



Using S&T Tree pattern to communicate the need for new procedures in a TOC implementation

Jelena Fedurko
TOC Strategic Solutions





Jelena Fedurko

Jelena is Founder and Co-President of the International Alliance of TOC Practitioners – TOCPA.

Jelena has 14 years of TOC experience as a trainer and consultant providing support in TOC implementations in the areas of production, supply chain, project management, sales, marketing and people management.

Jelena has worked in Japan, Poland, Turkey, Italy, Russia, Ukraine, India, China, Chile, Colombia, Mexico and other countries throughout the world.

Jelena is the author of the books *Behind the Cloud* – *Enhancing logical thinking* and *Through Clouds to Solutions: Working with UDEs and UDE Clouds.* The books present new developments in the area of working with assumptions and UDE Clouds.

Together with Oded Cohen, Jelena has co-authored the book *Theory of Constraints Fundamentals*.

She has authored numerous articles on TOC concepts and implementation, and has contributed to and edited several TOC books.

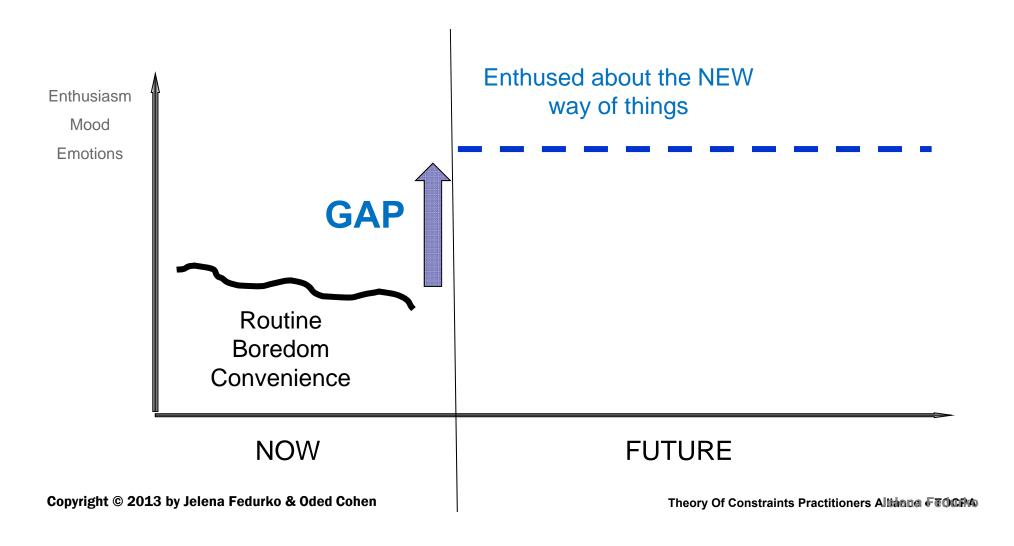


jelenafedurko.gs@gmail.com www.toc-strategicsolutions.com www.tocpractice.com





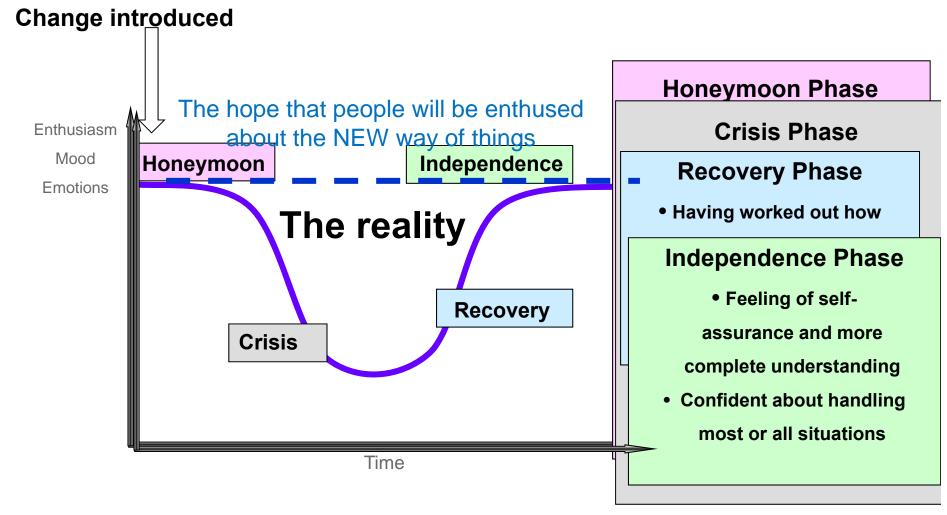
