

# **Proposal of Integrated Reference Model For Realization of Dream and Transformation**

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**Dream Architecting Manufactory**

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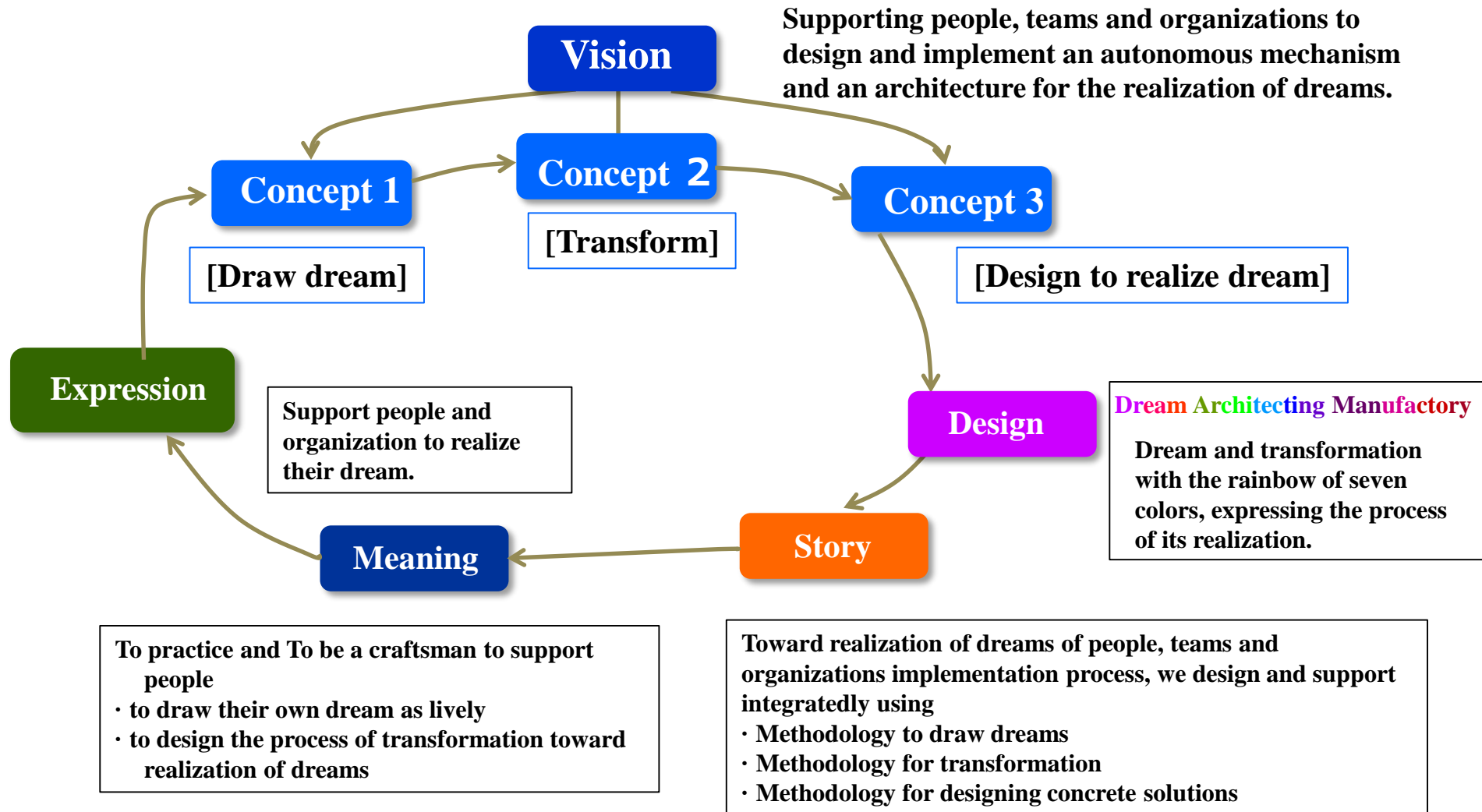
# Contents

- I. Introduction**
- II. Models for realization and transformation of dreams**
- III. Reference model for realization of dream and transformation**
- IV. Multilayered Visualization Representation for Dreaming and Transformation**
- V. Effects and application methods of the integrated reference model**
- VI. Conclusion**

# I. Introduction

# 1. Vision

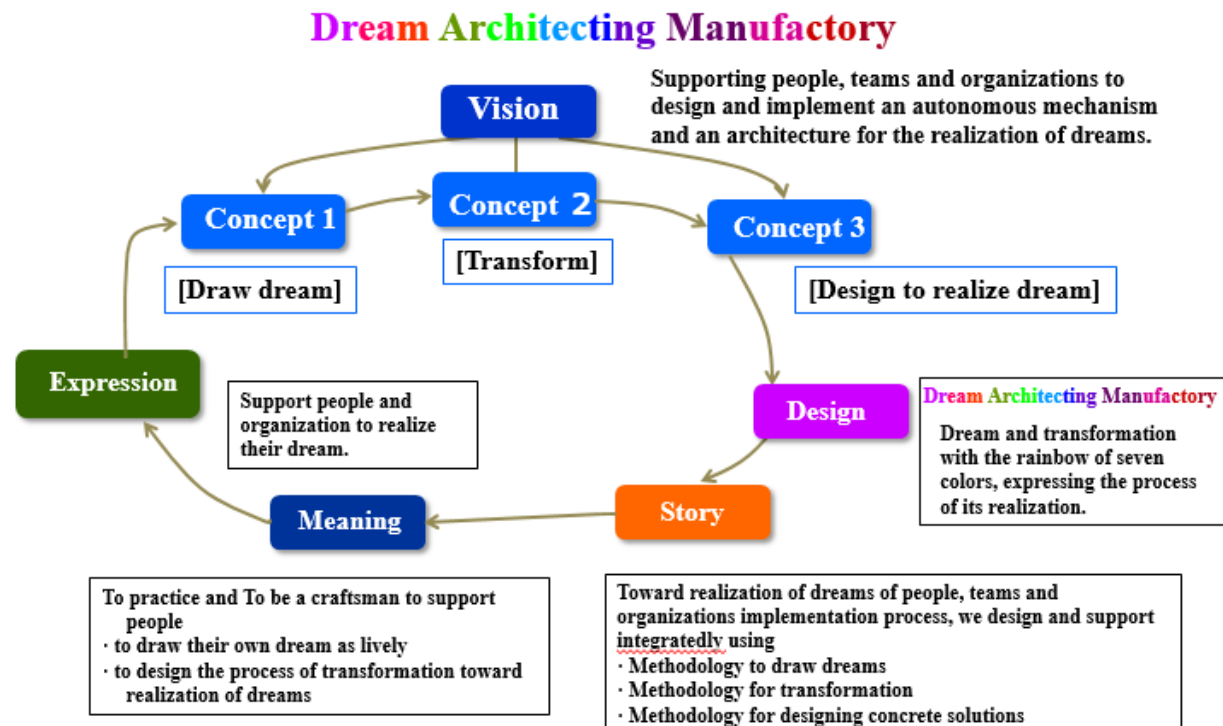
## Dream Architecting Manufactory



## 2. Purpose of the Research

### [Purpose of the Research]

1. I would like to express the vision of Dream Architecting Manufactory with a compact model.
2. Especially, I would like to express "drawing a dream", "transforming", "designing to realize a dream" with an integrated model.



