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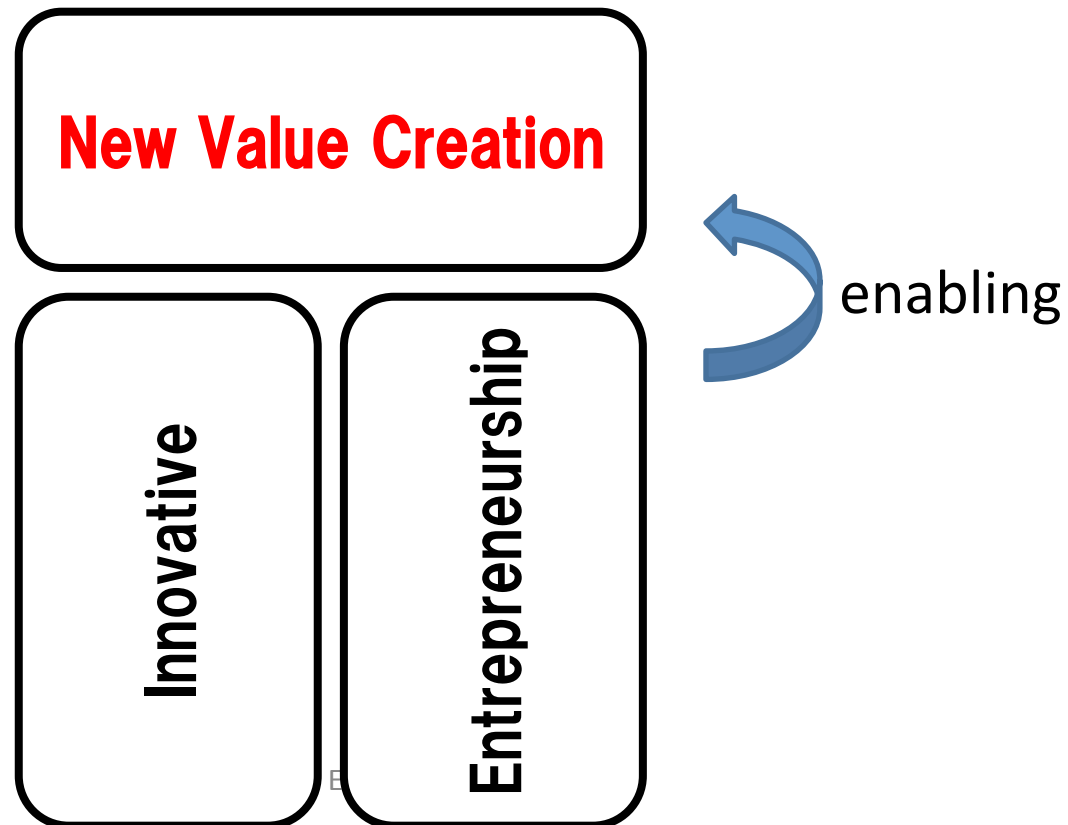
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EDGE Program funded by MEXT
Keio University
Global Innovator Acceleration Program
2015
Day 7 Design Process Exercise

Graduate School of System Design and Management
EDGE Program Team

Keio EDGE Program Goal

- It is to convert you to “**value creation**” **minded** person.
- Innovation and enterprise are both merely an approach.



Keio EDGE Program 2015 Intensive Workshop

September

October

20th

21st

22nd

23rd

27th

4th

5th

Kickoff
&
Innovative
Thinking

Design
Thinking

Systems
Thinking

(Global
Innovator
Forum)

Prototyping
and Testing

Business
Synthesis

Design
Process
Exercise

to think innovative

to think human centered

to think as a system

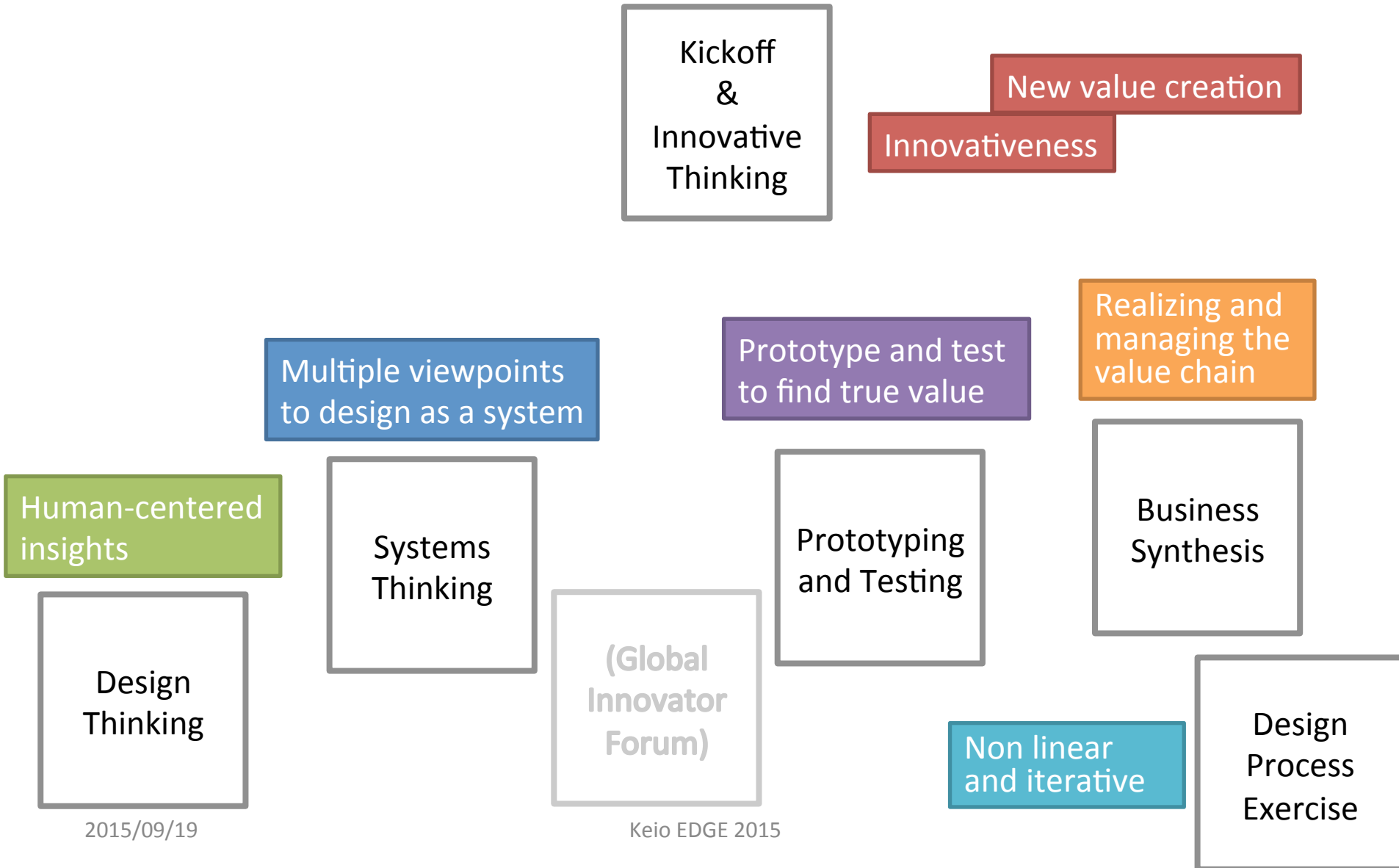
“Innovatorship”