Managerial hopes about the change







A major change - what is often happening in reality

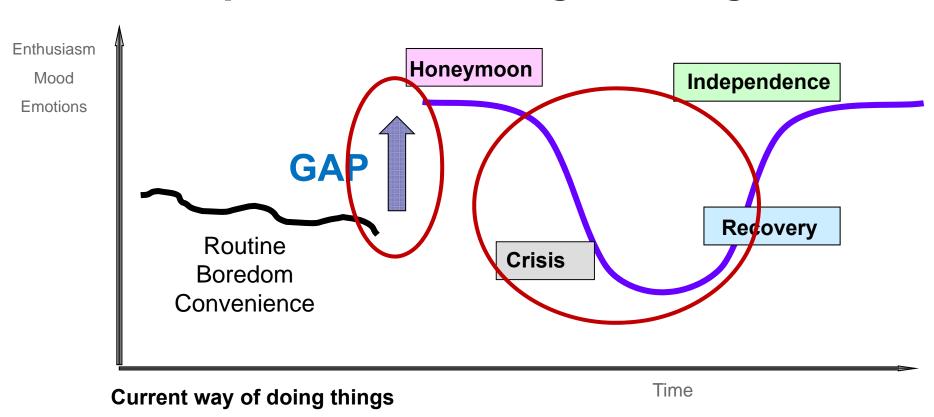


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Two areas of a managerial effort in the process of change management

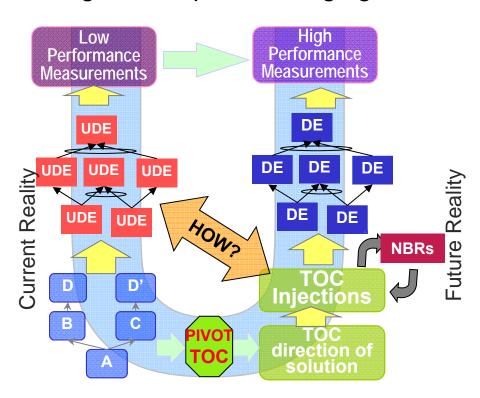






Bringing in a new solution

A new solution will not work without new procedures – when WHAT is changed, it requires changing HOW.



Developing procedures is usually perceived as the final stage of preparatory work for implementation.

However, often there is a need to communicate the justification for the new procedures to bosses, peers and subordinates:

- Do we need the new procedure at all? (Layer 1)
- How do we know that it is through this new procedure the Injection will give us promised benefits? (Layers 2 & 3)



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Understanding the Gap WHAT and WHERE

The understanding that a system change is needed is usually triggered by realization of the Gap in performance

Two processes:

- Identifying UDEs and building UDE Clouds UDE is expressing WHAT is bad
- 2. Building the Deployment Chart to identify WHERE in the processes this UDE is "programmed" into the system