### 3. Process for Realization of Dream and Transformation

Process for Realization of Dream and Transformation

**Draw dream**

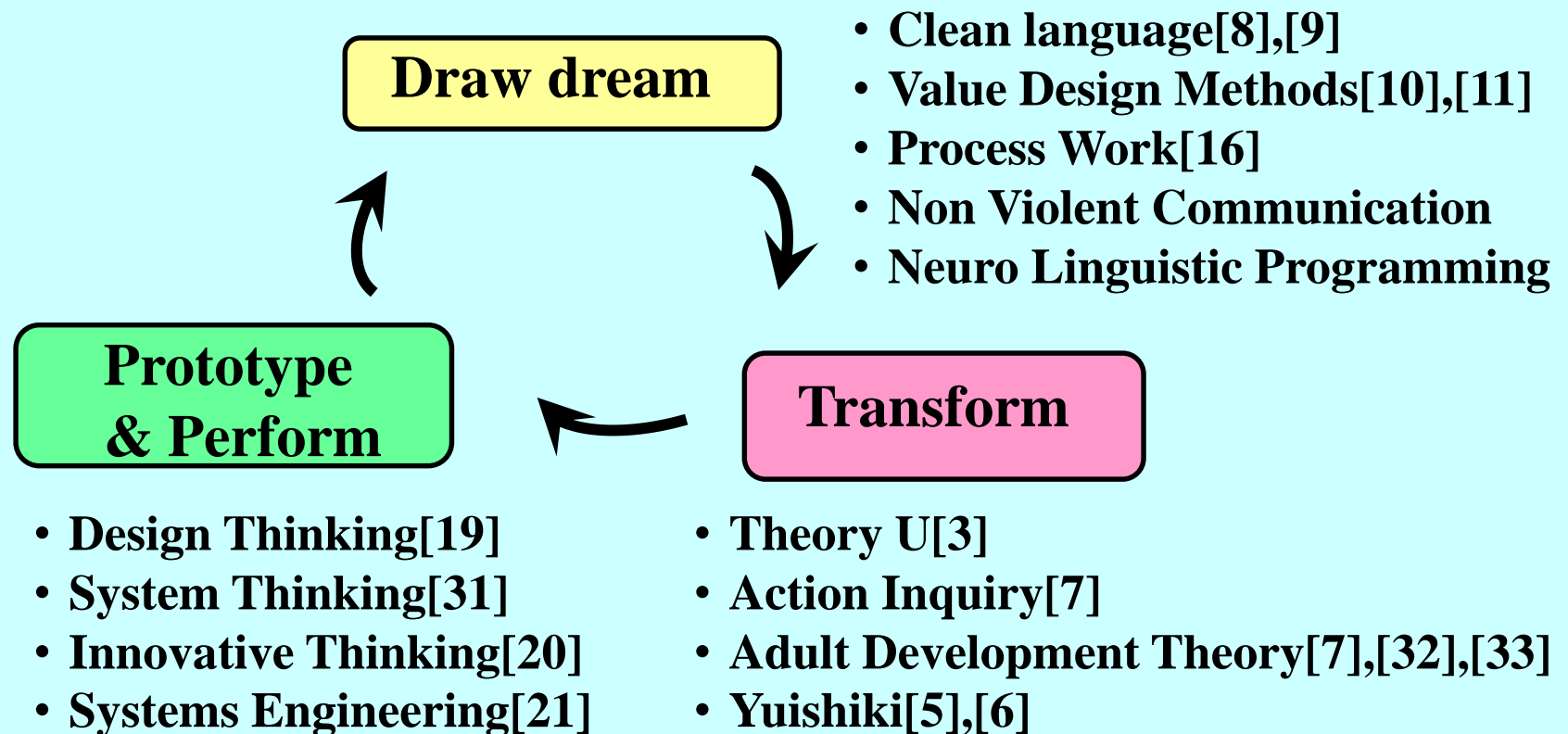
**Prototype  
& Perform**

**Transform**



## 4. Models for Realization of Dream and Transformation

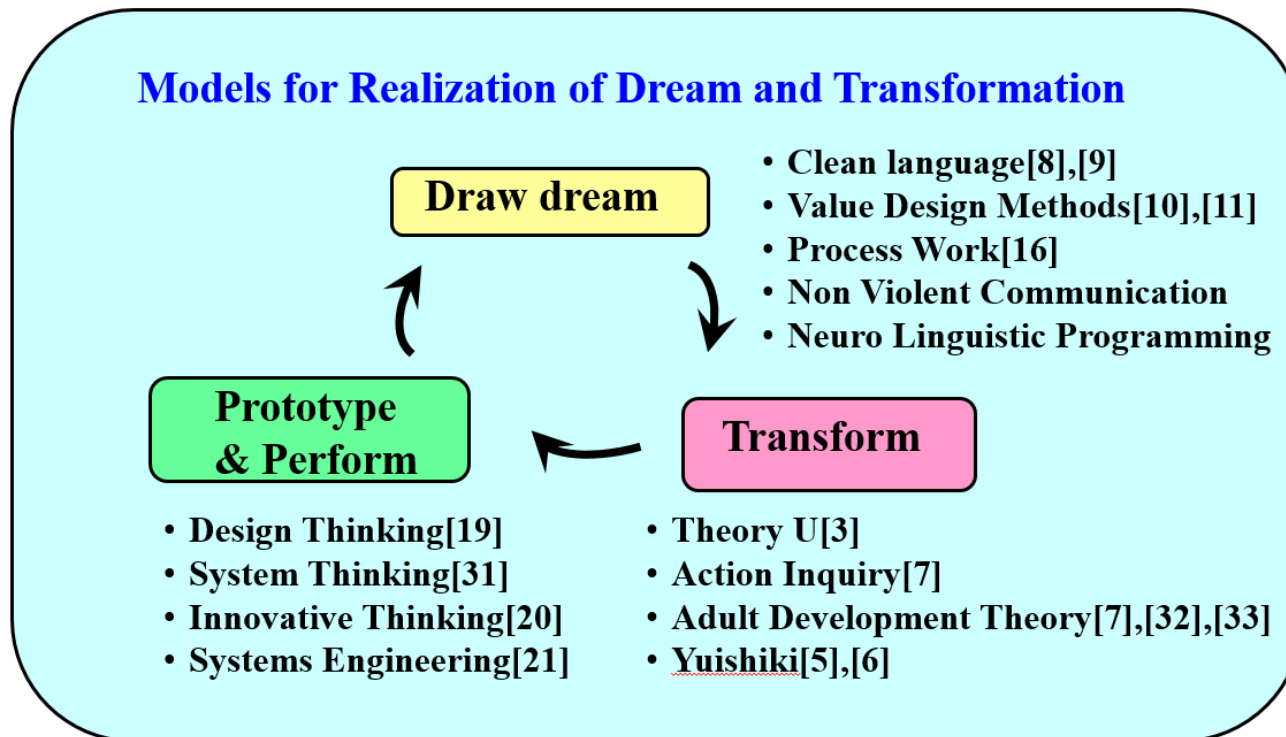
### Models for Realization of Dream and Transformation



## 5. Basic Questions

### [Basic Questions]

1. What is the relationship between these Models for Realization of Dream and Transformation?
2. How to integrate these models?
3. How to utilize the integrated model in everyday life?





## 6. Outline

### [Outline]

- 1. We propose an integrated reference model called IRMDT to comprehensively overlook the relationships of these models for realization of dream and transformation.**
- 2. Based on this reference model IRMDT , we propose a visualization model for human thought processes called MVRDT, from multi-layered perspectives of U process, purpose and means system for realizing dream, reflection process, and belief system.**
- 3. We demonstrate the effectiveness of the IRMDT and MVRDT by describing Mr. Masato Tahara's reflection process, who is a innovative social entrepreneur and self-organization facilitator.**

## **II. Models for realization and transformation of dreams**

# **1. Models for Realization of Dream and Transformation**

- 1. Theory U**
- 2. Action Inquiry**
- 3. Adult Development Theory**
- 4. Architecture Meta Model**
- 5. Systems Engineering**

# 1. Theory U

## 1. Methodology Theory U

## 2. Advocate Otto Schamer

## 3. What is Theory U?

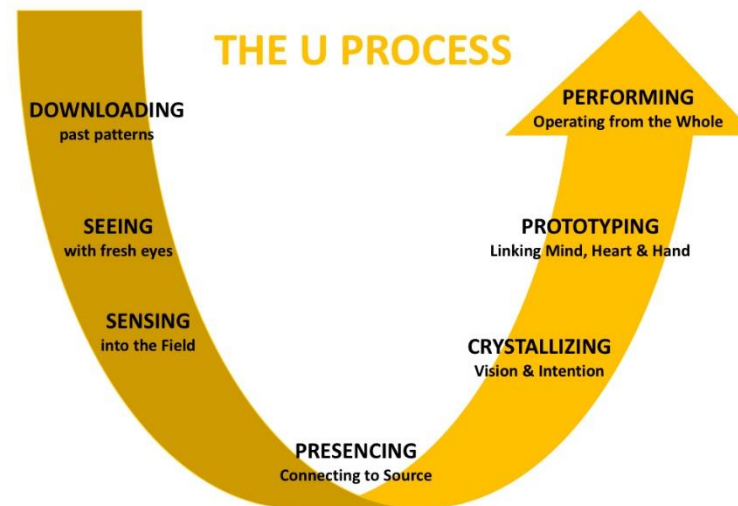
A theory expressing principles and practical methods for causing transformation and innovation in individuals, pairs, teams, organizations, communities, and society which is not just on the extension of the past.

## 4. Feature of Theory U

Instead of paying attention to the "way of doing good leaders", it focuses on their "inner way of being," that is transformation of consciousness, when advanced performance and changes occur.