do while thinking
think while doing

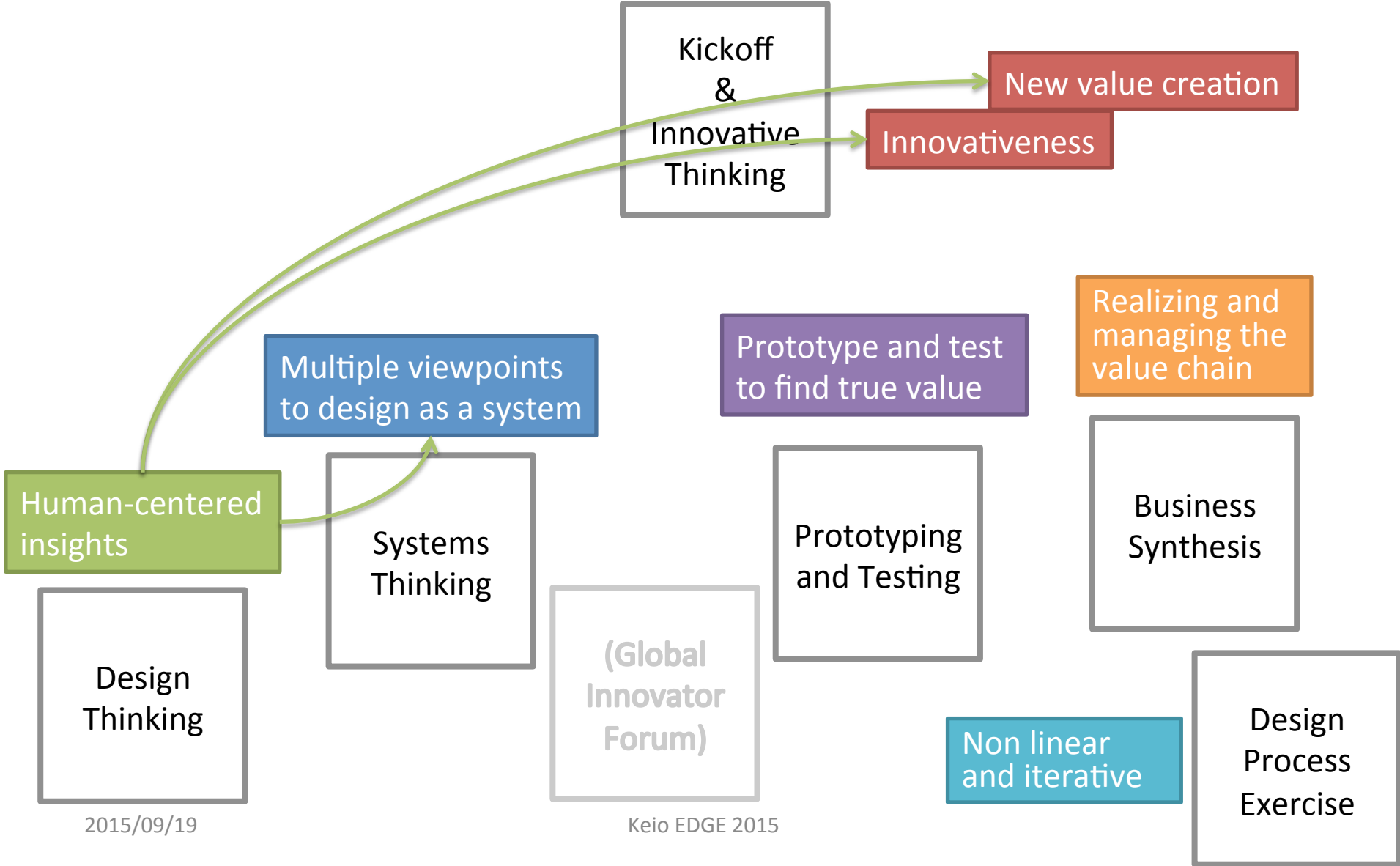
to design a business

to tackle innovative
design challenge

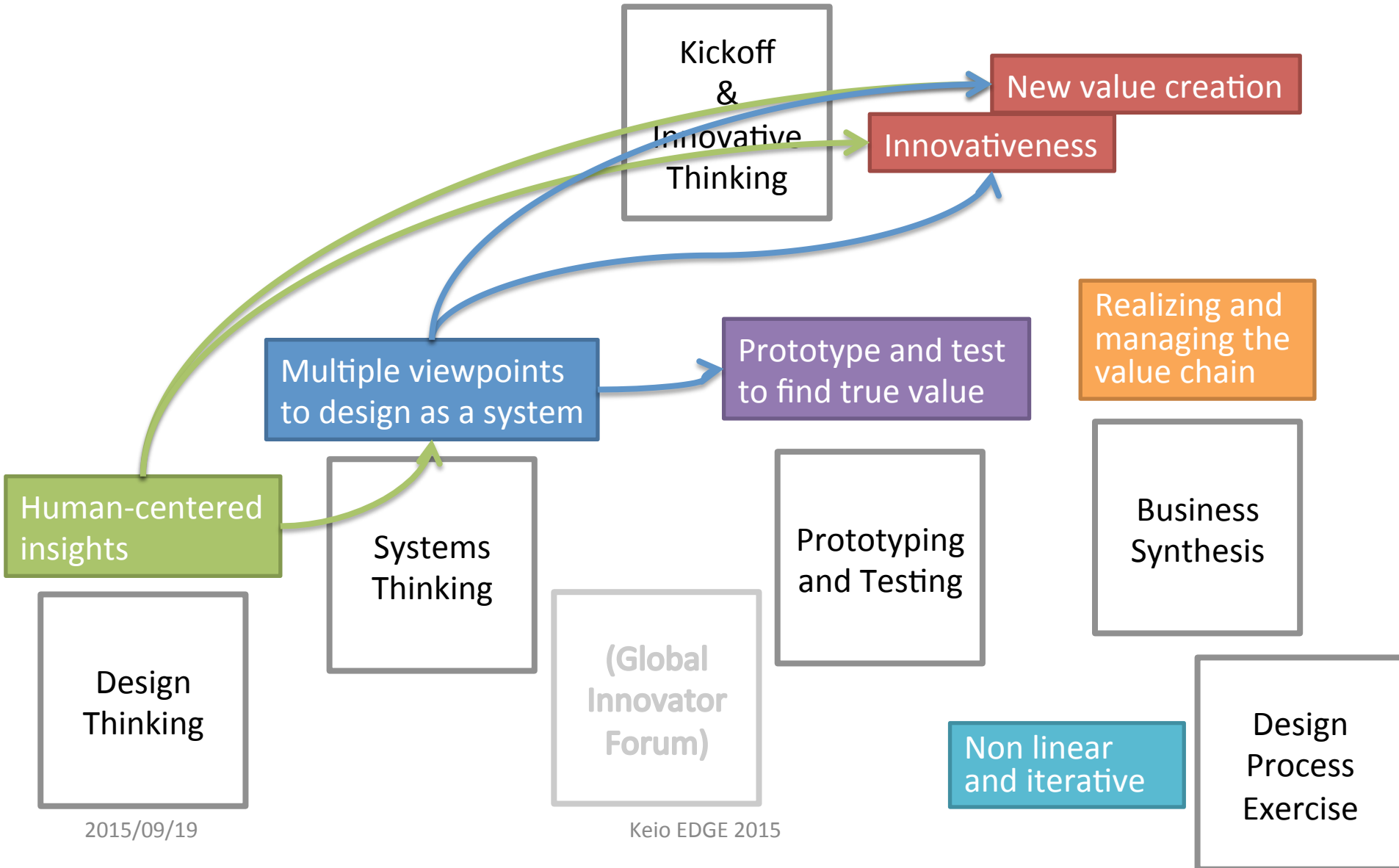