1 - Process of identifying UDEs and building UDE Clouds

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1 List of UDEs

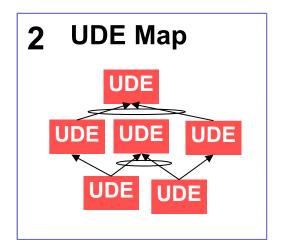
UDE1: xxxxxxxxx

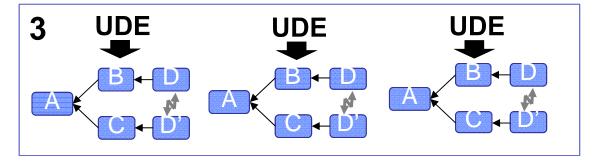
UDE2: xxxxxxxxx

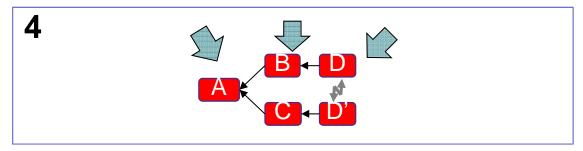
UDE3: xxxxxxxxx

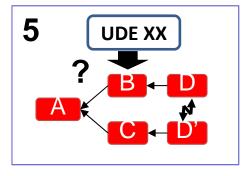
UDE4: xxxxxxxxx

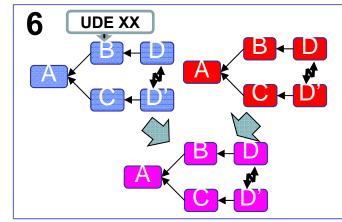
UDE5: xxxxxxxxx











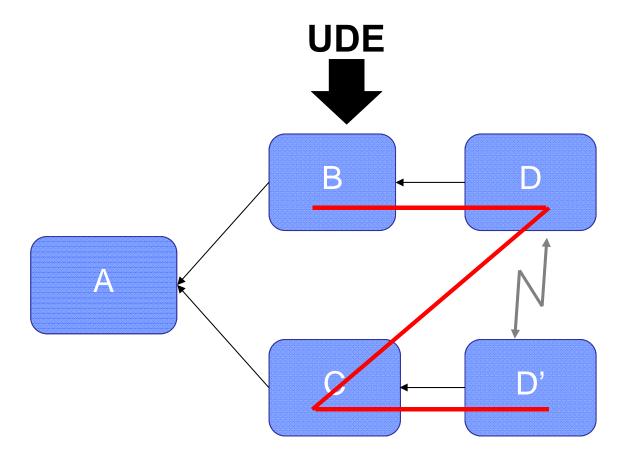


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Building an UDE Cloud

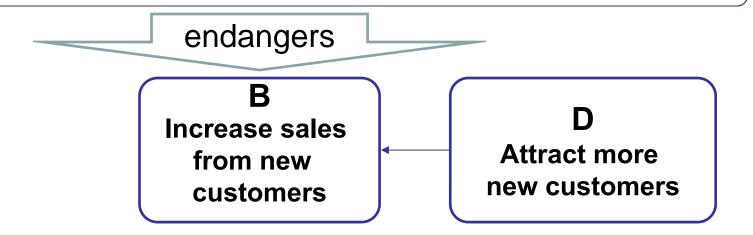








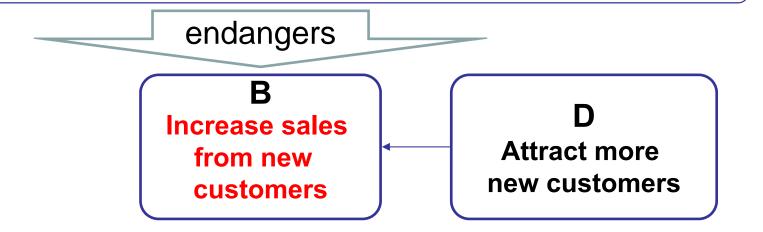
Such UDE Clouds do not really help







Such UDE Clouds do not really help



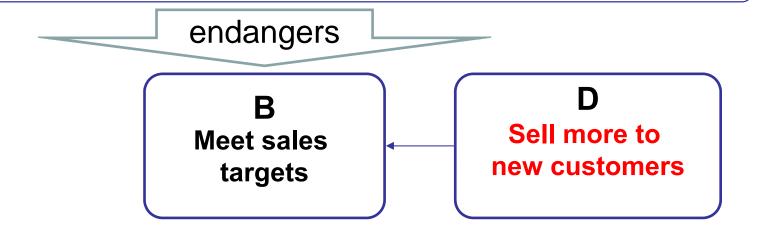
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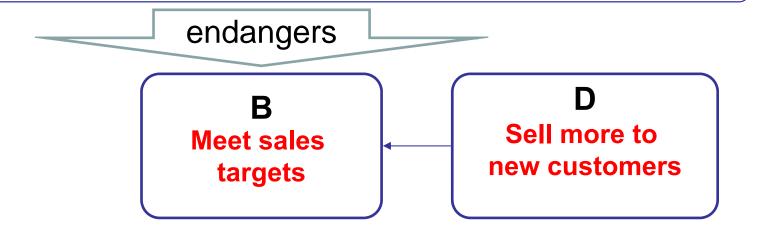
Such UDE Clouds do not really help