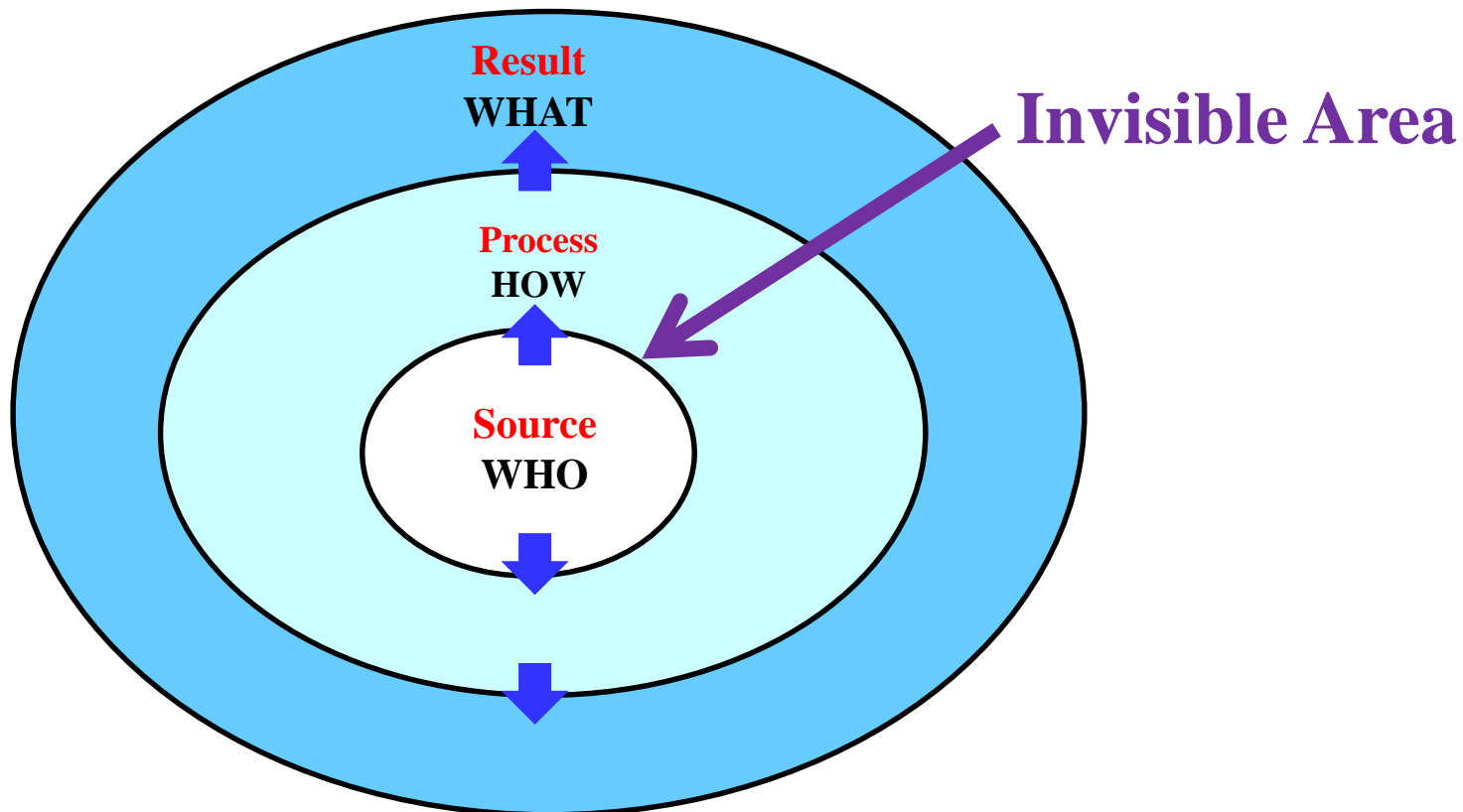
Otto Schamer



[3],[4]

## 2. Invisible area that affect results

1. The leaders' inner mind.
2. Source, which is a core of the leader which any other person cannot know.
3. There is a great correlation between "source" and performance.
4. Each person has his own unique individuality and personality. We assume that the source is producing individuality and personality of each person.



[3],[4]

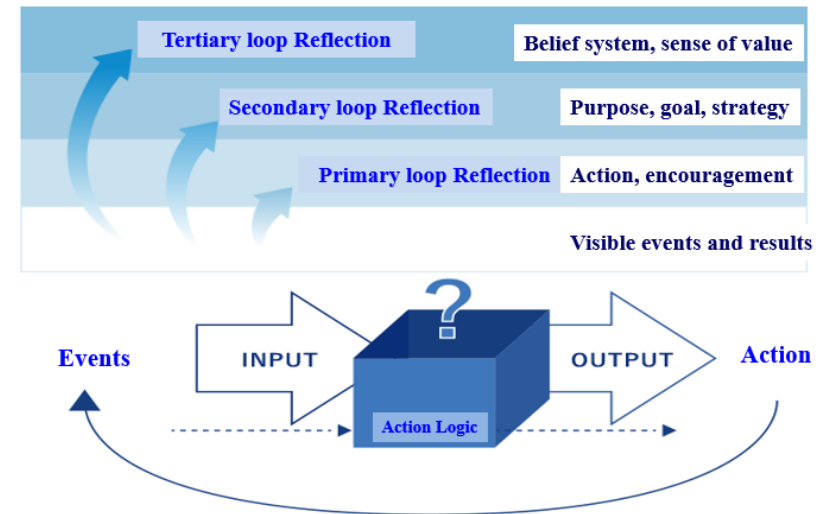
### 3. Action Inquiry

1. **Methodology** Action Inquiry
2. **Advocator** Bill Torbert
3. **Stakeholder** Person, organization, society desiring transformation
4. **Concern** Action Logic, Four areas of person's awareness
5. **Viewpoint** Feedback Learning (Primary loop Reflection, Secondary loop Reflection, Tertiary loop Reflection)



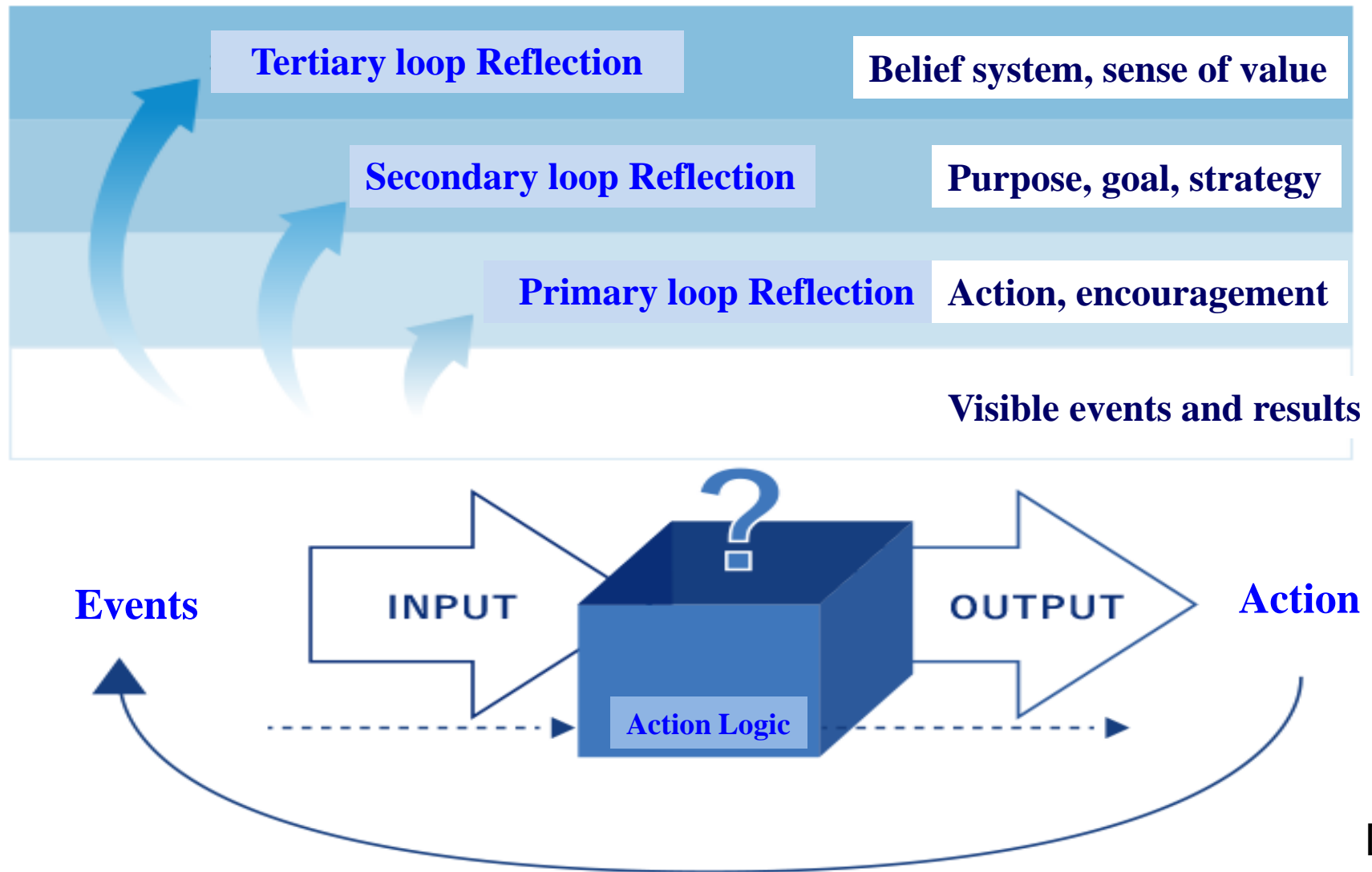
#### [Key Concern]

What are the daily practical behavioral principles for transformation and the source of growth?

