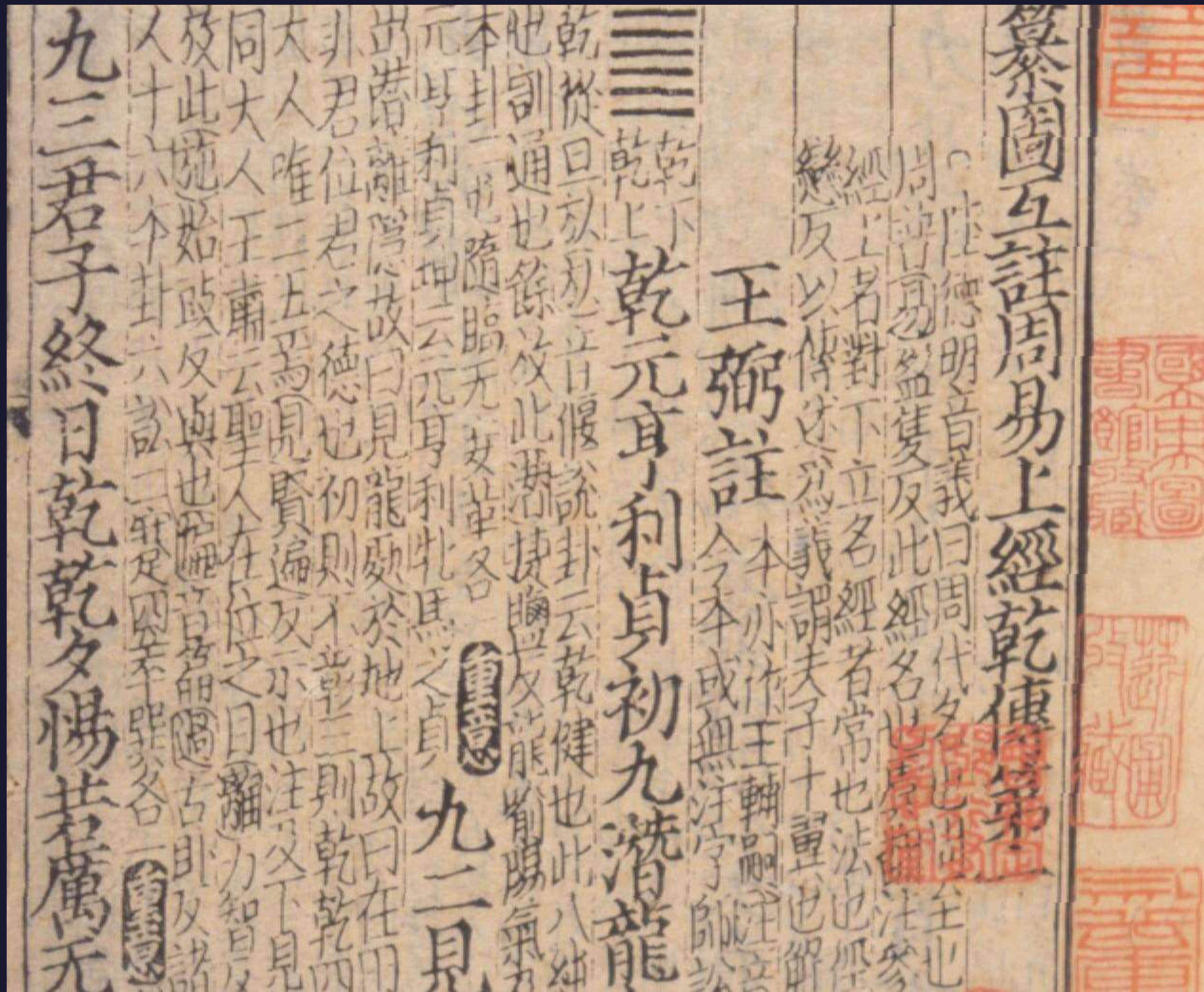
To check and balance how the organization grows both vertically and horizontally directions:



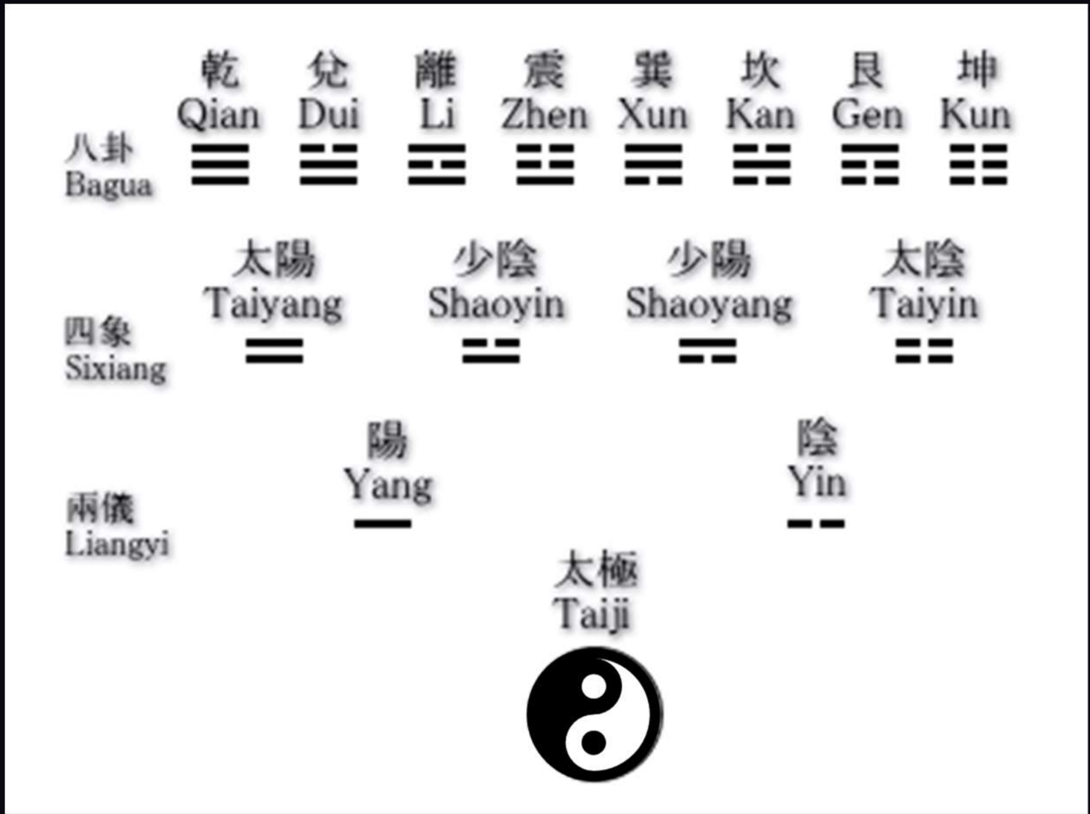
The whole Decision Making is a continuous and dynamic process. It goes on and on, such that when new problems arise from solved problems, new adjustments will be needed.

Book of Changes “I-Ching”

易 經



https://commons.wikimedia.org/wiki/File:I_Ching_Song_Dynasty_print.jpg



易經 Book of Changes "I-Ching"

Prehistory

- Through the history, human decisions are guided by interpretations of entrails, smoke, dreams, and the like;
- Hundreds of Chinese rely on poetic wisdom and divination instructions compiled in the I Ching.
- The Greeks consult the Oracle of Delphi.
- Prophets and seers of all kinds peer into the future.