Such UDE Clouds do not really help





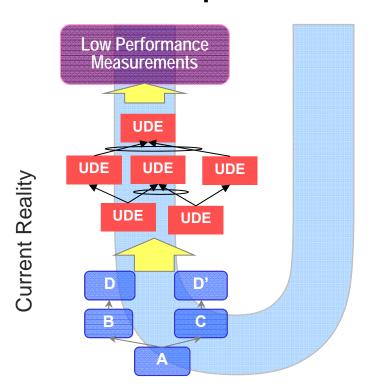
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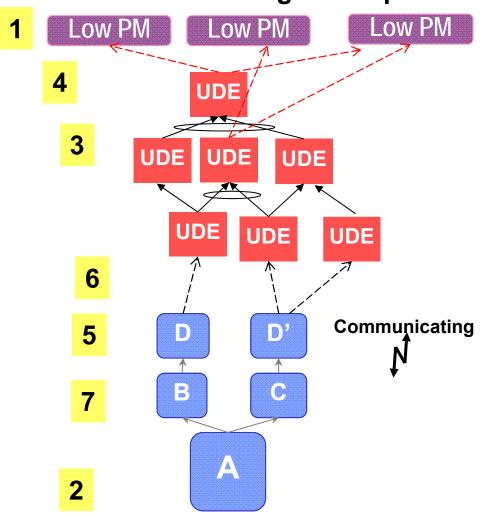


Communicating the Gap - WHAT and WHY

Communicating the Gap

Understanding the Gap





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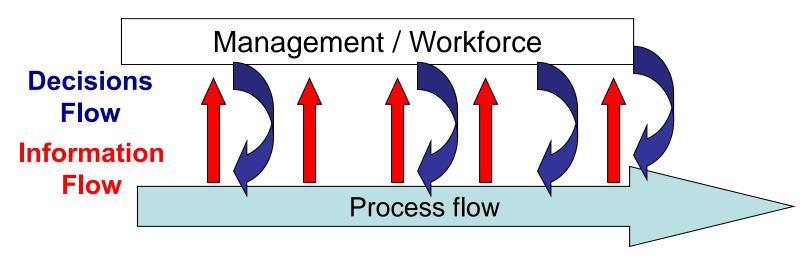
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2 - Process of building a Deployment Chart