Keio EDGE: SDM Secret Recipe



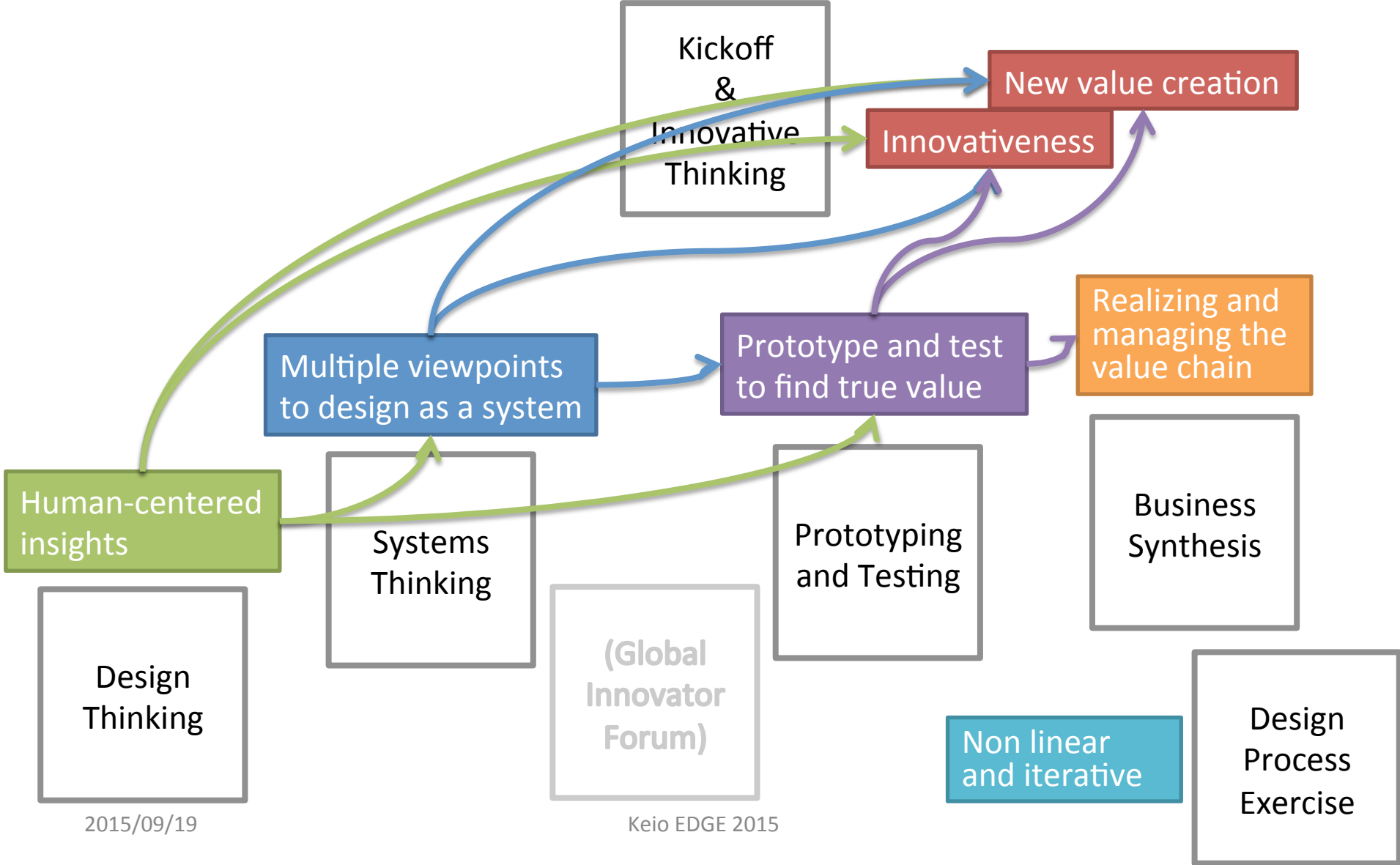
Keio EDGE: SDM Secret Recipe



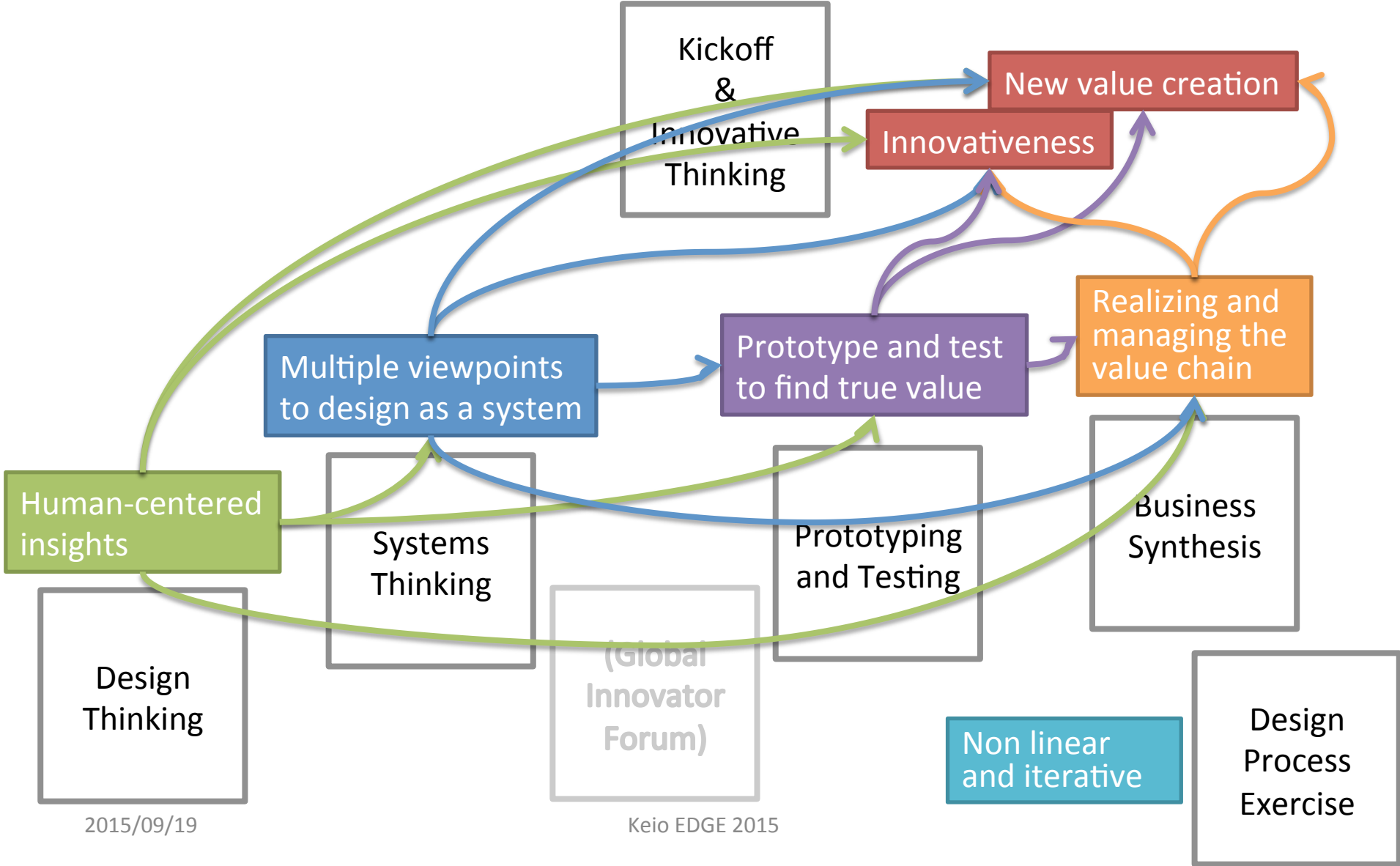