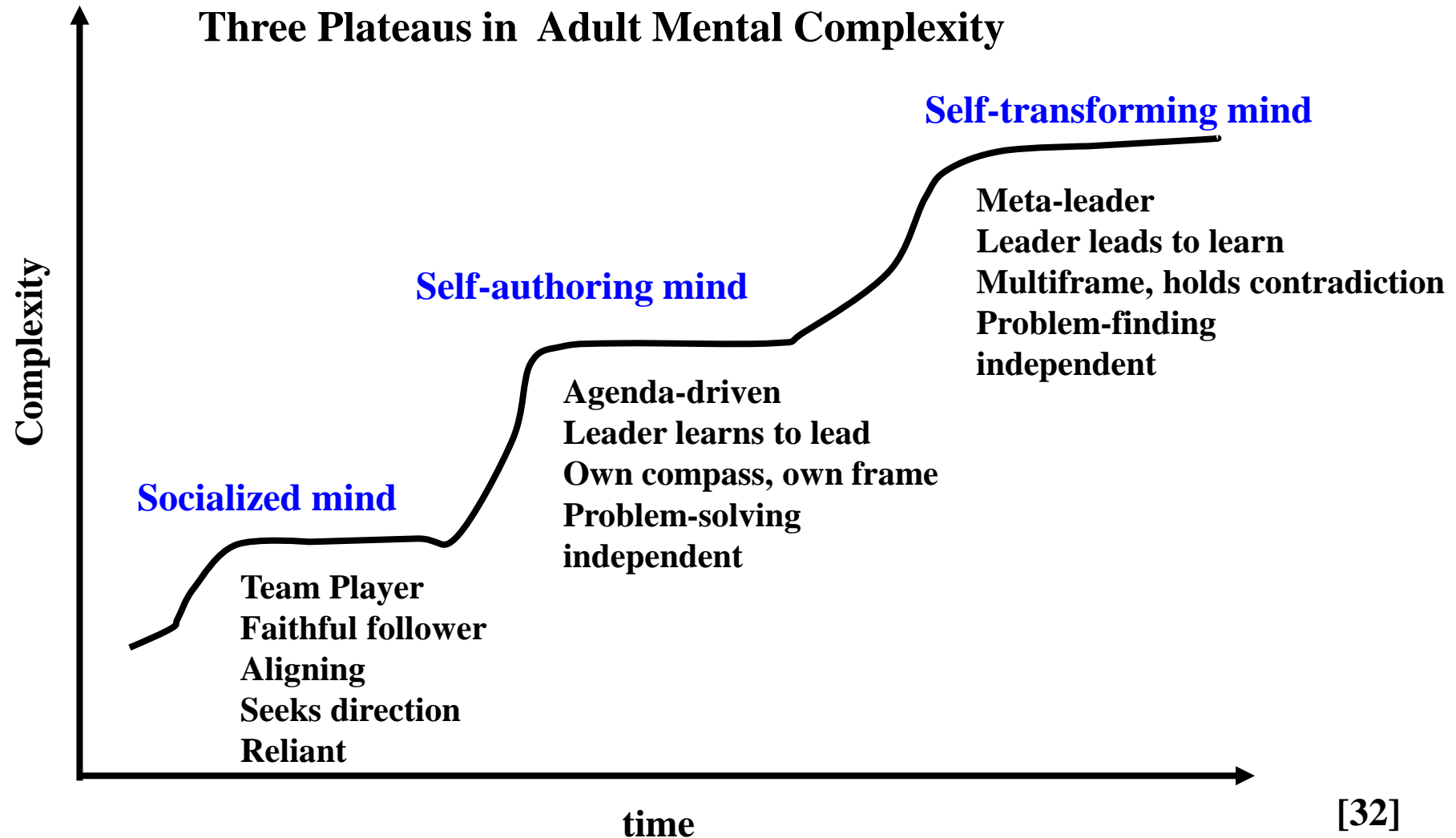


[7]