and marking procedures that sustain UDEs

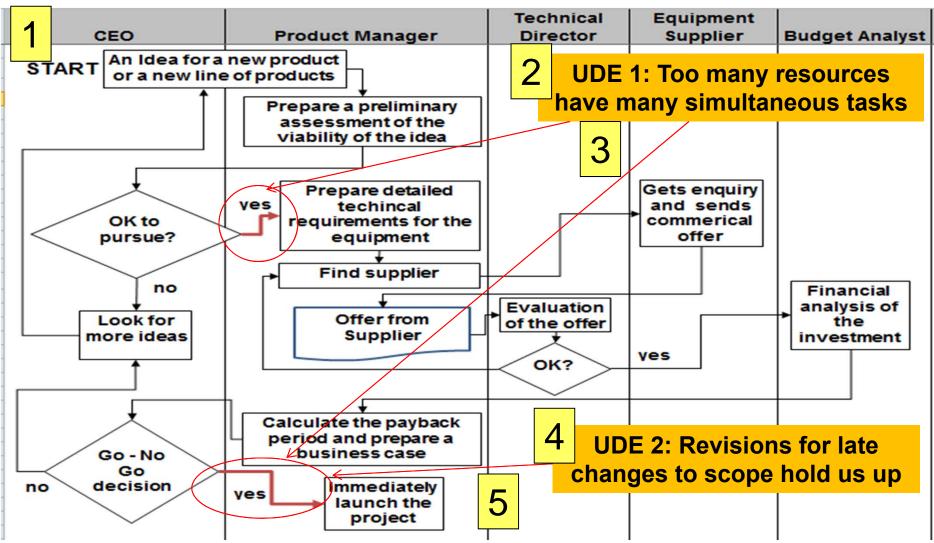


- In the Deployment chart we look at the process flow as the interaction between different "players"
- Information flow system of reports and signals ('for purpose') For that there should be relevant data in the process flow
- Decision flow the paradigm for the decision





2 - Process of building a Deployment Chart and marking procedures that sustain UDEs



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The need to communicate www.tocsa.co.za justification for the new procedures

Dealing with the questions discussed before:

- 1. Do we need the new procedure at all? (Layer 1)
- Deployment Chart with the marked areas in the current processes that sustain UDEs
- Justification to stop doing the wrong things
- 2. How do we know that it is through this new procedure the suggest change (the Injection) will give us promised benefits? (Layers 2 & 3)
- The logical structure of an S&T step
- Justification to start doing the right thing





S&T Step - generic questions

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The entities within an S&T step are the answer to some generic questions.

Necessary Assumption	Why do we need this element of the strategy to be achieved?
Strategy	What has to be achieved?
Parallel Assumptions	Why will the tactic / action / activity achieve this element of the strategy?
Tactic	How do we accomplish this element of the strategy?
Sufficiency Assumption	Why is accomplishing this strategy/tactic at risk without providing another level of details?



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Questions adjusted for Organization S&T Tree

Organization S&T Tree is used when there is a need achieve sustainability and robustness in the synchronization of everyone in an organization towards taking only those actions that align locally with the strategic direction, which has been implemented via a transformation.

The generic questions are changed to:

Necessary Assumption Why does the organization need the contribution from this job/function/role?

Strategy

What does this job/function have to achieve for the organisation? What are the key metrics by which to judge achievement / progress for this job/function?

Parallel Assumption(s)

Why will the tactics /actions achieve this strategy?
Why are the actions that should not be done, or should be stopped, harmful to the strategy?

Tactic

How should this strategy/contribution be accomplished - what actions? What actions should not de done or should be stopped?

Sufficiency Assumption Why is accomplishing this strategy/tactic at risk without providing another level of details for the subordinates of this role?



Using S&T Step pattern to justify a new procedure Suggested changes to the generic questions:



1	Necessary Assumption	need this element of the	What negative is there in the company's current reality that does not allow us to achieve high [specific measurement set for this system]? What is the need of the system? The opportunity that we see to "sell" this idea.
2	Strategy – Deliverable	What has to be achieved?	State the expected deliverable/ outcome of the new procedure (IO on the way to the Injection). What NEW we offer as the RESULT of procedure.
4	Parallel Assumptions	Why will the tactic / action / activity achieve this element of the strategy?	Show on what knowledge and/or existing expertise in other companies you base your claim that the new procedure will reach the Deliverable in the Strategy. Prove that this procedure works.
3	Tactic – Procedure	How do we accomplish this element of the strategy?	Describe the new procedure in a concise way. What new mechanism we will introduce that the system did not have before.
5	Sufficiency Assumption	Why is accomplishing this strategy/tactic at risk without providing another level of detai	or underestimate.



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Case - the UDE map



UDE6: We have cash flow problems

UDE2: We often do not have scrap cut to the size requested by the clients

UDE7: Scrap gets contaminated by debris on the site

UDE4: Delivery trucks are often down

UDE1: We regularly do not have oxygen and propane to cut scrap

UDE5: Scrap supplies have to wait too long to grade and offload scrap UDE3: Scrap suppliers are unhappy with the grade we give for their scrap

D

We feel pressure to hire more resources

D'

We feel pressure to make do with the existing resources



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Case - the UDE map (2)



UDE6: We have cash flow problems

How does it happen "technically"? What leads to that?

How does it happen "technically"?
What leads to that?