- *A brief history of decision making (HBR)*

TAIJI

YIN YAN

Opportunity <> Risk

Risk <> Opportunity

THE WORLD KEEPS CHANGING NATURALLY

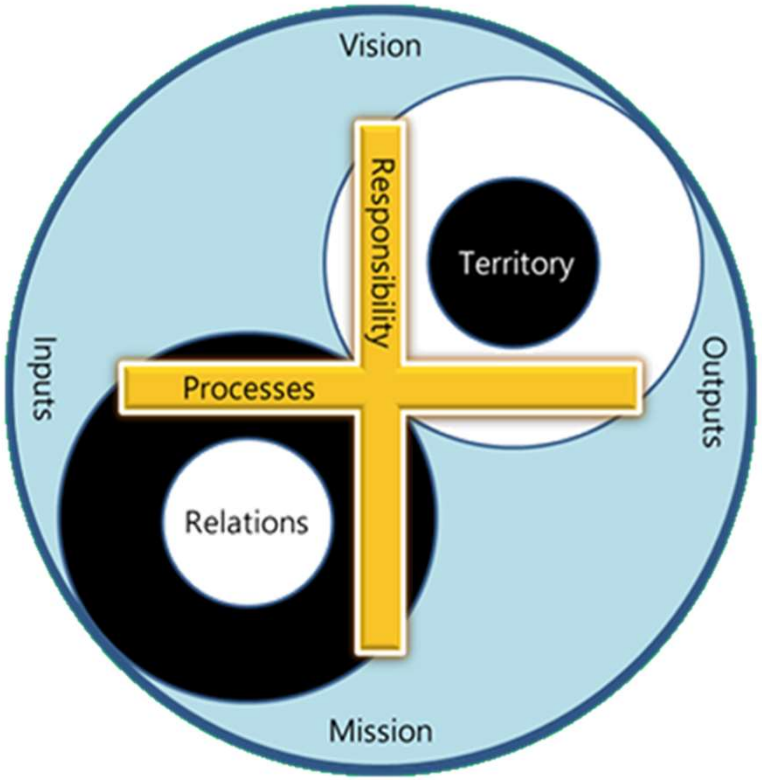
- Fluctuating from Yin to Yan. And then from Yan to Yin.
  (The sun falls, then night or moon comes up. Then the daylight coming up…)

- Within such dynamic cycle, when it looks to be totally Yan (YAN), there is always a minor part of Yin (yin). And it's the same in the opposite case.