## 4. Three levels of reflection

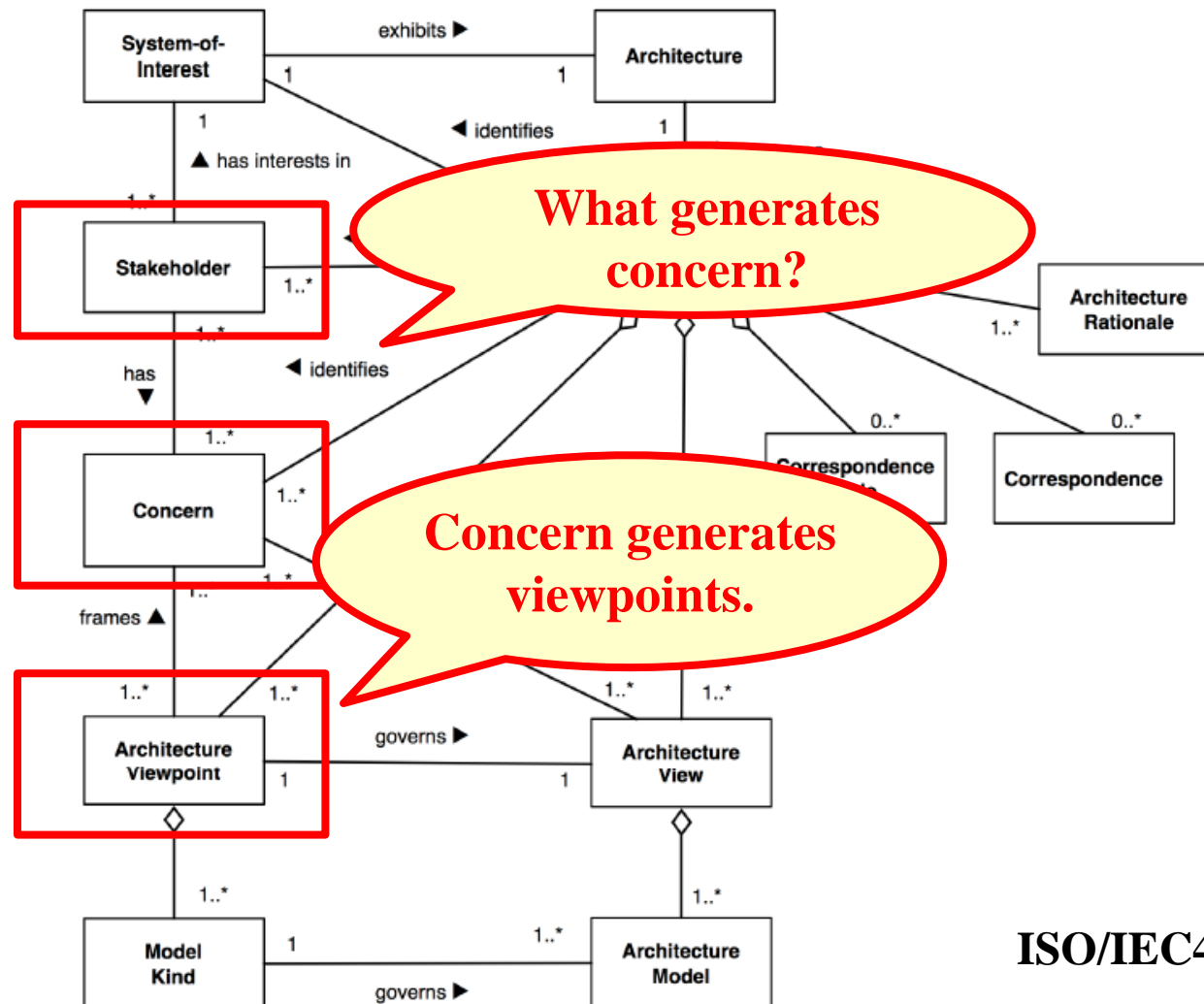


## 5. Adult Development Theory (Robert Kegan)



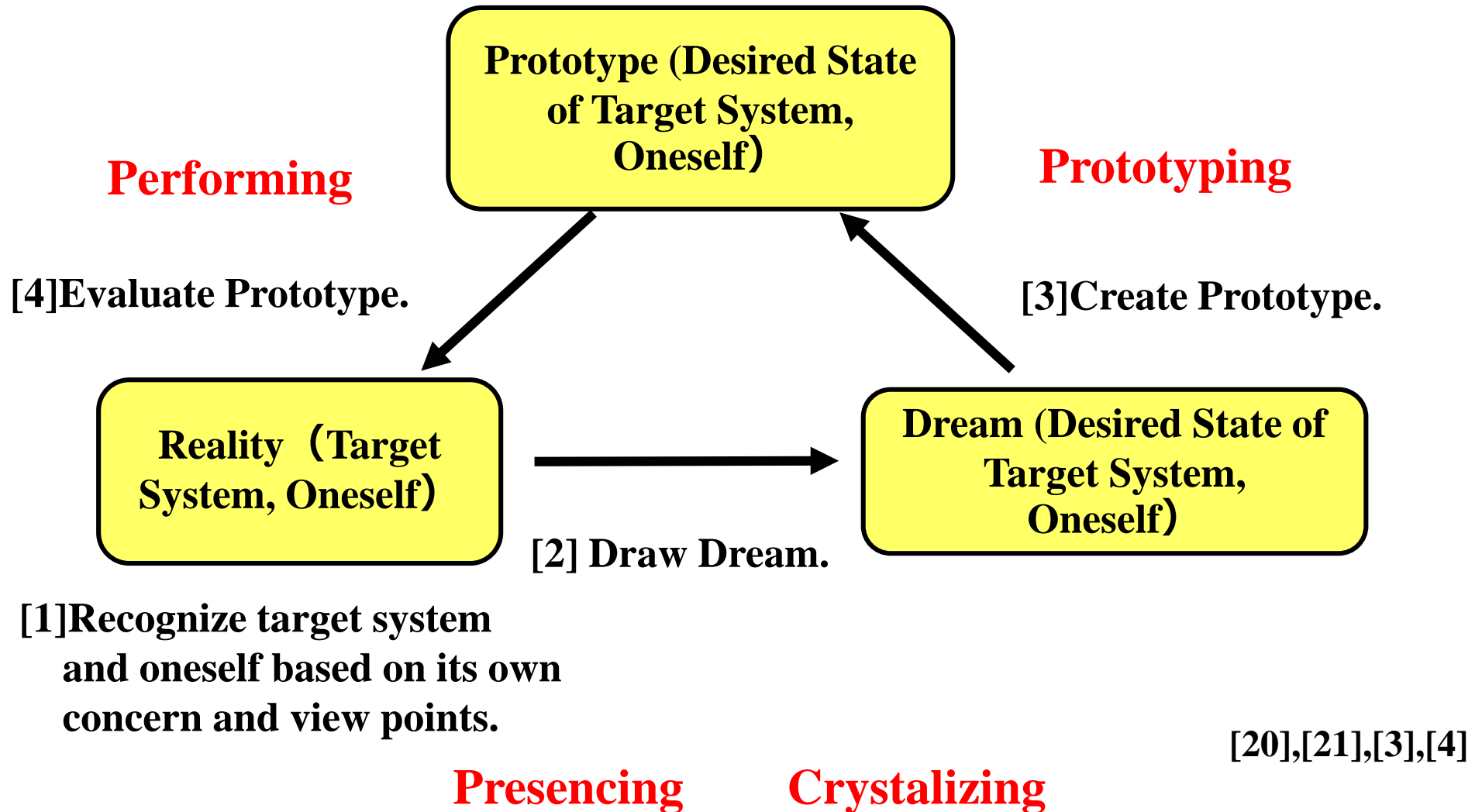


## 6. Framework for Architecture(ISO/IEC42010)



ISO/IEC42010:2011

## 7. Realization Cycle of things(Mono) and events(Koto)

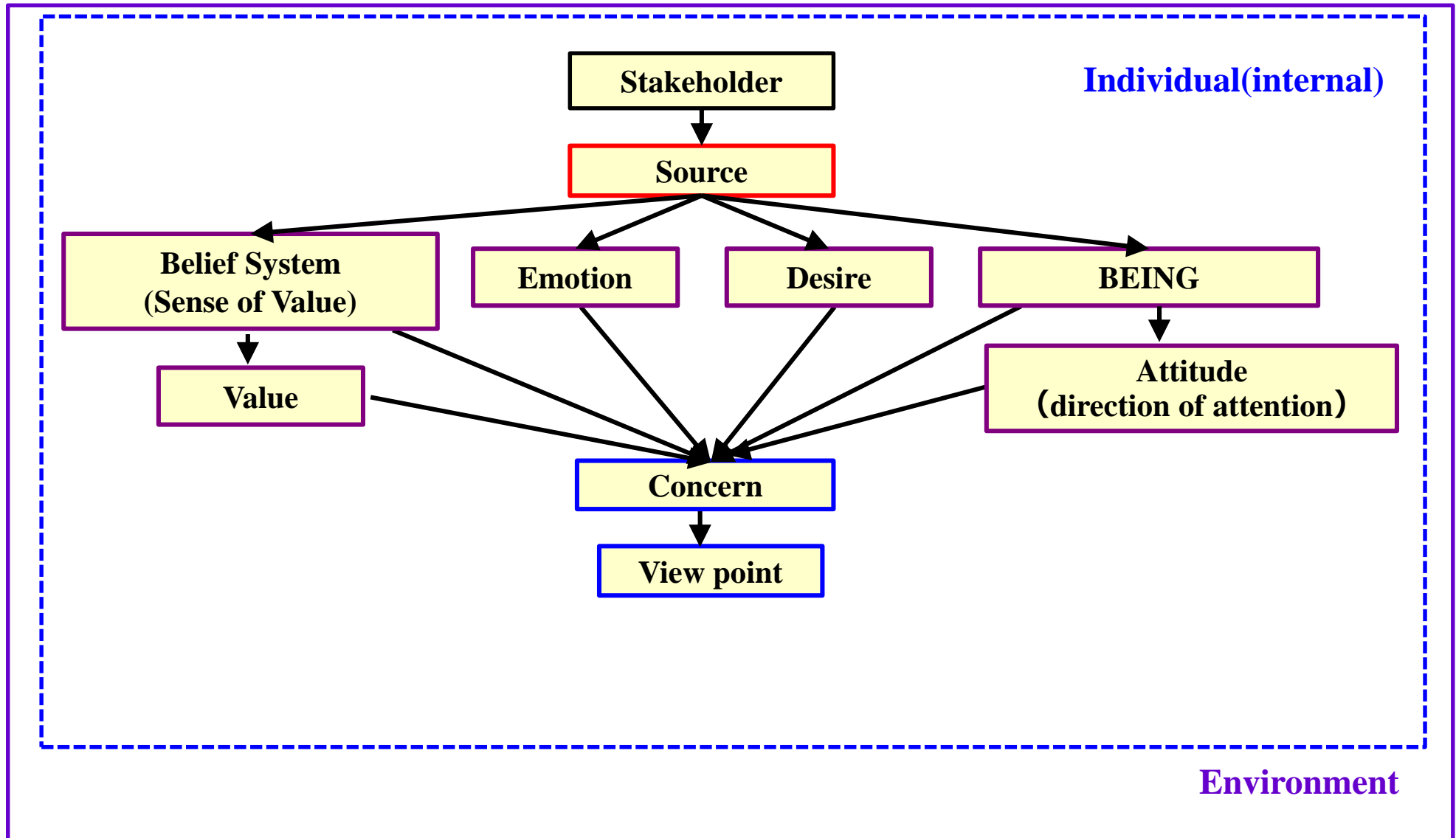


### **III. Reference model for realization of dream and transformation**

# **1. Requirements for Integrated Reference Model (1)**

- 1. It consists of the individual (inside) and the environment where the individual acts.**
- 2. Starting from "Source" indicating personal characteristics.**
- 3. "Emotion", "Desire", "Belief System (Sense of value)", "Way of Being (BEING)", "Value" and "Attitude" are included in the map in addition to "Source" as components of the individual's inside.**
- 4. The above elements of the individual's inside produce individual "Concerns".**
- 5. Personal "Concerns" produces "Viewpoints" of seeing the target system and the world.**