Keio EDGE: SDM Secret Recipe



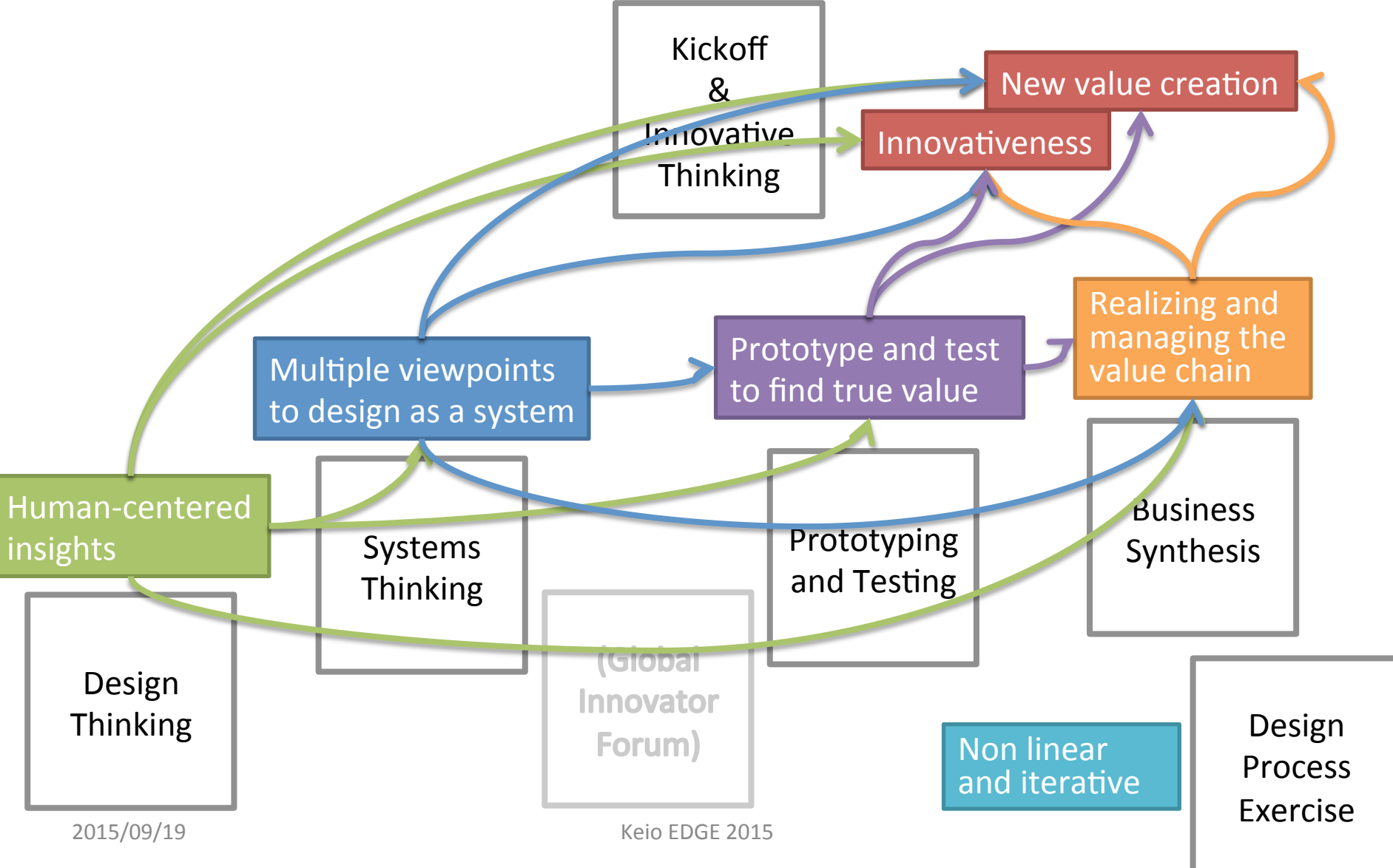
Keio EDGE: SDM Secret Recipe



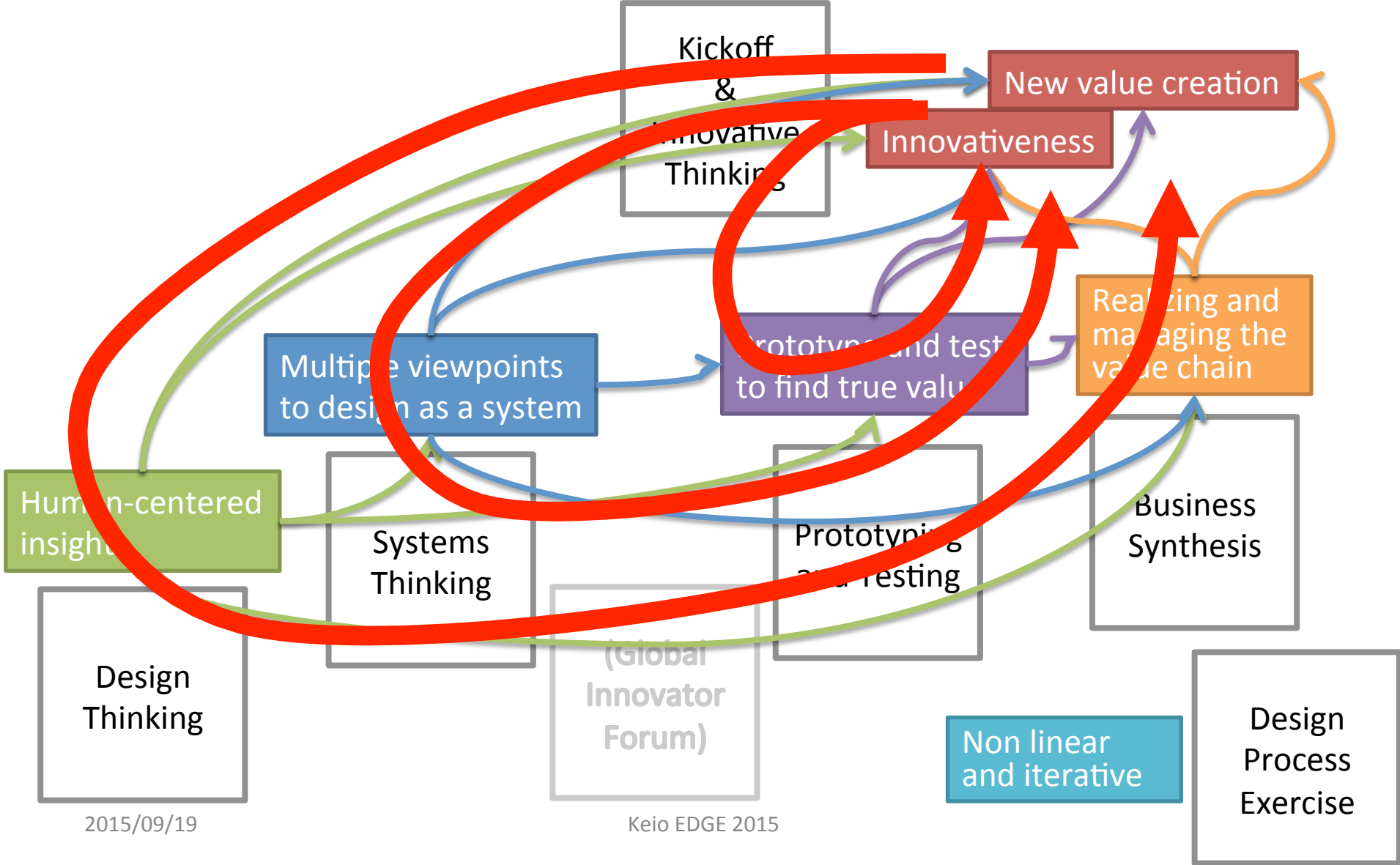
Keio EDGE: SDM Secret Recipe



Keio EDGE: SDM Secret Recipe



Keio EDGE: SDM Secret Recipe



New Value Creation Process: “Big Picture”

- You will work on this at PBL.