8 Decisions (Crossroads)

Vision
Responsibility
Mission
Relations

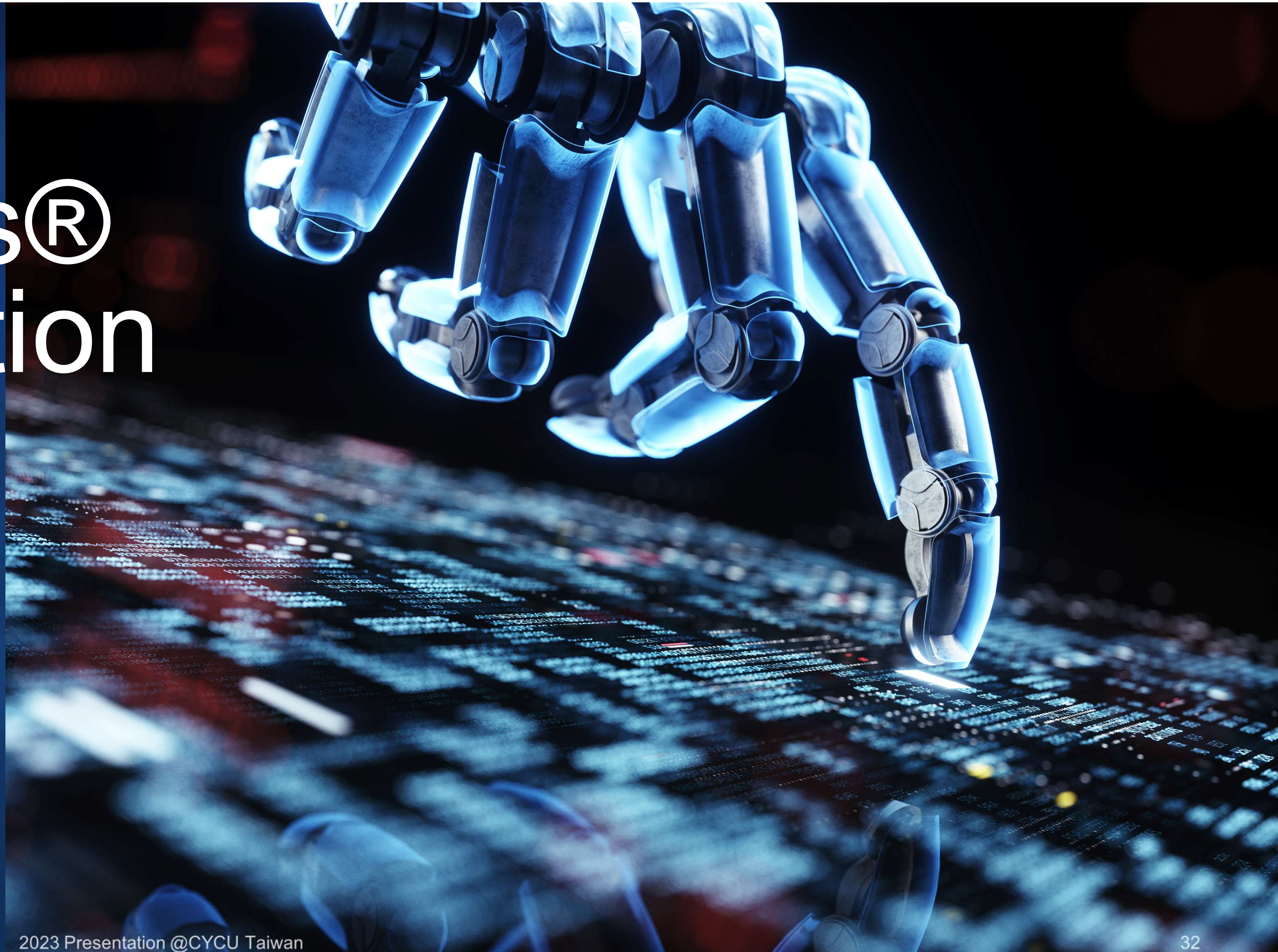
Inputs
Processes
Outputs
Territory



The Changing dynamics –
especially in Territory & Relations

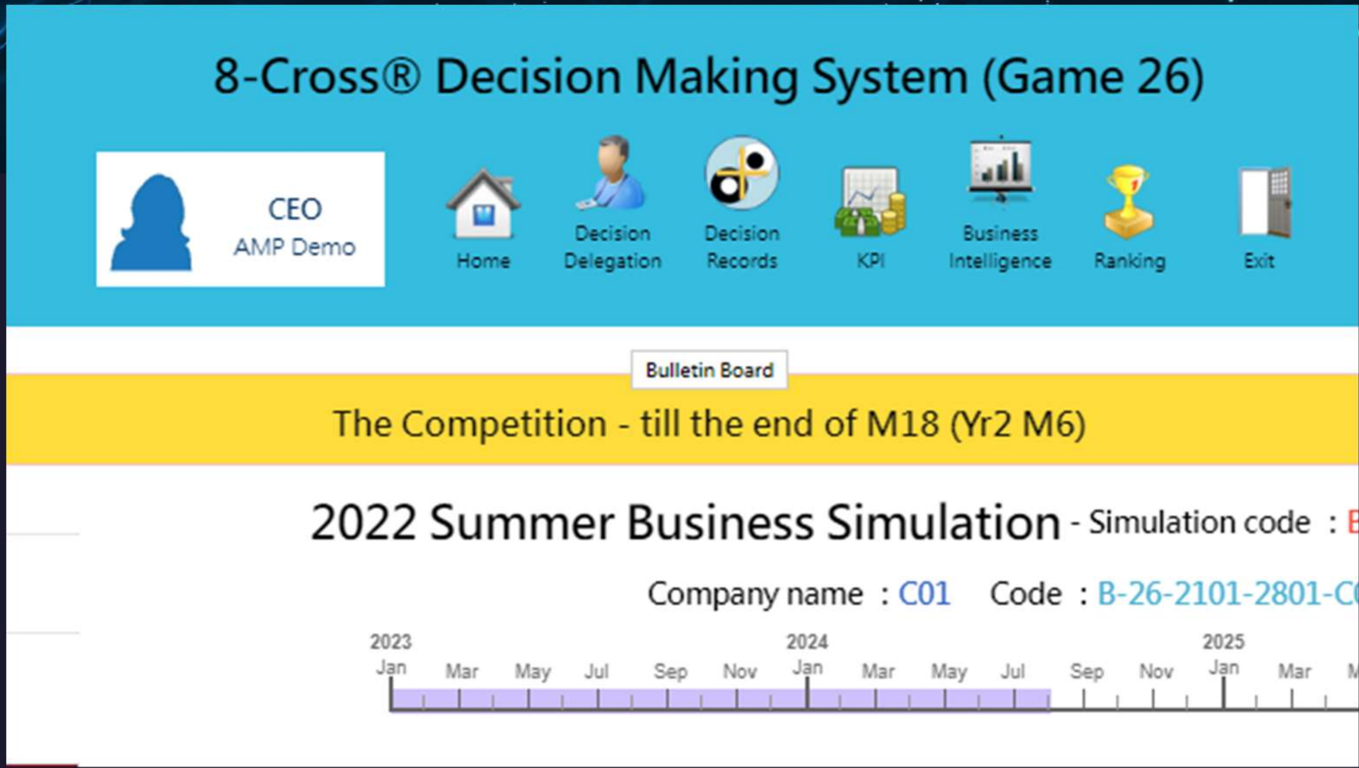
8-Cross® Simulation System

How is it structured?

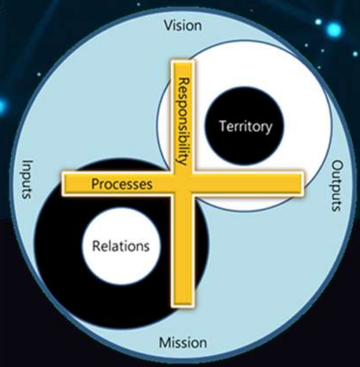


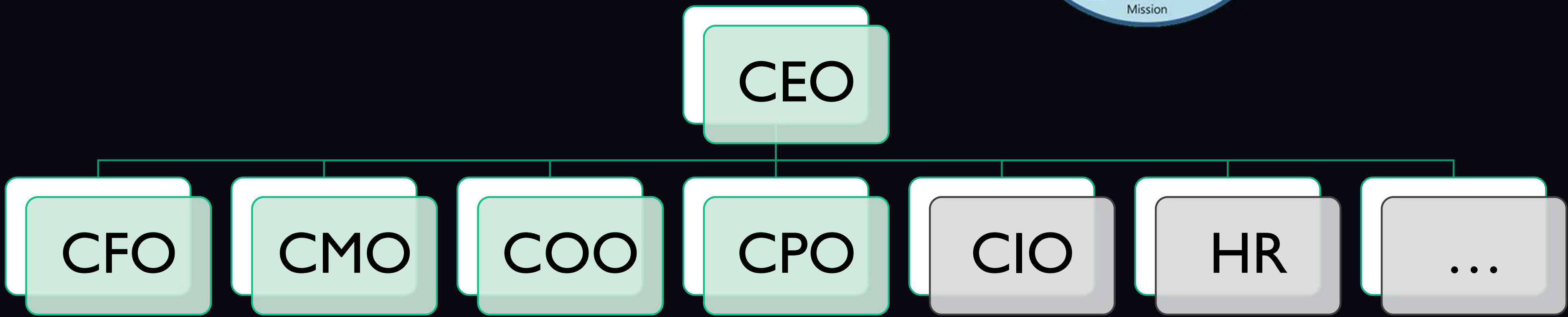
Business Simulation System

8-Cross® Business Decision Making Simulation System

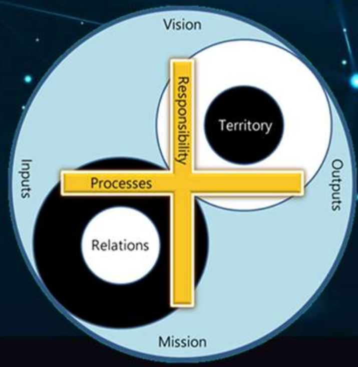


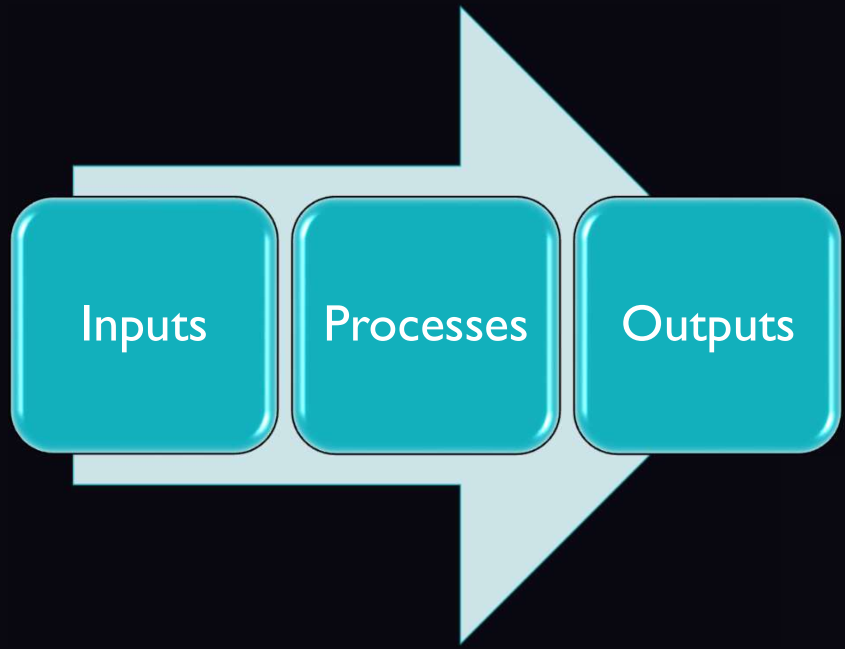
Organization





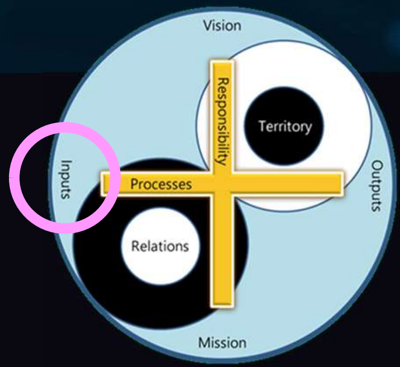
The vertical responsibility setup & The horizontal value creation





Inputs

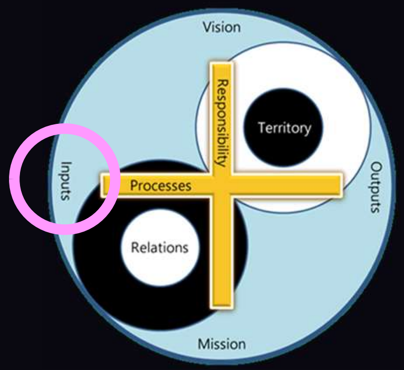
Financial Approval
External Reports
Working Capital
RM Sourcing
Inputs
Recruiting
Information System
Training
Fixed Asset