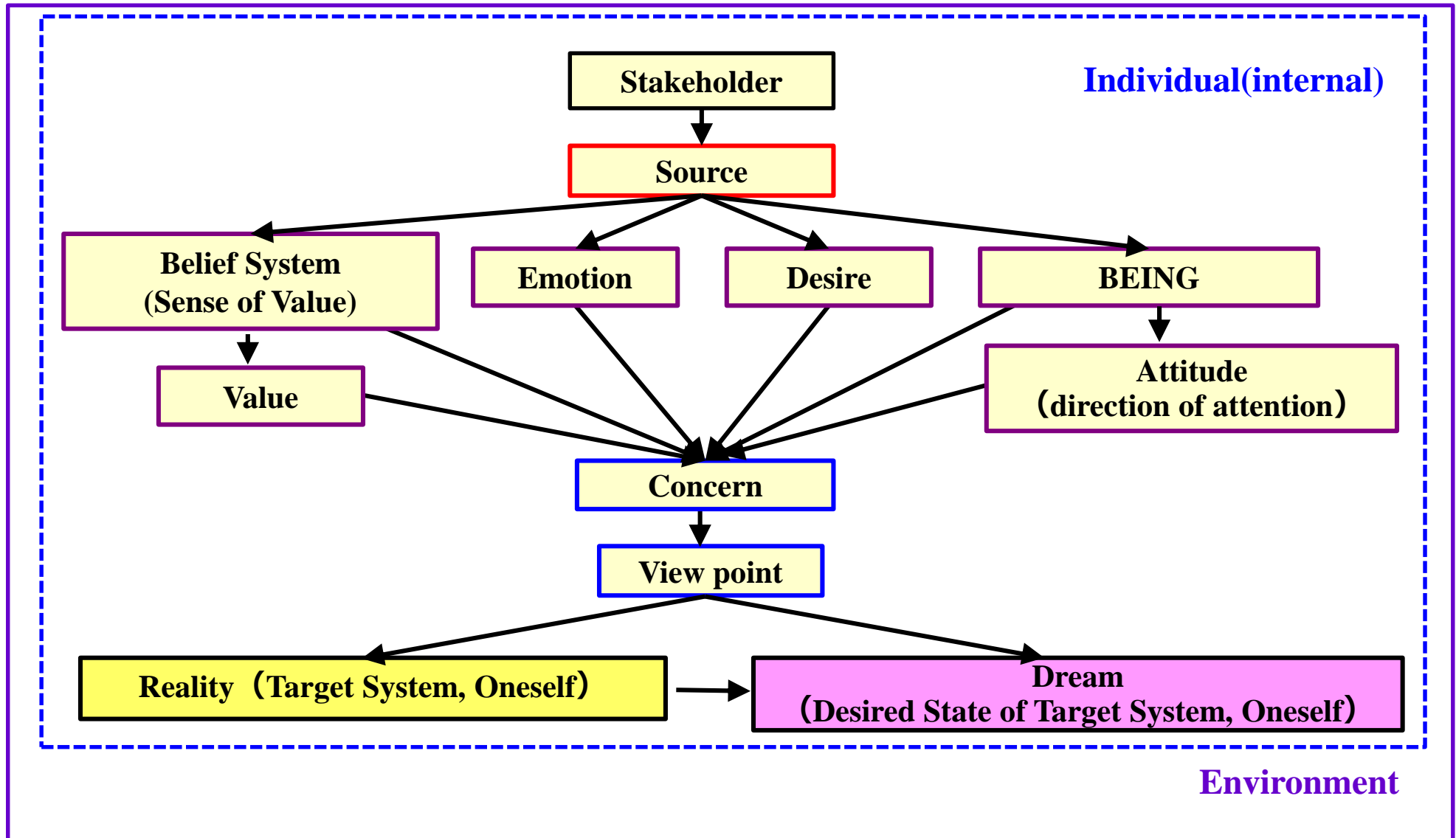
## 2. Integrated reference model for internal of the individual (1)



### **3. Requirements for Integrated Reference Model (2)**

- 6. Draw "Reality" recognized from the above viewpoint and "Dream" as the form that it wants to be, and make them components of the map.**
- 7. Let your intention to transition to a specific U process state at that moment, as the property of "Attitude (direction of attention)".**

## 4. Integrated reference model for internal of the individual (2)



## **5. Requirements for Integrated Reference Model (3)**

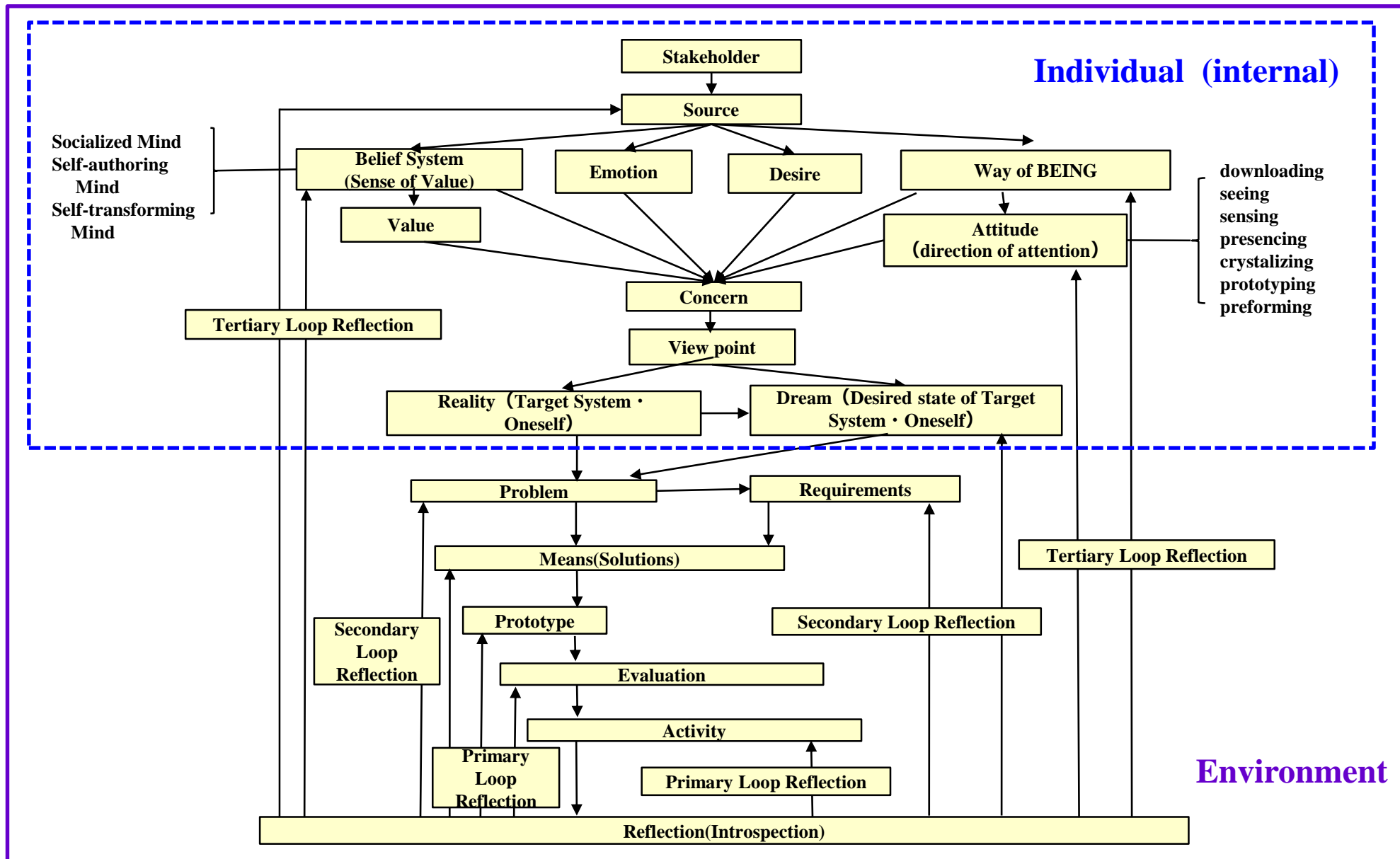
- 8. "Problems", "Requests", "Solutions" necessary for the realization of dreams are components of the map.**
- 9. "Prototype", "Evaluation", "Activity", "Reflection" are provided as activities of individuals in the environment.**

**Following three types of reflection are modeled;**

- (1)"Primary loop Reflection" to see the results directly taking place as reflection and to review their own actions,**
  - (2)"Secondary loop Reflection" to review the strategies and goals that are the premise of their thinking,**
  - (3)"Tertiary loop Reflection" to extend consciousness to the intention and vision of our source at a deeper level.**
- 10. As a possible property of the belief system, three types of mind by Robert Kegan or seven types of action logic by Bill Torbert are introduced based on adult development theory.**