UDE1: We regularly do not have oxygen and propane to cut scrap

> We feel pressure to hire more resources

D

UDE2: We often do not have scrap cut to the size requested by the clients

UDE5: Scrap supplies have to wait too long to grade and offioad scrap How does it

> happen "technically"? What leads to that?

> > NO AGREEMENT AMONG THE MANAGERS AND NO **CLARITY WHAT**

> > > **CAUSE THE UDES**

CURRENT PROCEDURES

UDE7: Scrap gets contaminated by debris on the site

UDE3: Scrap suppliers are unhappy with the grade we give for their scrap

D'

We feel pressure to make do with the existing resources

UDE4: Delivery trucks are often down

> How does it happen "technically"? What leads to that?

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Using S&T Step pattern www.tocsa.co.za to justify a new procedure/mechanism

Case — The suggested procedure/mechanism: build Deployment Chart

Necessary
Assumption

- What negative is there in the company's current reality that does not allow us to achieve high [specific measurement set for this system]?
 What is the need of the system?
- The opportunity that we see to "sell" this idea.

Our system currently has problems that do not allow us to get more money (profit). Introducing improvements to the operational processes means introducing changes. Any change has a potential risk of destabilizing the system. In order to avoid that, we need to have a clear "snapshot" of the flow of processes and to identify in which points in this flow we need to introduce the changes to get maximum result with minimum efforts.





Using S&T Step pattern www.tocsa.co.za to justify a new procedure/mechanism

Case — The suggested procedure/mechanism: build Deployment Chart

Strategy –
Deliverable

State the expected deliverable/ outcome of the new procedure (IO on the way to the Injection).

What NEW we offer as the RESULT of procedure.

The company has a good visualized understanding of the problematic places/areas in its operational processes.





Using S&T Step pattern www.tocsa.co.za to justify a new procedure/mechanism

Case — The suggested procedure/mechanism: build Deployment Chart

Tactics –
Procedure/
Mechanism

Build the Deployment Chart for every function of the company reflecting the tree types of the flow (1) process flow, (2) information flow, (3) decision flow.

Describe the new procedure in a concise way.

What new mechanism we will introduce that the system did not have before.





Using S&T Step pattern www.tocsa.co.za to justify a new procedure/mechanism

Case — The suggested procedure/mechanism: build Deployment Chart

The parallel assumptions entity is probably the most important one among the three types of assumptions, as it explains why we claim that the strategy is possible at all.

4 Parallel Assumptions

Show on what knowledge and/or existing expertise in other companies you base your claim that the new procedure will reach the Deliverable in the Strategy.

Prove that this procedure works.

Formalizing in writing the Deployment Chart as opposed to an informal knowledge of how the system works helps to get a structured understanding of dependencies and interactions in the processes.

Companies generally widely use structured visualized way to present their reality and demonstrate dependencies – for example, the organizational structure.

Significance of understanding the system processes "blueprint" for making changes is no less than for a technical drawing when a change in a technical process needs to be introduced.

There is available knowledge, methodology and expert support to build a Deployment Chart.





Presenting as a S&T Step

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Necessary assumptions	Our system currently has problems that do not allow us to get more money (profit). Introducing improvements to the operational processes means introducing changes. Any change has a potential risk of destabilizing the system. In order to avoid that, we need to have a clear "snapshot" of the flow of processes and to identify in which points in this flow we need to introduce the changes to get maximum result with minimum efforts.
Strategy	The company has a good visualized understanding of the problematic places/areas in its operational processes.
Parallel assumptions	Formalizing in writing the Deployment Chart as opposed to an informal knowledge of how the system works helps to get a structured understanding of dependencies and interactions in the processes. Companies generally widely use structured visualized way to present their reality and demonstrate dependencies – for example, the organizational structure. Significance of understanding the system processes "blueprint" for making changes is no less than for a technical drawing when a change in a technical process needs to be introduced. There is available knowledge, methodology and expert support to build a Deployment Chart.
Tactic	Build the Deployment Chart for every function of the company reflecting the tree types of the flow (1) process flow, (2) information flow, (3) decision flow.