Vision
Responsibility
Territory
Inputs
Processes
Outputs
Relations
Mission

Inputs – drill down

- Financial Approval
  - CAPEX
  - Financing
- Working Capital
  - Short term loan
  - Short term investment
- Hiring
  - Recruiting
  - Termination
- Training
  - By department
- Fixed Asset
  - Plant
  - Production Line
  - Warehouse
- Information System
  - Levels
- RM Sourcing
  - Low quality RM
  - High quality RM
- External Reports
  - Employee capability
  - Market share
  - Product positioning
  - Product cost & value



Processes

Outputs

Production deployment

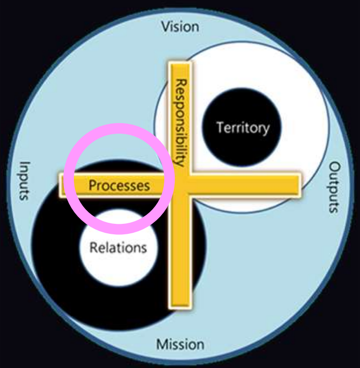
Operators

Production Volume

RM Feed

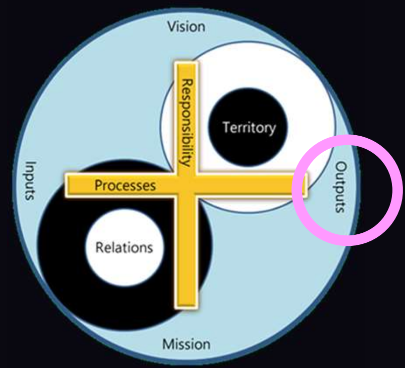
Production Process

Improvements

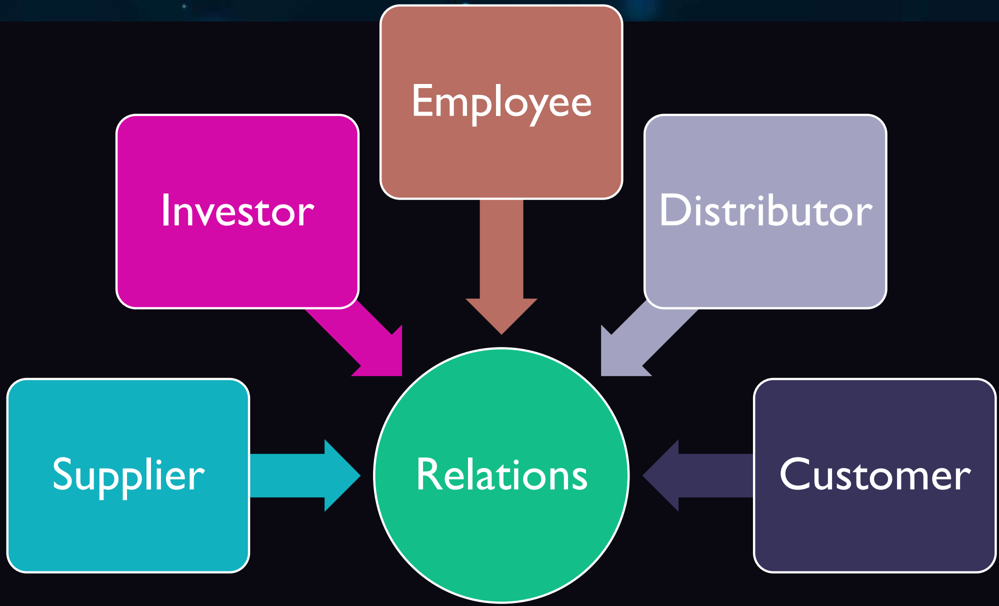


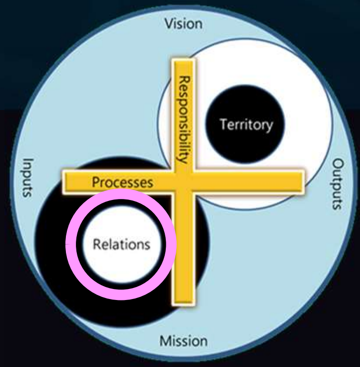
Product Quality

Continuing Improvement

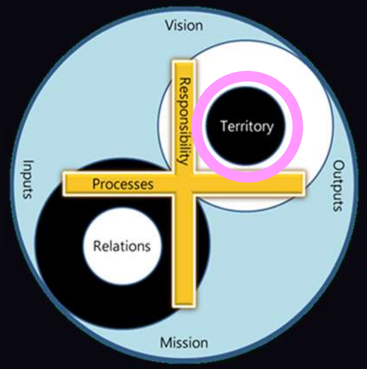


Relations


Employee
Investor
Distributor
Supplier
Relations
Customer


Vision
Responsibility
Territory
Inputs
Processes
Outputs
Relations
Mission

Territory

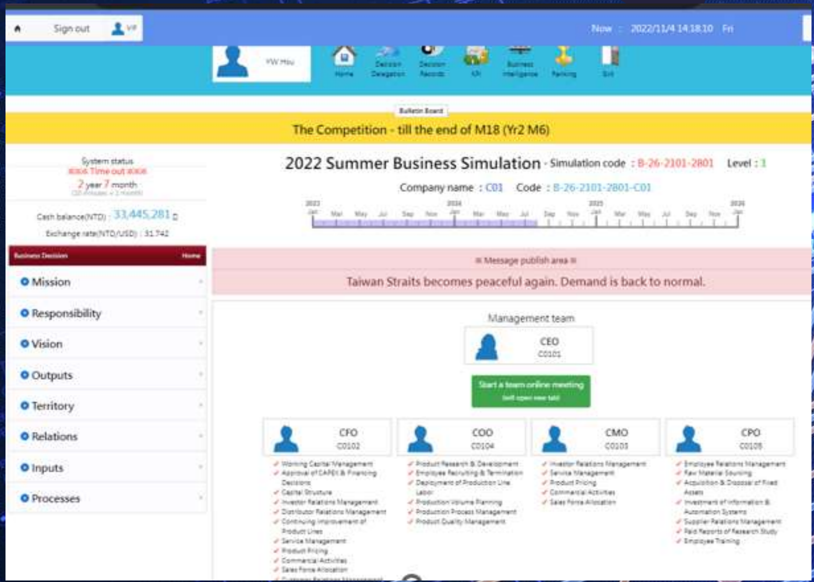


Territory

- **Pricing**
  - Emerging Mkt
  - Developed Mkt
- **Sales Force**
  - Emerging Mkt
  - Developed Mkt
- **Commercial Activities**
  - Emerging Mkt
  - Developed Mkt
- **Service Mgmt**
  - Emerging Mkt
  - Developed Mkt

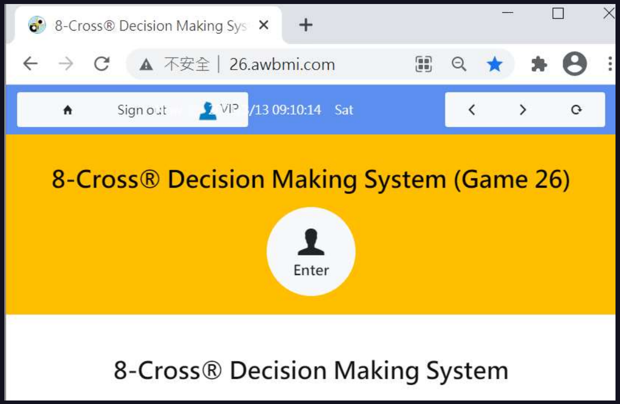
Let’s do it!

