WHAT SHOULD THE GOVERNMENT LEARN FROM DESIGN THINKING?

HOW TO DEAL WITH COMPLEX AND COMPICATED PROBLEMS USING EXPERIMETNATION!

INTRODUCTION

In the Netherlands, one of the government bodies solving complex problems is the Netherlands Enterprise Agency ('Rijksdienst Voor Ondernemers'; RVO). Within RVO, X-lab is developing new ways of working to be better prepared to deal with these complex problems. In short, X-lab is RVO's internal innovation lab that creates and collects different frameworks, methods and tools to support policy writers when they solve problems. They do this by co-creation, developing frameworks, experimenting and setting up processes.

In practice it has been noted by X-lab that innovative ideas are being created with the help of X-lab, but not always successfully carried out in practice. Hence, X-lab is working on improving its methods and processes. A new method they are currently developing is flow design, which is seen as a good fit to solve the present complex problems. However, X-lab encounters problems scaling up the flow design method, therefore it is not practiced by many. I was approached to further investigate this problem.

While investigating the problem, I noticed there are several underlying problems within flow design that do not allow flow design to live up to its full potential to deal with complex problems. This is mainly because after a flow design session no clear actions to solve the problem are designed after analysing the problem. Based on this insight, I decided to shift the focus of this research towards these underlying problems. Resulting in the following aim of this research: The aim of this research is to deliver a tangible product that enables X-lab to better deal with complex problems, supported by recommendations that are based on a thorough analysis of X-lab and flow design. Since I am a designer experienced in design thinking, the following research question was drafted: **Where and how can design thinking support the trajectory of flow design within X-lab RVO?**
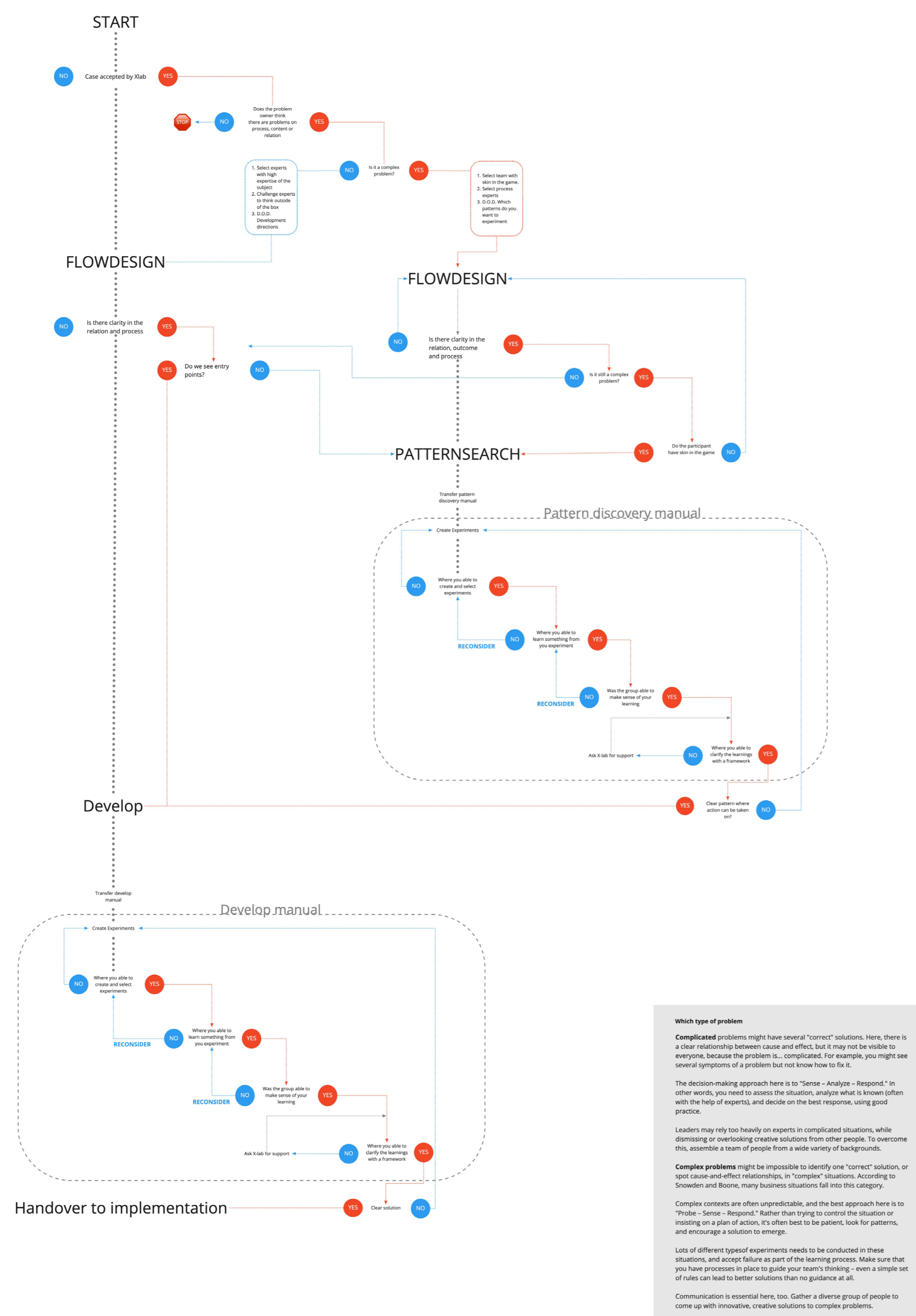
THE SUPPORT OF DESIGN THINKING