problem
definition

design
principle

functional
design

physical
design

use-case

value
proposi-
tion

unit
econo-
mics

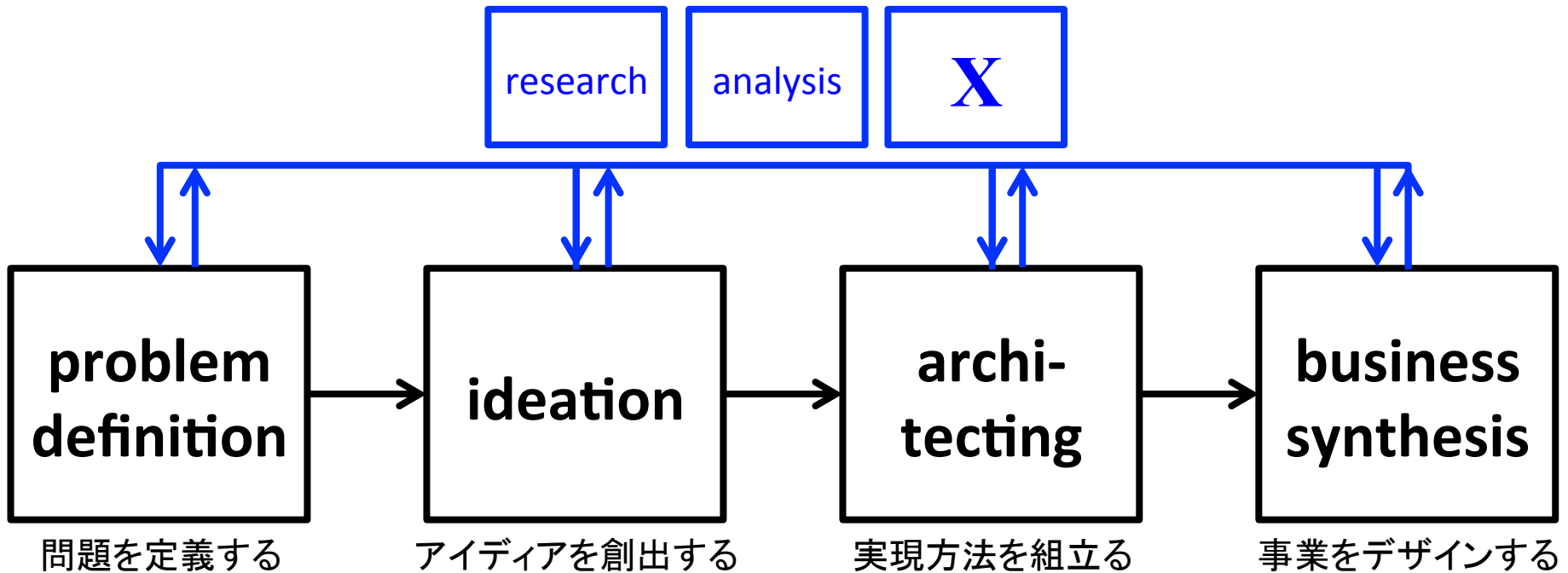
marketa-
bility

profita-
bility

Keio EDGE Program

Day 7 Design Process Exercise

Basic Framework



Problem Definition

- It can be said that it is more difficult to find an innovative idea or solution for **an *ordinary problem or question***.
 - ex. *How can we improve the automobile gas mileage?*
- Define your problem or question so it is ***unfamiliar but interesting*** and also ***important***.
 - ex. *How can we improve the accumulated gas mileage of a person and his/her cars in a time frame of 10 years?*
- Try to find ***innovative problem space*** that is fascinating and worth investing time to explore.
- This is also called “**reframing**” a problem.

[Innovative Problem Definition Example] **KOKUYO Harinacs (staple-free stapler)**



https://www.kokuyo.com/en/corporateprofile/history/episode_22.html

- **How might we “staple” documents without using staples?**
- The manufacturer was **not stuck with their bias for conventional stapler** and were able to define an innovative problem to solve.
- The question seems to be crazy in the beginning, however, the manufacturer did not stop expanding their solution space.

【例】コクヨ 針なしステープラー ハリナックス



<http://www.kokuyo-st.co.jp/stationery/sl-stapler/handy/handy10.html>

- **針なしで紙を留められないか？**という課題の定義がホッチキスの常識に囚われていない。
- 当たり前前の商品をさらに一歩進めて考えてみようとした**課題意識**が秀逸。
- 馬鹿げている、と言って捨ててしまわなかった検討過程が面白い。

Problem Definition: Approach

- Design Thinking approach
 - Fieldwork
 - Observation
 - Interview
 - Empathize
 - Prototyping and testing
 - ...
- Systems Thinking approach
 - Structurize and visualize from multiple viewpoints
 - CVCA
 - Causal Loop Diagram
 - Value Graph
 - Functional and Physical Architecture
 - ...

Find interesting insight and define problem.

Problem Definition: Approach

- Logical Thinking approach
- Statistical approach
- History search
- Literature search
- Google search
- Data analysis
- Expert interviews
- **Your domain knowledge and network!**
- ...

Find interesting insight and define problem.

Problem Definition

- Try to find many **interesting insights** and **questions**.
- Gather those information and organize, structurize, and visualize to ***make sense out of them***.
- Then, try to put your **problem definition into a sentence**. No need to focus on just one sentence, you can work on multiple sentences simultaneously if you want.
- You can use “**How might we...?**” format or any other question form.
- Choose your **favorite problem definition**.

Design Process Exercise: Context

- You are a team to design a **value providing solution** around the desk for following person and condition.
- **He/she is trying to read an article written in foreign language.**
- **He/she sometimes wants to highlight the article with multiple markers.**
- **He/she sometimes wants to look up in Google and write notes on Evernote with the laptop sitting in front of him/her.**