Let’s work on the business decision simulation for a few “months” in different simulated companies!

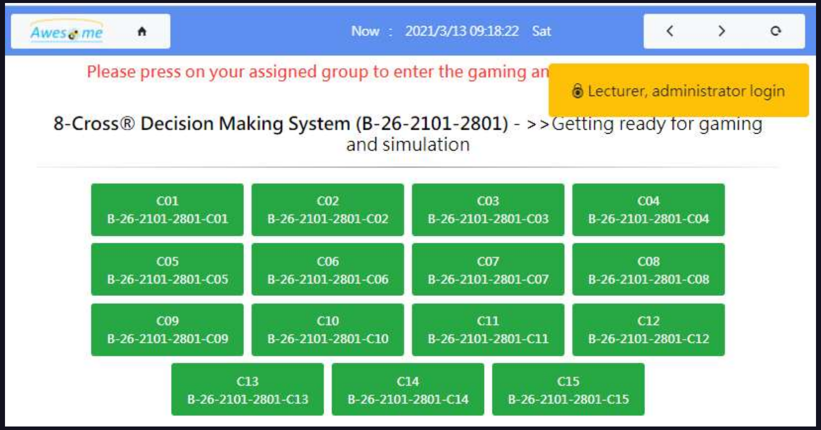


8-Cross®
Business Decision Making

- Website: http://28.awbmi.com/



- Press "Enter"

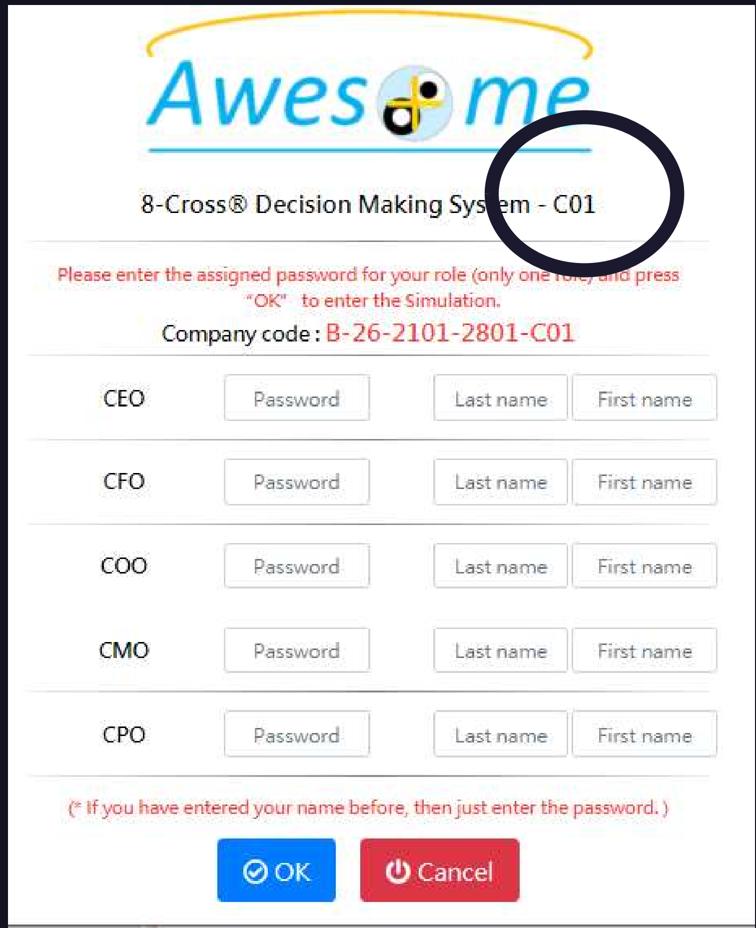


- Select your company

Log in to your role

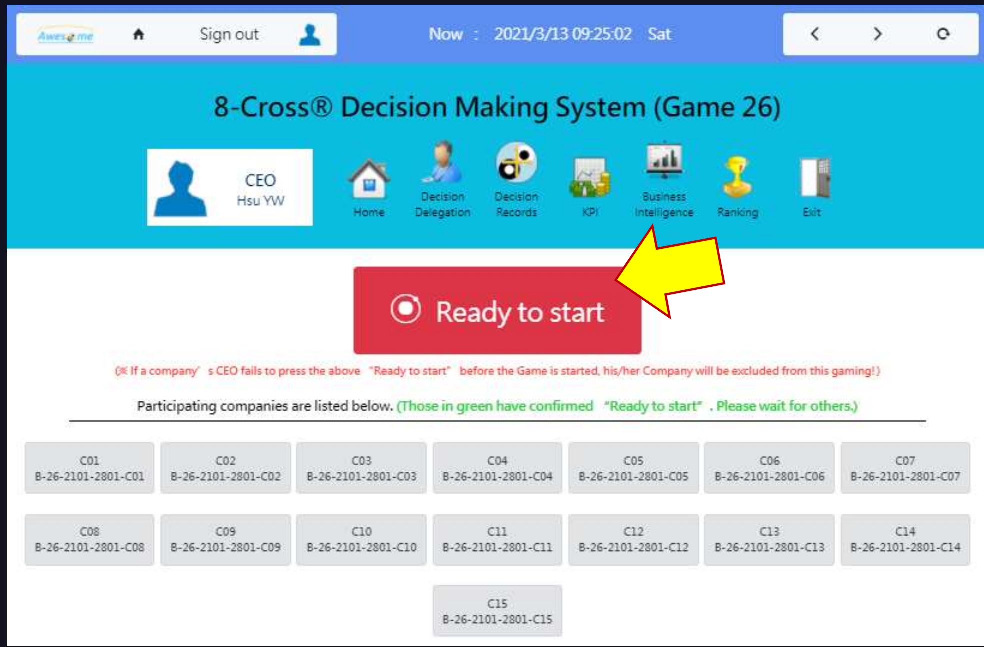
- Make sure it's your company

- Key in the password relative to your role.



“Ready to start” - CEO’s role

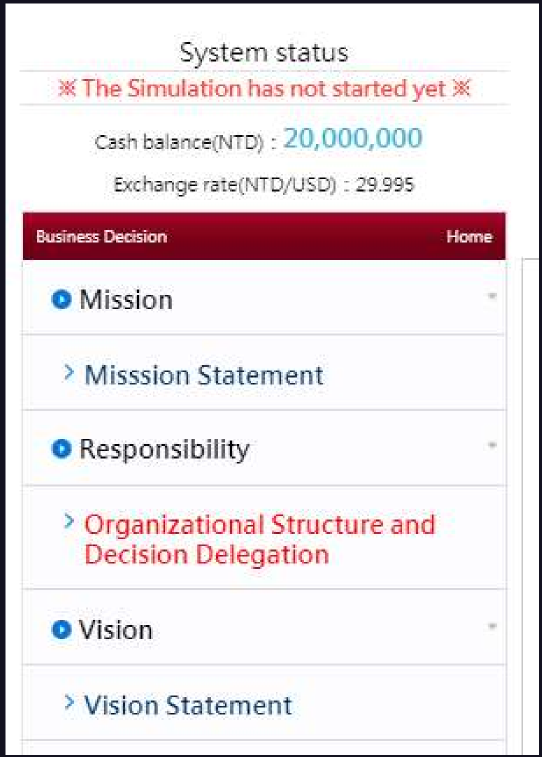
- After making sure that all the members have logged in successfully to the company, the CEO needs to press “Ready to start”



- Then wait for the other companies.