Based on Tuckmann (1972) and Snowden (2007) and interviews it can be concluded that the full potential of the current flow design process is not met. First of all, because in theory the potential is higher when all steps of the two theories are completed, and secondly, because flow design has no tangible outcome and therefore no clear actions to solve the problem are designed after analysing the problem. However, the final goal is to solve the problem, consequently the current flow design process could be improved.

So, flow design doesn't perform all the steps of Tuckmann's model of group development and also not of Snowden's dealing with complex/complicated problems model. The missing steps in flow design are Tuckmann's norming and performing steps and Snowden's probe, sense and response steps for complex problems, and Snowden's sense, analyse and response steps for complicated problems. The product portfolio was designed in such a way that it facilitates that all of Snowden's and Tuckmann's steps are performed. Furthermore, the validation showed that the product portfolio indeed delivered clear actions to solve the problem. Since, the product portfolio has been created with the use of design thinking, namely the methods of the double diamond and frame creation are being applied, I conclude design thinking supports the trajectory of flow design.

NO IDEA IS BORN PERFECT

Why is it important to experiment. When implementing ideas directly or waiting until it is ready before testing, you overlook one of the first principles learned as a designer, which is "no idea is born perfect." Often ideas are based upon assumptions that need to be refined and improved. When going directly to implementation or validation, there is little room for failure as resources have already been invested (Leurs & Roberts, Playbook for innovation learning 2018) see below. On the other hand, prototyping helps to identify and test assumptions in an early stage without spending a lot of resources, allowing there to be more room for failure. For example, building a paper scenario and testing this with the user may cost you only a few euros, whereas running a full-scale test will cost a lot more and it might lead to the same outcome.