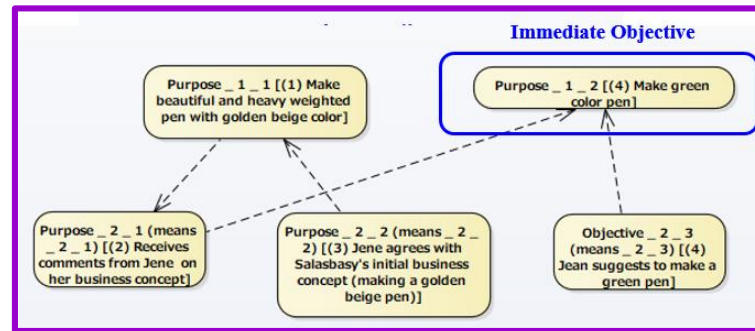


## 6. IRMDT (Integrated Reference Model for Realization of Dreamand Transformation)



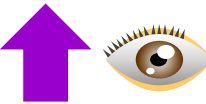
## **IV. Multilayered Visualization Representation for Dreaming and Transformation**

# 1. MVRDT (Visualization Model for human thought Process)

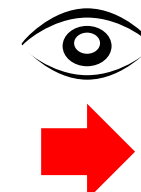
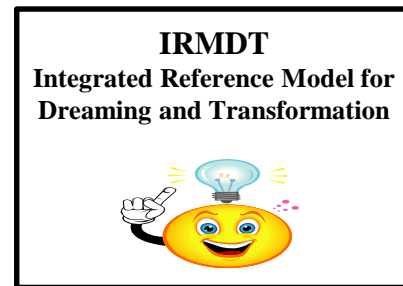


Objective and Means View

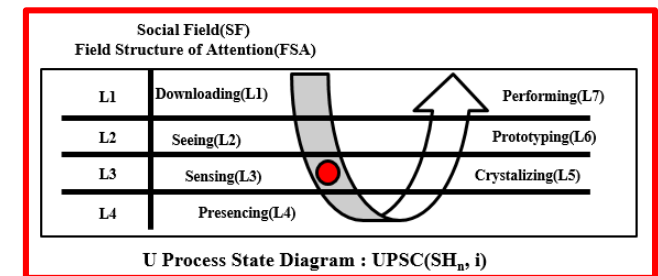
Objective and Means Point of View



Belief State Point of View

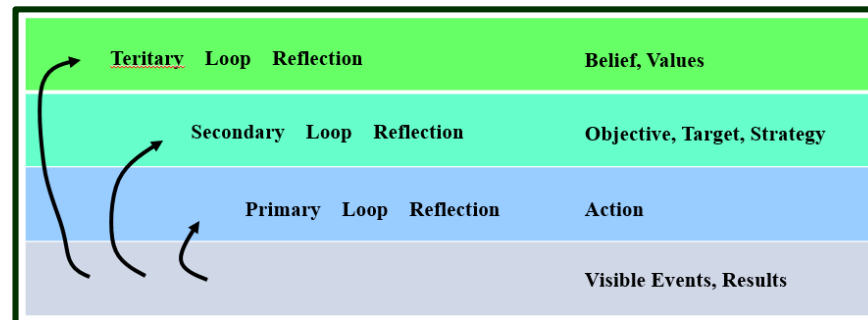


U Process State Point of View

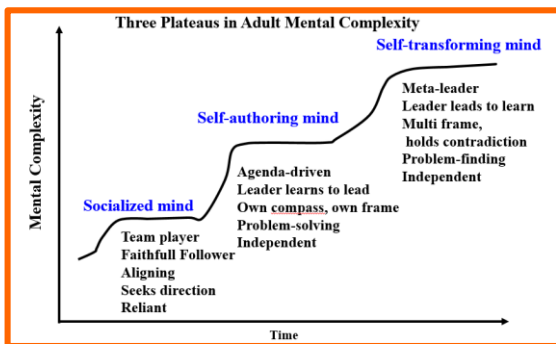


U Process State View

Reflection State Point of View



Reflection StateView



Belief State View

## 2. Architecture of MVRDT(1)

### MVRDT

#### Multilayerd Visualization Representation for Dreaming and Transformation

##### **【Upper Model】 (Scenario View)**

Describe the stakeholdere's thinking process, reflection process, multi-stakeholder dialogue with scenario sentences.

##### **【Lower Model】 (Multiple Views other than Scenario View)**

- Thinking target view
- Objective and means system view
- U process state view
- Entrepreneur's Behavior Logic View
- Reflection process view
- Belief System view
- Optionally select other view (view with viewpoint of interest)

Based on this representation, we visualize dynamic processes such as thought, emotion, reflection, belief system, U process state etc. from these multilayered viewpoints.

### 3. Description example of MVRDT (1)

#### Upper model

##### [Scene 5] Connect with your authentic self (i=5)

I continued dialogue with Mr. Nakanishi 's face for 6 hours. The first 2 hours were trying to convince Mr. Nakanishi about the reason why Mr. Nakanishi should be truncated. After continuing persuading about 4 hours, my own words began to hear frightfully. I realized that it was a word to convince myself what I did not want to do. Logically, it may be correct to truncate Mr. Nakanishi, but I realized that my soul does not want to do it. An answer came out when I thought that the organization I would like to do is an organization that gives priority to soul rather than rationality.

#### Lower model

i=5

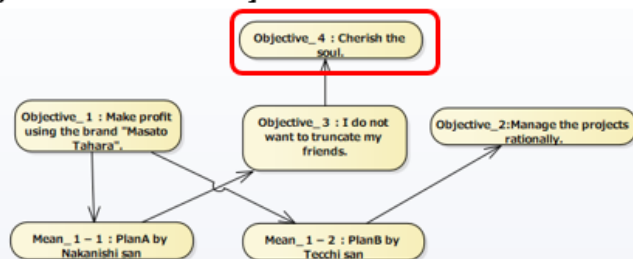
##### [Action Logic] [E3] Principle of Crazy-Quilt

Negotiate with all the participants who are willing to commit, and build a partnership without performing sophisticated competitive analysis.

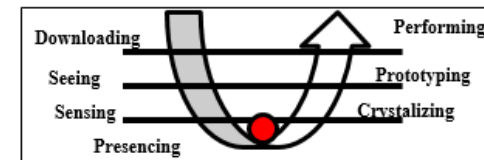
##### [Tertiary loop reflection]

Reflection on Belief System and Being

##### [Objective and means]



U Process Context =  
(5, UPS (Masato Tahara,5)=Presencing)



UPSC (Masato Tahara,5)

##### [Belief System]

- (1)To cause a social trend of self organization with a biological paradigm change.
- (2) I do not want to truncate my friends.
- (3) Cherish the soul.

### 3. Architecture of MVRDT (2)

1. Describe the thought / reflection process in the target time interval by dividing it into N scenes (time sections).

scene number  $i$

Time interval  $T_i = [t_i^s, t_i^e]$ ,  $i = 1, 2, \dots, N$  corresponding to scene number  $i$

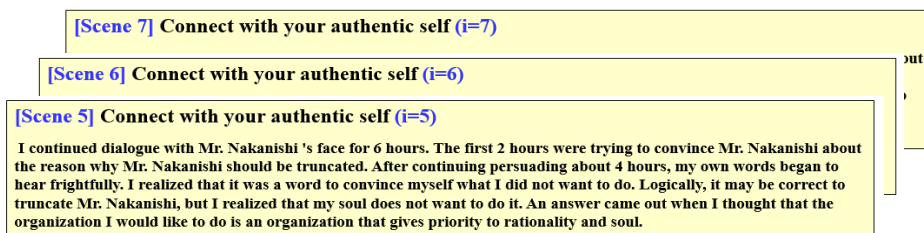
2. Assign a pair (upper model, lower model) to each scene number and describe each scene as follows.

(1) In the upper model, describe the thought / reflection process in the scenario.

(2) In the lower model, select the view of the lower model necessary for the scene and express it with the corresponding model.

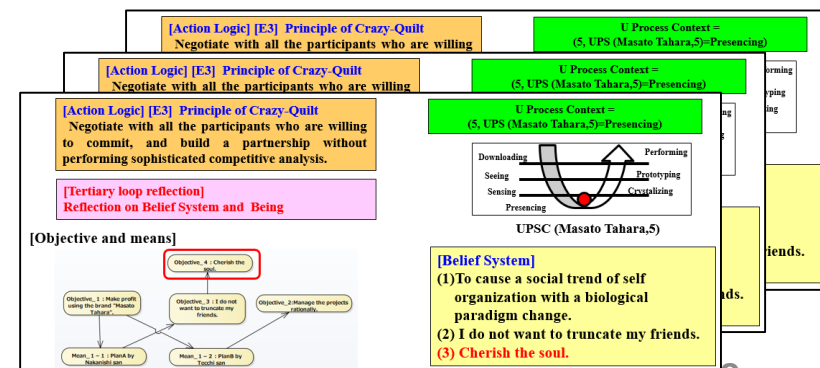
3. Using the above model, reproduce the thought / reflection process of the stakeholder in the order of the scene number like a picture-story show.