Vision & Mission

- Spend some time to discuss your Vision and Mission of your team.
- You can enter these two statements respectively.
- For Responsibility, don't change any decision rights at this moment. (Retain as Default setup)




Y1M1

Y1M1 (Year 1 Month 1)
Suggested decisions

- Initiate Prod-A R&D with 1 month expediting (COO)
  - Expected to be ready in M3.
- Build 1 Plant (CPO)
- Build 1 Warehouse (CPO)
- Approve CAPEX of the above 3 items (CFO)

- Initiate Prod-A R&D with 1 month expediting (COO)
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- Build 1 Plant (CPO)
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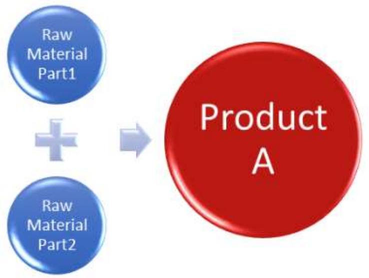
- Approve CAPEX of the above 3 items (CFO)

Initiate Prod-A R&D + expediting (COO)
Outputs>Product Research & Development

- Prod A
  - 2 RM to make 1 Prod A
  - Basic R&D cost:
    - $1,000,000
  - Duration:
    - 3 months
    - Example: initiated M1, ready at M4
  - Expedite cost:
    - Another $500,000
    - Expedite 1 month => Ready at M3
    - To be initiated along with basic R&D investment

Product	R&D expenses	Development time (month)	Technical requirement	Start R&D time	Status
Product-A	1,000,000	3 Months	Low		

Product-A



R&D expenses of new product	1,000,000
R&D duration	3 Months
R&D technical requirement	Low

☐ Product-A Expedite 1 month, Expenses : 500,000 ▯

Start R&D

Action (by COO):
- Initiate Prod A R&D
- Initiate Expedite Expenses

- Initiate Prod-A R&D with 1 month expediting (COO)
  - Expected to be ready in M3.
- Build 1 Plant (CPO)
- Build 1 Warehouse (CPO)
- Approve CAPEX of the above 3 items (CFO)

"Decisions pending list"

Action (by COO):
- Initiate Prod A R&D
- Initiate Expedite Expenses

Decisions pending list

Pending	Initiate Prodcut-A R&D at $1,000,000,with duration of 3 months	2021-03-14 09:24	YW Hsu	×
Pending	Expedite Product-A R&D 1 month at $500,000	2021-03-14 09:24	YW Hsu	×

- In the Decisions pending list, the initiated action should be listed.
- They are in the "pending list": Awaiting CAPEX approval
  - Awaiting CAPEX approval (by CFO)
  - Can be canceled if found submitted wrongly by clicking the respective "x" at the right.

Build 1 Plant (CPO)
Build 1 Warehouse (CPO)
Inputs>Acquisition & Disposal of Fixed Assets

- Initiate Prod-A R&D with 1 month expediting (COO)
  - Expected to be ready in M3.
- Build 1 Plant (CPO)
- Build 1 Warehouse (CPO)
- Approve CAPEX of the above 3 items (CFO)

Acquisition & Disposal of Fixed Assets

Acquisition | Disposal

Asset type	Number	Add/Expansion
Plants	0 units	Unit cost : 1,000,000 Monthly maintainance expenses : 20,000 /units 1 units
Product-A Production lines	0 lines	Unit cost : 400,000 Monthly maintainance expenses : 40,000 /lines lines
Warehouses	0 units	cost : 1,000,000 /units Monthly maintainance expenses : 20,000 /units 1 units

Submit | Cancel

Decisions pending list

Pending	Add Number of Plants : 1 units, Cost: 1,000,000	2021-03-14 09:35	YW Hsu	×
Pending	Add Number of Warehouses : 1 units, Cost: 1,000,000	2021-03-14 09:35	YW Hsu	×

Awaiting CAPEX approval

Action (by CPO):
- Key in “1” for Plants
- Key in “1” for Warehouses

Approve planned Capital Expenditure (CFO)
Inputs>Approval of CAPEX & Financing Decisions

- Initiate Prod-A R&D with 1 month expediting (COO)
  - Expected to be ready in M3.
- Build 1 Plant (CPO)
- Build 1 Warehouse (CPO)
- Approve CAPEX of the above 3 items (CFO)

Awaiting CAPEX approval

Approval of CAPEX & Financing Decisions

Decisions Pending list

✓	×	Initiate Prodcut-A R&D at $1,000,000,with duration of 3 months	2021-03-14 09:24	YW Hsu
✓	×	Expedite Product-A R&D 1 month at $500,000	2021-03-14 09:24	YW Hsu
✓	×	Add Number of Plants : 1 units, Cost: 1,000,000	2021-03-14 09:35	YW Hsu
✓	×	Add Number of Warehouses : 1 units, Cost: 1,000,000	2021-03-14 09:35	YW Hsu

Action (by CFO):
- Click on the ✓ to approve listed CAPEX (should have 4 items here)

- CAPEX and Financing decisions (loans, shares,..) need further approval here otherwise the Decisions listed **will NOT be executed**!

(In other words, CFO needs to check on this at least before going into next month)

Y1M1 (Year 1 Month 1)
Suggested Decisions Completed

- Initiate Prod-A R&D with 1 month expediting (COO)
  - Expected to be ready in M3.
- Build 1 Plant (CPO)
- Build 1 Warehouse (CPO)
- Approve CAPEX of the above 3 items (CFO)

- A few other things to highlight before going into M2…


Y1M2

Take a look on decisions made Decision Records

Decision item	Name	Summary	Decision maker
Vision	Product Research & Development	Initiate Prodcut-A R&D at $1,000,000,with duration of 3 months	P380723857
Vision	Product Research & Development	Expedite Product-A R&D 1 month at $500,000	P380723857
Inputs	Acquisition & Disposal of Fixed Assets	Add Plants 1 units，Expenditure increase：1,000,000	P380723857
Inputs	Acquisition & Disposal of Fixed Assets	Add Warehouses 1 units，Expenditure increase：1,000,000	P380723857

- You may look at other information under BI (Business Intelligence), such as Financial reports

Y1M2 Decisions suggested

- Build 3 Prod A Production Lines (CPO)
- Approve CAPEX of the above (CFO)
- Recruit people (COO)
- Raw Materials Sourcing (CPO)

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- Approve CAPEX of the above (CFO)
- Recruit people (COO)
- Raw Materials Sourcing (CPO)

Build 3 Prod A Production Line (CPO)
Inputs>Acquisition & Disposal of Fixed Assets

Acquisition & Disposal of Fixed Assets

Acquisition | Disposal

Asset type	Number	Add/Expansion
Plants	1 units	Unit cost : 1,000,000 Monthly maintainance expenses : 20,000 /units units
Product-A Production lines	0 lines	Unit cost : 400,000 Monthly maintainance expenses : 40,000 /lines 3 lines
Warehouses	1 units	cost : 1,000,000 /units Monthly maintainance expenses : 20,000 /units units

Maximum 10 Lines can be installed in a Plant. But here please use 3 for subsequent illustration!