DECISION-MAKING CANVAS

Figure 1. Decision making canvas

SUPPORTED BY TWO MANUALS

In this sectio I will described the outcome of this thesis a decision-making canvas, a pattern discovery manual and a development manual.
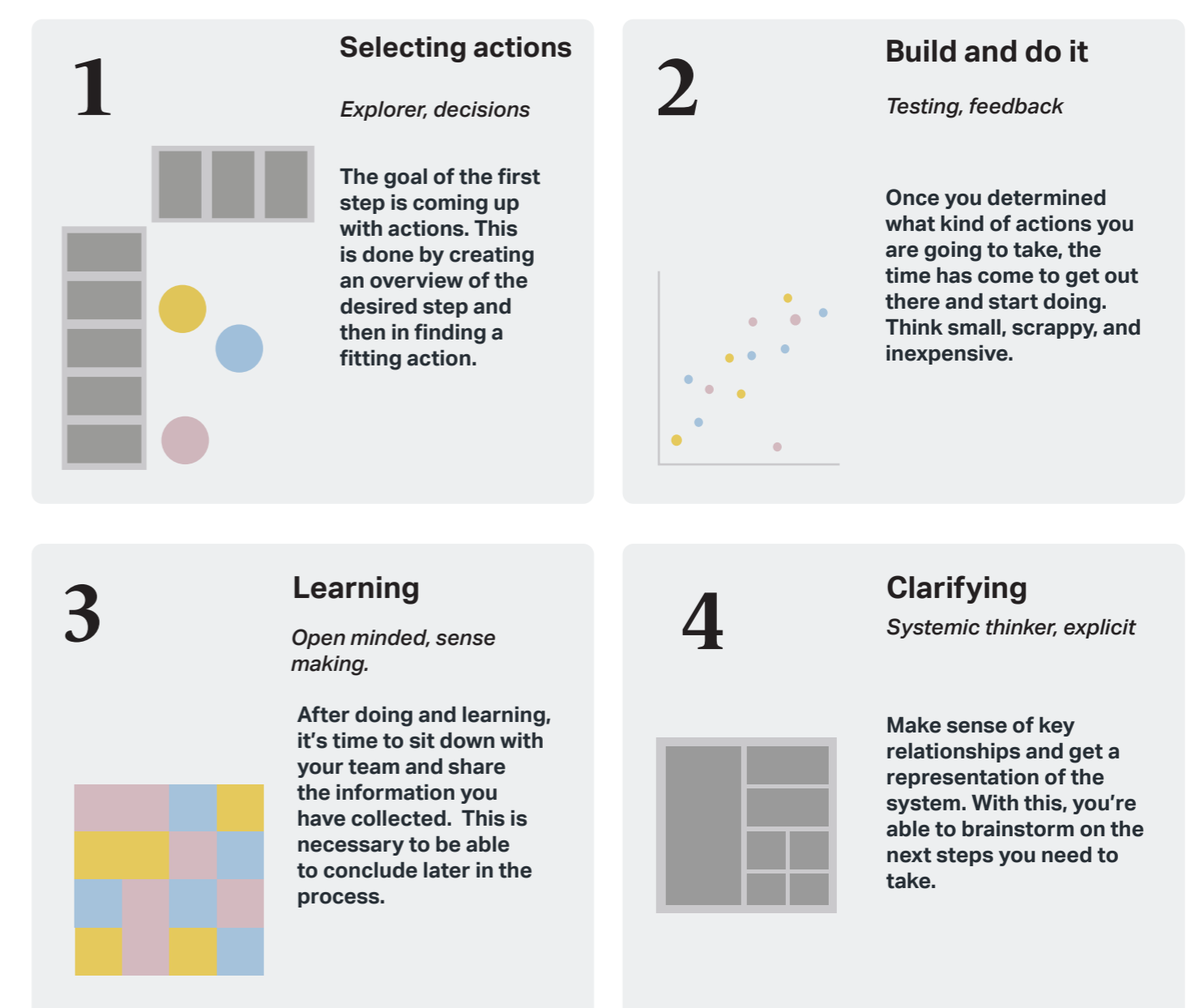
Decision-making canvas

This canvas is meant for flow designers and case owners to have clarity in their process. This is done by making explicit which choices there are and what is needed to move on. This canvas starts when a case is entered by a case owner or an X-lab employee and finishes when the product is ready to go towards implementation.

This canvas helps you decide if you are dealing with a complex or complicated problem. If you are dealing with a complicated problem, the decision-making canvas will guide you to use the development manual. When you are dealing with a complex problem, the canvas will guide you first to use the pattern discovery manual and after clear patterns are found it will guide you to use the development manual.

In the end, once completed the decision-making canvas, you will end with a (partly) filled in action model.

Figure 2. Manual steps

1 Selecting actions

Explorer, decisions

The goal of the first step is coming up with actions. This is done by creating an overview of the desired step and then in finding a fitting action.

2 Build and do it

Testing, feedback

Once you determined what kind of actions you are going to take, the time has come to get out there and start doing. Think small, scrappy, and inexpensive.

3 Learning

Open minded, sense making.

After doing and learning, it's time to sit down with your team and share the information you have collected. This is necessary to conclude later in the process.

4 Clarifying

Systemic thinker, explicit

Make sense of key relationships and get a representation of the system. With this, you're able to brainstorm on the next steps you need to take.

Loek Dekker
Adapting the processes of a public sector innovation lab with the help of design thinking
31-08-2021
Strategic Product Design

Committee
Dr.Ir Tromp
A.Kim

Company
J. Jenniskens
S. Panacho

Faculty of Industrial Design Engineering

Delft University of Technology