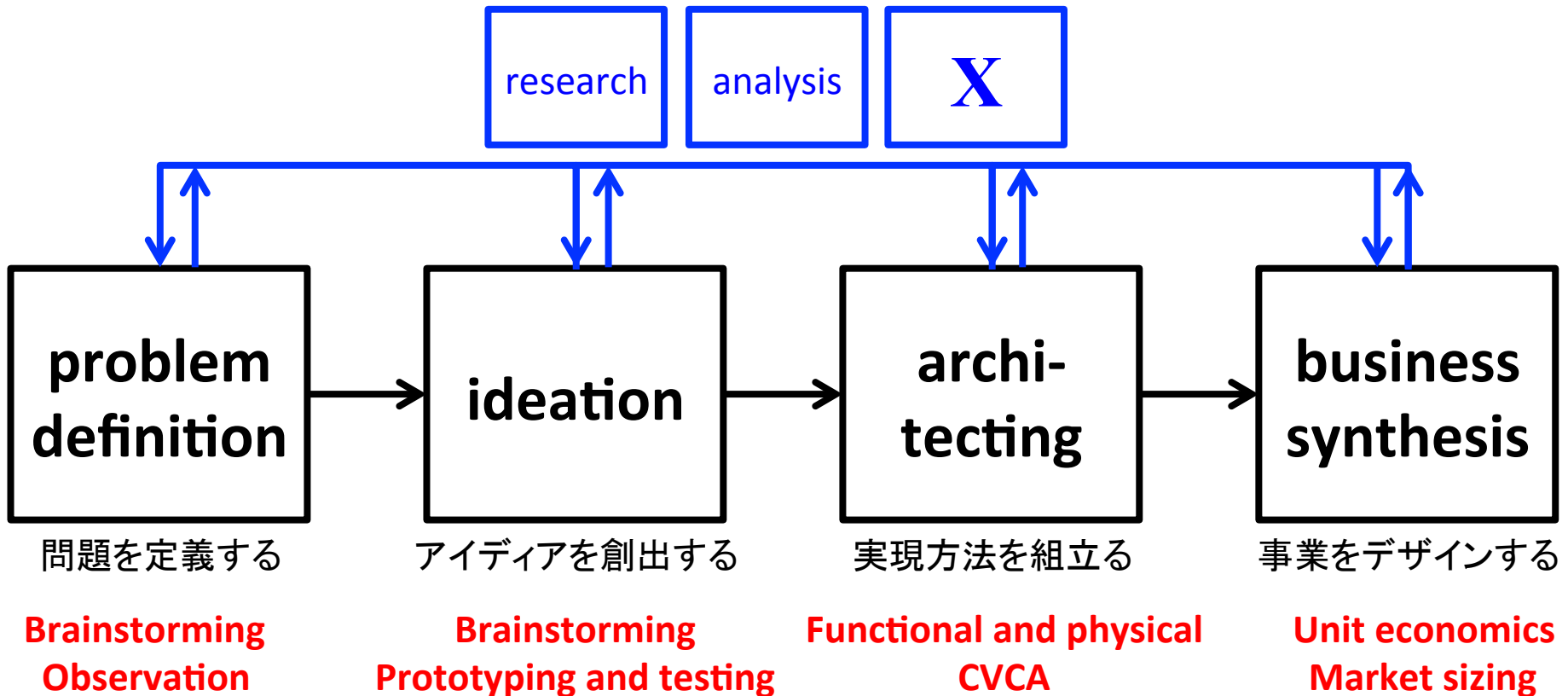
Design Process Exercise: Context

- Your providing value can be
 - pain reliever(s)
 - gain creator(s)
 - or their combination.
- You can imagine someone like *me* as your target.
 - always busy
 - not a student, a professional
 - reading foreign language article is not so much of a problem but not a piece of cake
 - also works late at night
 - good at computer and other gadgets

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Day 7 Design Process Exercise

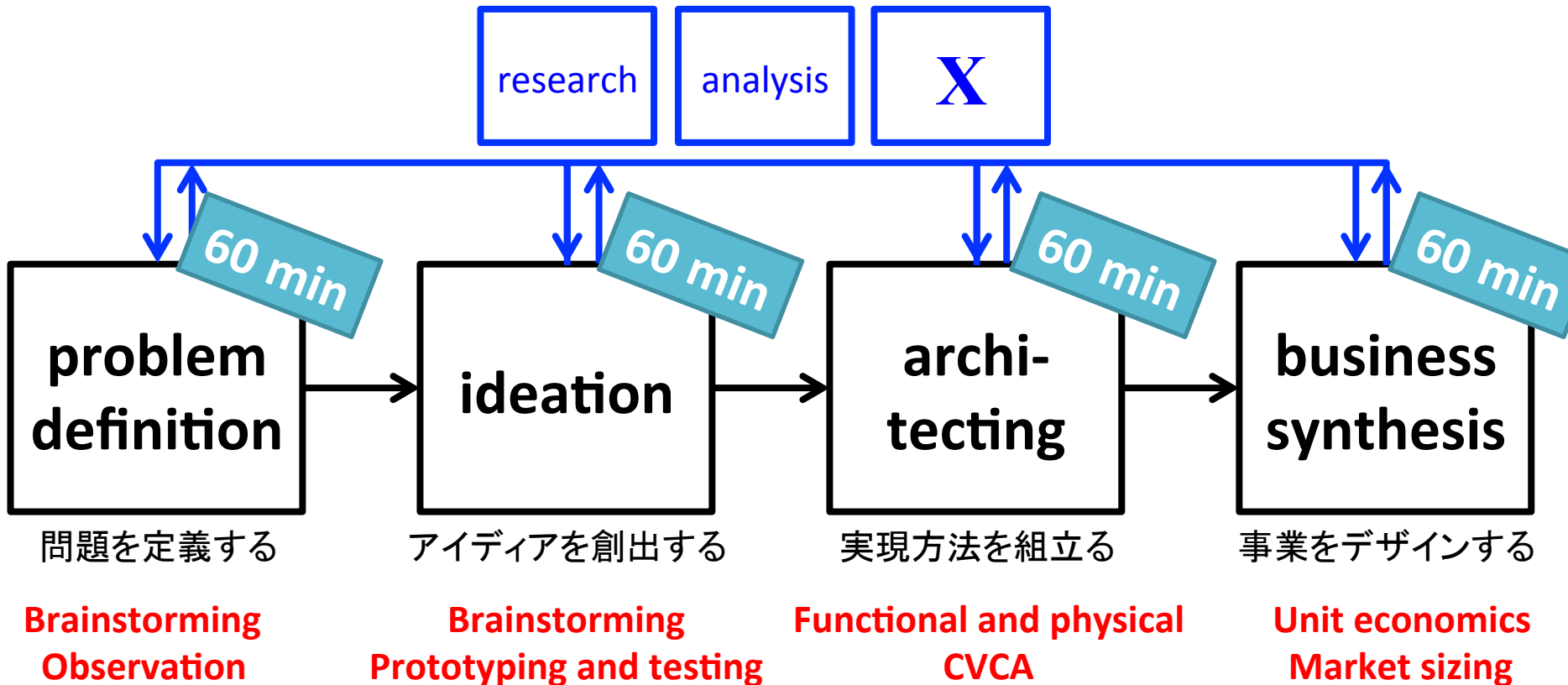
Basic Framework and Suggested Approaches