Action (by CPO):
- Build 3 Prod A Production Lines

- Build 3 Prod A Production Lines (CPO)
- Approve CAPEX of the above (CFO)
- Recruit people (COO)
- Raw Materials Sourcing (CPO)

Approve planned Capital Expenditure (CFO)
Inputs>Approval of CAPEX & Financing Decisions

Awaiting CAPEX approval

Approval of CAPEX & Financing Decisions

Decisions Pending list

✓	✕	Expansion Number of Product-A Lines : 1 lines, Cost: 400,000	2021-03-14 10:38	YW Hsu

Action (by CFO):
- Click on the ✓ to approve listed CAPEX (should have 1 item here)

- CAPEX and Financing decisions (loans, shares,..) need further approval here otherwise the Decisions listed **will NOT be executed!**)

Recruit employees (COO)
Inputs>Employee Recruiting & Termination

- Build 3 Prod A Production Lines (CPO)
- Approve CAPEX of the above (CFO)
- Recruit people (COO)
- Raw Materials Sourcing (CPO)

《 Recruiting 》

Department / Salary level	Level 1	Level 2
Production department	Salary : [illegible] Current : 0 32	Salary : 31,250 Current : 0
Marketing department	Salary : 25,000 Current : 0 6	Salary : 31,250 Current : 0
Finance department	Salary : 28,000 Current : 0 3	Salary : 35,000 Current : 0
Management Department	Salary : 25,000 Current : 0 5	Salary : 31,250 Current : 0
Technical department	Salary : 30,000 Current : 0 5	Salary : 37,500 Current : 0

Total salary : 0

Total : ~~1,472,000~~ 元

Submit Cancel

Action (by COO):
- Decide to recruit new employees

- However, new employees onboard may not be 100% as planned!!
- Production people affect production volume
- The others affect sales capability.

Buy Raw Materials (CPO)
Inputs>Raw Materials Sourcing

- Build 3 Prod A Production Lines (CPO)
- Approve CAPEX of the above (CFO)
- Recruit people (COO)
- Raw Materials Sourcing (CPO)

By product	Raw material - (Low Quality)	Raw material - (High Quality)
Product-A	Cost of raw materials : 1,000 Available quantity : 2,094 A01 : 1500 Opening inventory : 0	Cost of raw materials : 1,200 Available quantity : 2,094 A02 : 1500 Opening inventory : 0

Submit | Cancel

Might be constrained by Available quantity!

- Prod A unit consumption: 2 RM/Prod.
- Buy 1500 for Low Quality and another 1500 for High Quality

Action (by CPO):
- Buy 1500 Low Quality RM
- Buy 1500 High Quality RM

Y1M2
Suggested Decisions Completed

- Build 3 Prod A Production Lines (CPO)
- Approve CAPEX of the above (CFO)
- Recruit people (COO)
- Raw Materials Sourcing (CPO)

- A few other things to highlight before going into M3…

Sales Supporting Capability
(see pg 49 in Handbook)

- Actual sales that can be achieved is capped by the Sales Supporting Capability.
- It is the Minimum of Departmental Sales Supporting Capability (Production department not included).
- Departmental Sales Supporting Capability =

  Base Capability x Number of employees x Average employee ability index_1

- Base Capability:
  - Marketing: $1680K; Finance: $4200K; Management: $2520K; Technical: $2016K

** index_1 for untrained, non-incentive provided employees will start from lower rates depending on the recruited employee levels: Level1 from 0.5, Level2 from 0.6 and Level3 from 0.7. Their maximum achievable levels will be capped differently.*

Sales Supporting Capability

- **Departmental Sales Supporting Capability =**

  Base Capability x Number of employees x Average employee ability index

Department	Base Capability (NT$/head)	Number of Employees	Average employee ability index*	Departmental Sales Supporting Capability
Marketing	NT$1,680,000	7	0.50	NT$5,880,000
Finance	NT$4,200,000	3	0.50	NT$6,300,000
Management	NT$2,520,000	5	0.50	NT$6,300,000
Technical	NT$2,016,000	6	0.50	NT$6,048,000
Sales Supporting Capability (defined by the lowest department)				NT$5,880,000

Lowest

- Minimum of the four Departmental Sales Supporting Capability is at $5,880k.
- This sets the overall Sales Supporting Capability of the company.
  - Reminder: This is in NTD basis while Sales Revenue in USD basis!

Please use your actual "Number of Employees" to evaluate!


Y1M3

Y1M3 Decisions suggested

- Deploy Production Manpower (COO)
- Production Planning (feed Raw Materials) (COO)
- Price setting (CMO)
- Sales Force allocation (CMO)
- Raw Materials sourcing (CPO)

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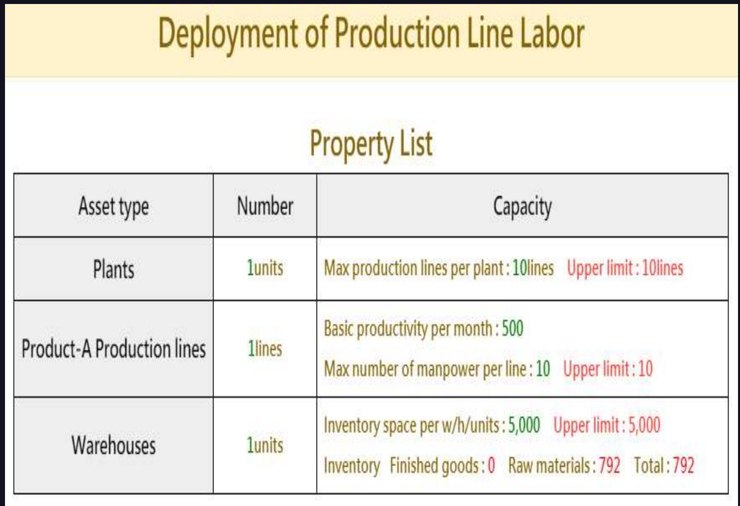
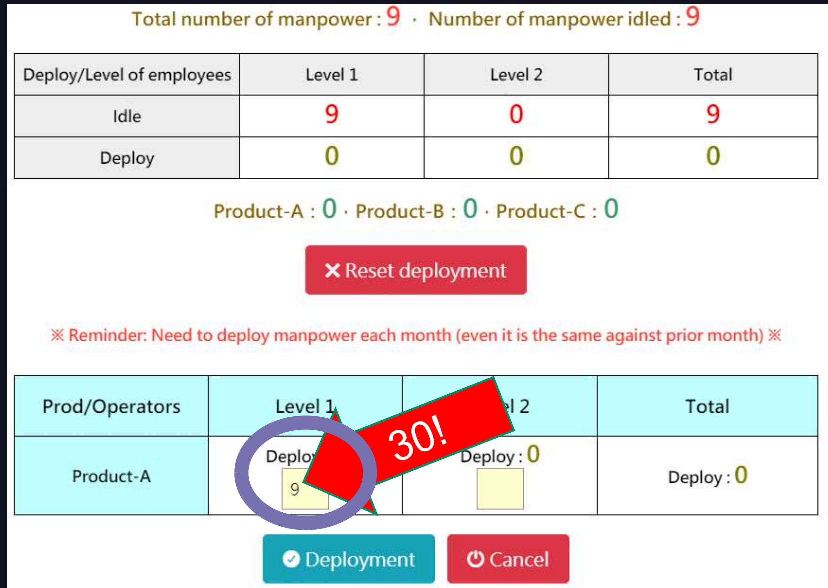
Deploy Production Manpower (COO) Processes>Deployment of Production Line Labor



Deployment of Production Line Labor

Property List

Asset type	Number	Capacity
Plants	1units	Max production lines per plant : 10lines Upper limit : 10lines
Product-A Production lines	1lines	Basic productivity per month : 500 Max number of manpower per line : 10 Upper limit : 10
Warehouses	1units	Inventory space per w/h/units : 5,000 Upper limit : 5,000 Inventory Finished goods : 0 Raw materials : 792 Total : 792



Total number of manpower : 9 · Number of manpower idled : 9

Deploy/Level of employees	Level 1	Level 2	Total
Idle	9	0	9
Deploy	0	0	0

Product-A : 0 · Product-B : 0 · Product-C : 0

Reset deployment

※ Reminder: Need to deploy manpower each month (even it is the same against prior month) ※

Prod/Operators	Level 1	Level 2	Total
Product-A	Deploy 9	Deploy : 0	Deploy : 0

Deployment Cancel

Maximum 10 manpower per Line can be deployed. We planned to recruit 32 production employees (Operators) in M2. But actual onboard could be less!