#### Upper model



$i=7$   
 $i=6$   
 $i=5$

#### Lower model



## 4. Case Study (Masato Tahara's Project Case) (1)

### Masato Tahara's Profile

- Self-organizing facilitator[45],[46],[47]
- Online Education Producer
- Representative of Flip Teaching(Reversing Teaching)
- Representative of "Fizzyovi" (Internet preparatory school of physics)

In 2005, he launched an internet pre-school for physics (Fizzyobi) .

With the encounter with the reverse teaching, he began to question the hierarchical social system and educational system.

He came across self-organization through dialogue.

Self-organization occurred in the online community , and it became possible to create circulation of collective intelligence → value creation → value proposition.

In order to share the experience, he started activities as self-organization facilitator.



[43],[44],[45],[46],[47]

## 4. Case Study (Masato Tahara's Project Case) (2)

### [Scine 4] Conflict with Nakanishi san(i=4)

At that time, I had the opportunity to travel by plane for 7 hours.

I did a work to interact with the physical symptoms that appear in the process work in the cabin.

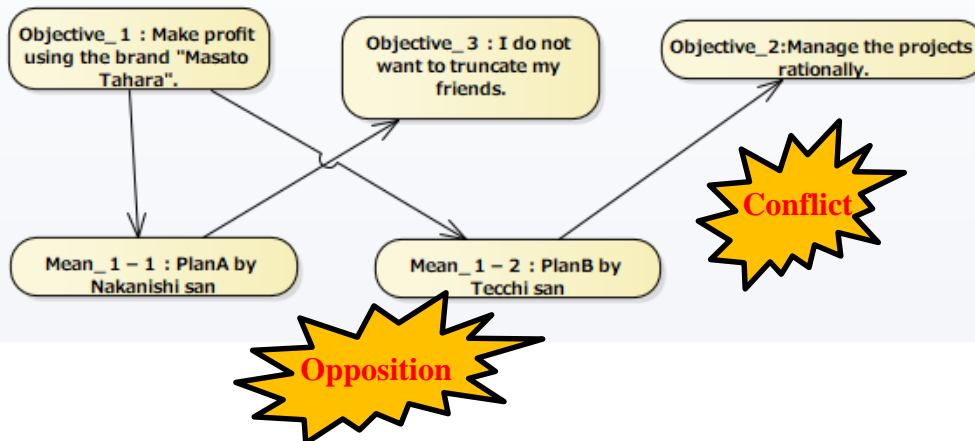
When I listened to what the numbness of the right arm talked to myself, an image of a serpent wrapped around the right arm came up, and the face of that serpent became Nakanishi.

#### [Action Logic] [E3] Principle of Crazy-Quilt

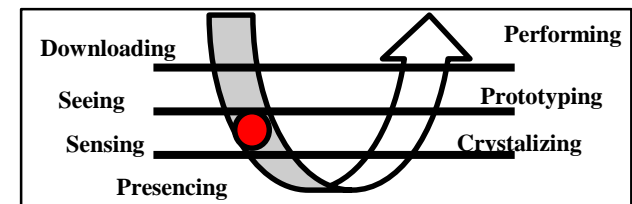
Negotiate with all the participants who are willing to commit, and build a partnership without performing sophisticated competitive analysis.

#### [Secondary loop reflection]

Reflection on Strategy and action logic



U Process Context =  
(1, UPS (Masato Tahara,1)=Sensing)



UPSC (Masato Tahara,1)





## 4. Case Study (Masato Tahara's Project Case) (3)

### [Scene 5] Connect with your authentic self (i=5)

I continued dialogue with Mr. Nakanishi 's face for 6 hours. The first 2 hours were trying to convince Mr. Nakanishi about the reason why Mr. Nakanishi should be truncated. After continuing persuading about 4 hours, my own words began to hear frightfully. I realized that it was a word to convince myself what I did not want to do. Logically, it may be correct to truncate Mr. Nakanishi, but I realized that my soul does not want to do it. An answer came out when I thought that the organization I would like to do is an organization that gives priority to soul rather than rationality.

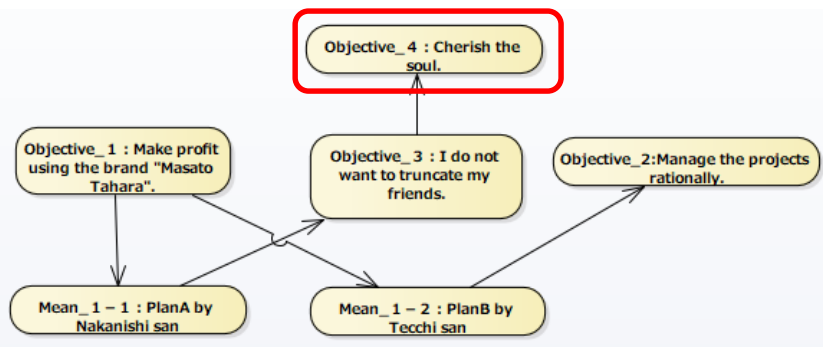
#### [Action Logic] [E3] Principle of Crazy-Quilt

Negotiate with all the participants who are willing to commit, and build a partnership without performing sophisticated competitive analysis.

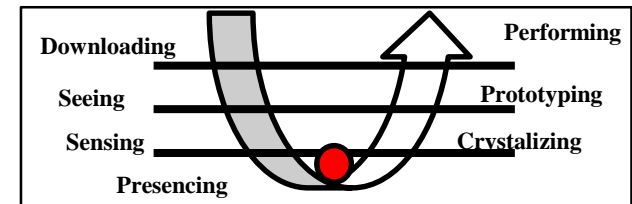
#### [Tertiary loop reflection]

Reflection on Belief System and Being

#### [Objective and means]



U Process Context =  
(5, UPS (Masato Tahara,5)=Presencing)



UPSC (Masato Tahara,5)

#### [Belief System]

- (1) To cause a social trend of self organization with a biological paradigm change.
- (2) I do not want to truncate my friends.
- (3) Cherish the soul.

[46]

## **V. Effects and application methods of the integrated reference model**

# **1. Effects and application methods of the integrated reference model (1)**

- 1. By being aware of what state we are in the reference model IRMDT, we can objectively look at ourselves calmly in whatever circumstances.**
- 2. Even we are in a panic, or in a mentally, physically extreme crisis situation, it is relatively easy to return to our own standing position (base state) by returning to our source with this reference model as a clue in the dark.**
- 3. We are relatively free to intentionally transition to a specific U process state by utilizing THORY U which is a technology of transformation.**
- 4. We can intentionally perform each level of three types of reflection such as primary level, secondary level, and tertiary level of reflection.**
- 5. By recognizing where we are in the reference model, we can select and apply an appropriate methodology according to the situation by referring to various methodologies for problem solving.**

# **1. Effects and application methods of the integrated reference model (2)**

- 5. Through these activities, we can constantly refine the system of these wisdom by updating the new knowledge and methodology as reference model and methodology for solving problems.**
- 6. By carefully describing the process of transformation using the proposed MVRDT, it can be used for reflection of individuals and teams, internal growth, sharing of process of transformation.**
- 7. This makes it possible to utilize it as a practical means of problem definition and problem solving related to people and organizations such as human resources development, coaching, facilitation, vision construction, organization development, and so forth.**

## **2. The next deployment**

- 1. In order to realize general purpose artificial intelligence and artificial consciousness, it is considered to be essential that the AI system has to have models for itself and environments in its internal world, to see them objectively, to evaluate the plural solutions which is generated by itself, and to reflect its thoughts and activities.**
- 2. Also, in the study of artificial consciousness, when fundamental reflection (for example, reflection of the first loop) is realized, it is considered to be needed to realize functions of more advanced secondary loop reflection and/or tertiary loop reflection in the thought process of a person's instantaneous time.**
- 3. In such a case, it can be expected that the thinking model including the reflection of the primary, secondary and tertiary loop proposed such as IRMDT, will be a candidate for requirements or properties to be satisfied by such advanced artificial consciousness.**

## **VI. Conclusion**

# 1. Conclusion

1. We outlined the methodologies for the realization and transformation of dreams.
2. We also proposed an integrated reference model IRMDT for overlooking and utilizing these as individuals, teams and organizations themselves.
3. we also proposed a visualization model called MVRDT, from multi-layered perspectives of U process, purpose and means system for realizing dream, reflection process, and belief system.
4. By using IRMDT and MVRDT in conjunction with various methodologies for problem solving, it is possible to calmly grasp the current situation of the person oneself, to appropriately select the methodology necessary for problem solving and transformation at the moment so that the dreams can be realized.
5. In addition, the significance of the proposed integrated reference model in the researches on general purpose artificial intelligence and artificial consciousness is also discussed.

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