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Day 7 Design Process Exercise

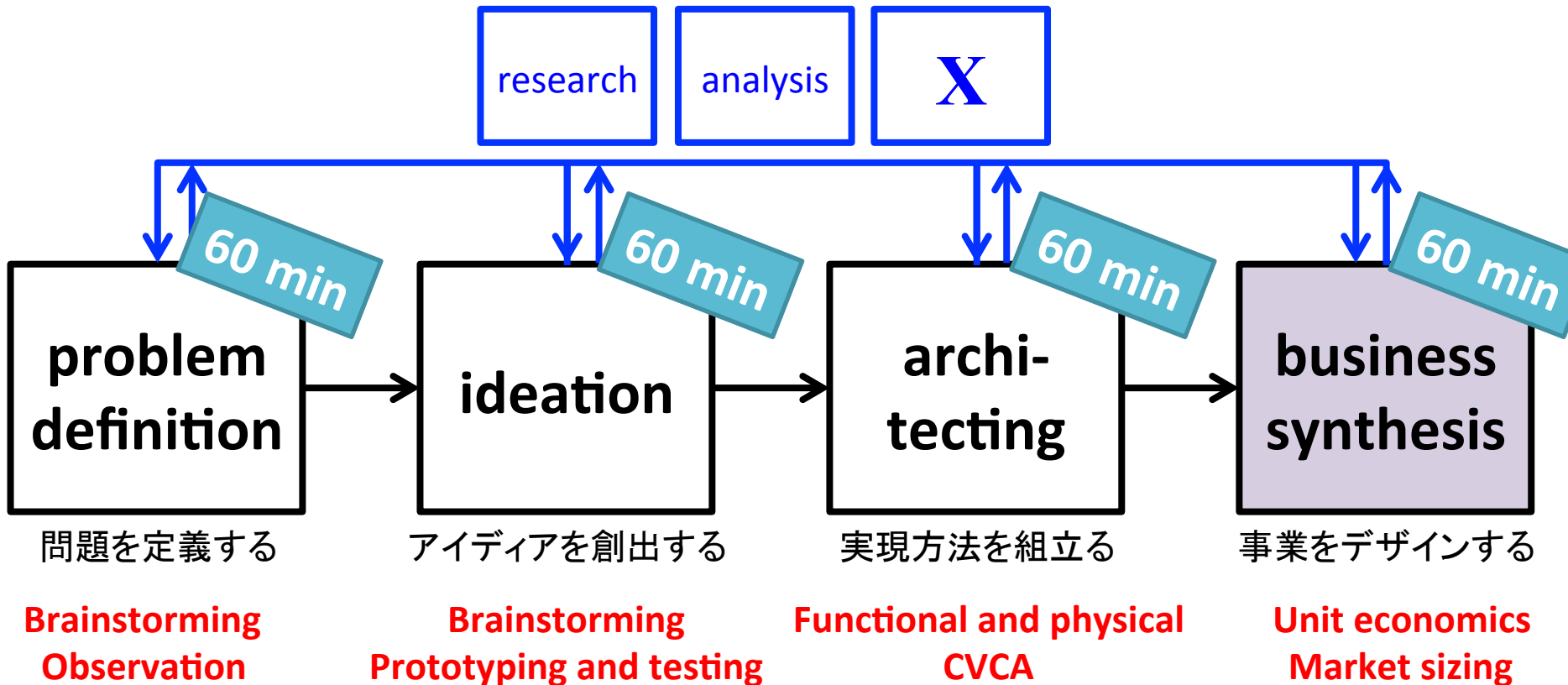
Basic Framework and Suggested Approaches



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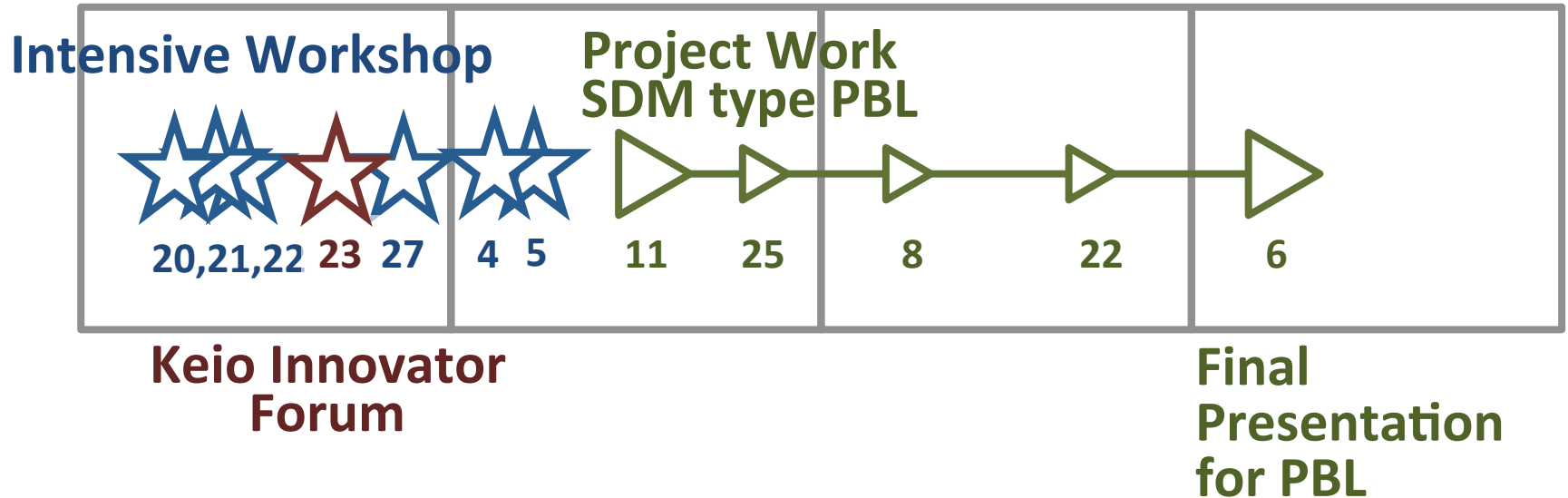
Day 7 Design Process Exercise

Basic Framework and Suggested Approaches



Program Schedule 2015

September October November December



7-day Intensive Workshop is to get you ready with right equipment.
Rest is PBL with mentoring and feedback.
You will make several presentations before the final presentation on December 6th.