Action (by COO):
- Deploy Production Manpower

- Deploy Production Manpower (COO)
- Production Planning (feed Raw Materials) (COO)
- Price setting (CMO)
- Sales Force allocation (CMO)
- Raw Materials sourcing (CPO)

Production Planning (Feed RM) (COO)
Processes>Production Volume Planning

Production Volume Planning

Property List

Asset type	Number	C
Plants	1units	Max production lines per plant : 1
Product-A Production lines	1lines	Basic productivity per month : 500 Max number of manpower per line : 10 Upper limit : 10
Warehouses	1units	Inventory space per w/h/units : 5,000 Upper limit : 5,000 Inventory Finished goods : 0 Raw materials : 792 Total : 792

Refer to actual display from demonstrated screen!

※ Warning! Deploy manpower BEFORE implementing Volume Planning here ※
※ No estimation is provided unless relevant raw materials feed is entered below. ※

...terials	Raw materials-(high quality)	Estimations
	(Opening inventory : 792) A02 :	FP inventory : 0 EOL : 0 EOM : 0 EOM/EOL : Estimated outputs : 0

EOL : Estimated outputs based on manpower deployment
EOM : Estimated outputs based on material consumption
EOM/EOL : Low/High Quality feed ratio

Submit Cancel

Prod A consumes 2 units of RM per product.
This decision needs to be made each month.
Here, we should feed 1500/1500 for Low/High Quality Raw Materials.

Action (by COO):
- Feed RM for Prod A Production

- Deploy Production Manpower (COO)
- Production Planning (feed Raw Materials) (COO)
- Price setting (CMO)
- Sales Force allocation (CMO)
- Raw Materials sourcing (CPO)

Selling Price Setting (CMO)
Territory>Product Pricing

Product Pricing

(Currency : USD)

Supply market	Emerging market	Developed market
Product-A	200 ↔ 375 Pricing 300	242 ↔ 454.2945 Pricing 360

Submit Cancel

Pricing range is set and capped by the System

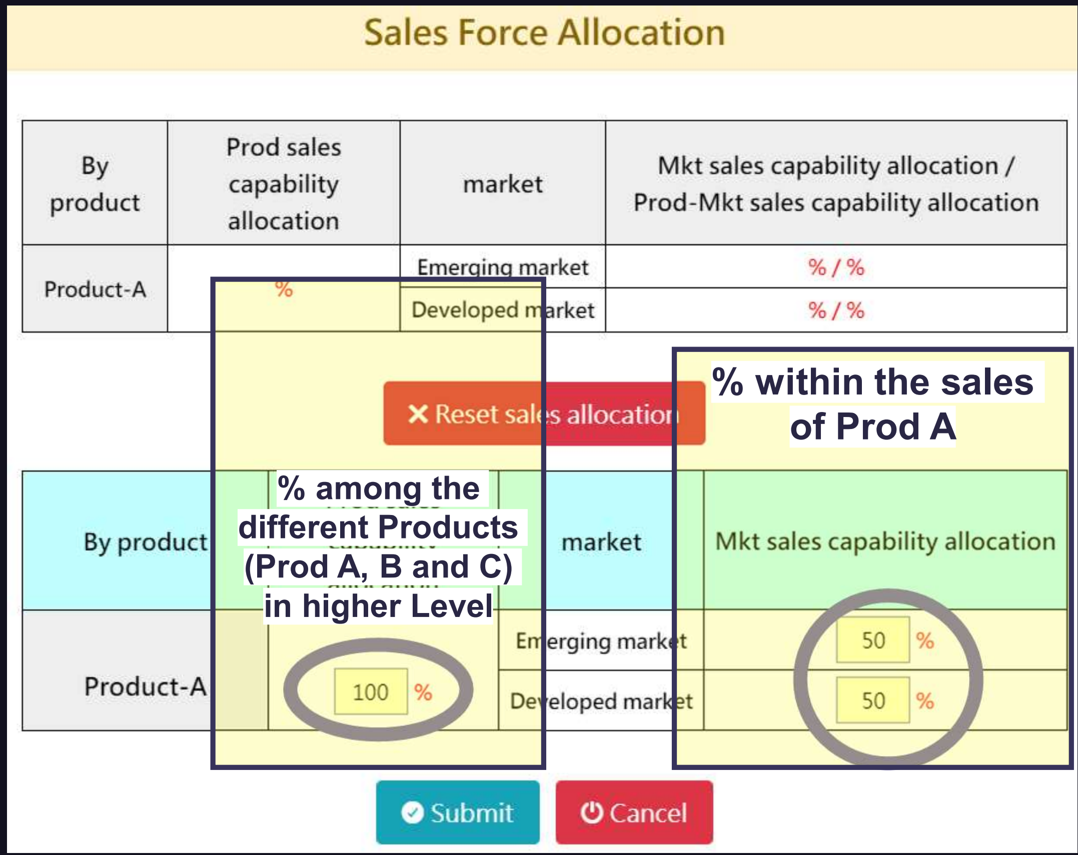
Action (by CMO):
- Pricing: Emerging mkt $300
- Pricing: Developed mkt $360

Or somewhere near the maximum price~

- Deploy Production Manpower (COO)
- Production Planning (feed Raw Materials) (COO)
- Price setting (CMO)
- Sales Force allocation (CMO)
- Raw Materials sourcing (CPO)

Sales Force allocation (CMO)
Territory>Sales Force Allocation

Action (by CMO):
Allocate:
- Prod A: 100%
  - Emerging mkt 50%
  - Developed mkt 50%



If not adjusted, it will retain the same allocation as prior month from subsequent months forward

- Deploy Production Manpower (COO)
- Production Planning (feed Raw Materials) (COO)
- Price setting (CMO)
- Sales Force allocation (CMO)
- Raw Materials sourcing (CPO)

Raw Material Sourcing (CPO)
Inputs>Raw Material Sourcing

Raw Material Sourcing

By product	Raw material - (Low Quality)	Raw material - (High Quality)
Product-A	Cost of raw materials : 1,000 Available quantity : 2,094 A01 : Opening inventory : 750	Cost of raw materials : 1,200 Available quantity : 2,094 A02 : Opening inventory : 1,312

Capped by Available quantity!
Need to buy each month!!
But also beware of potential high inventory!

Action (by CPO):
Buy each Low Quality and High Quality RM of 1500 or the capped Available quantity

Y1M3
Suggested Decisions Completed

- Deploy Production Manpower (COO)
- Production Planning (feed Raw Materials) (COO)
- Price setting (CMO)
- Sales Force allocation (CMO)
- Raw Materials sourcing (CPO)

- A few other things to highlight before going into M4

Summary – Basic steps needed to reach making sales of Prod A in 3 months

M1
- Product R&D (expedited), (COO)
- Build Plant and Warehouse (CPO)
- Approve CAPEX (CFO)

M2
- Build Production Line (CPO)
- Recruitment (COO)
- Approve CAPEX (CFO)
- Raw Materials sourcing (CPO)

M3
- Deploy Production Manpower, Production planning - feed RM (COO)
- Price setting, Sales Force allocation (CMO)
- RM sourcing (CPO)


Y1M4

Y1M4 Onwards

- You are free to make your decisions
- Reminder: Some Decision items need to be made every month onwards:
  - Raw Materials sourcing – to get RM delivered next month
  - Deploy Production Manpower - to enable production current month
  - Production Planning – to enable products made current month
- And of course, there are other decisions to be made…

Thank You

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