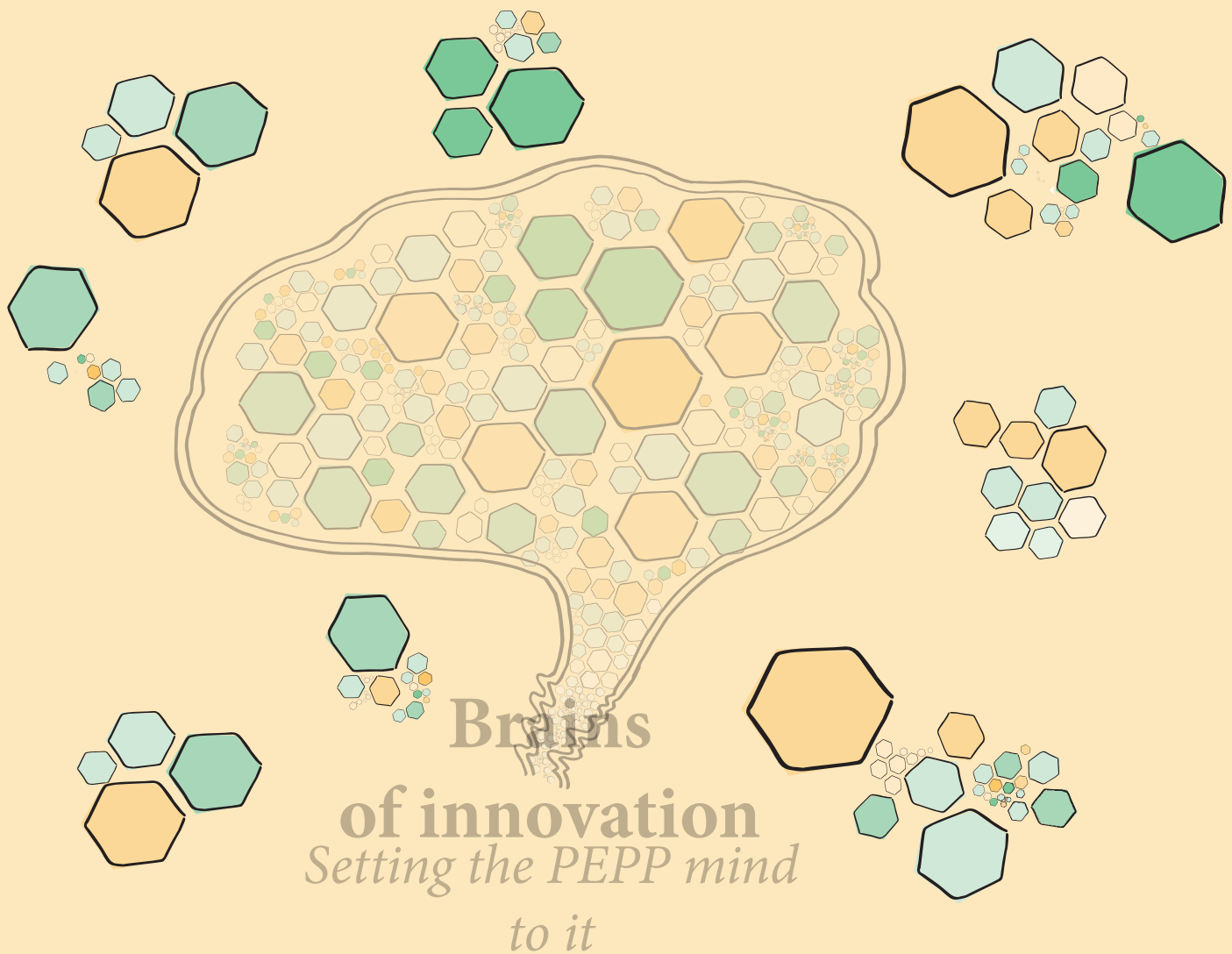


A Graduation story - Luc van Wanroij



Appendix

What's more?

Appendix

The part of the appendices is split in two sections. Why they are put in the appendix? Because they have been part of my story, but don't have to be literally in the story.

- A. Learning objectives
- B. Culture study from the Harvard Business Review
- C. Approach interview setup
- D. Explanation research to structures of the framework
- E. Interview findings - information and lists of 25
- F. Overview interviewees - observations
- G. Overview interviewees - validations
- H. Validation survey and outcome
- I. Involving students with Area52

A. Learning objectives

Learning for me is pretty important. It means trying, taking risks and reflecting. Both during, as well as after a process, it is expect from myself to constantly reflect on things done. Hence, I find it important to formulate some personal learning objectives as anchor points to reflect upon at the end of the story.

Ask the right questions

There are some things that attract me with this assignment why I think it is a very interesting opportunity. On paper, it is not the most 'exciting assignment'; no blockchain, Artificial Intelligence or machine learning. However, in real life I think this assignment is more relevant than ever. First you need to have your people ready, in order to make technology useful. The challenge for me is that success of this assignment depends on how a) I Am able to collect valuable insights from the employees (can I get them to talk, also about latent needs?) b) Translate these insights into designing a method and c) I am able to validate this method, can it work?

My learning objective here is that I want to better learn to observe and ask the right questions. Not jumping too fast to conclusions, but constantly asking 'why things are happening or said'.

Deep dive in the unknown

I found that what triggers me most are people who need to do it. Innovation is about people and so it depends on them if it works, or not. I chose to do this for PON. The kind of business they run is a kind of far-from-my-bed-show. I don't know a lot about marine technology, complicated engines and so on. However, this makes it more interesting and challenging for me. I want to test myself to the fullest, If I am able to design new methods in complete new industries. That is what I see as a true challenge, and that is what a graduation project is about.

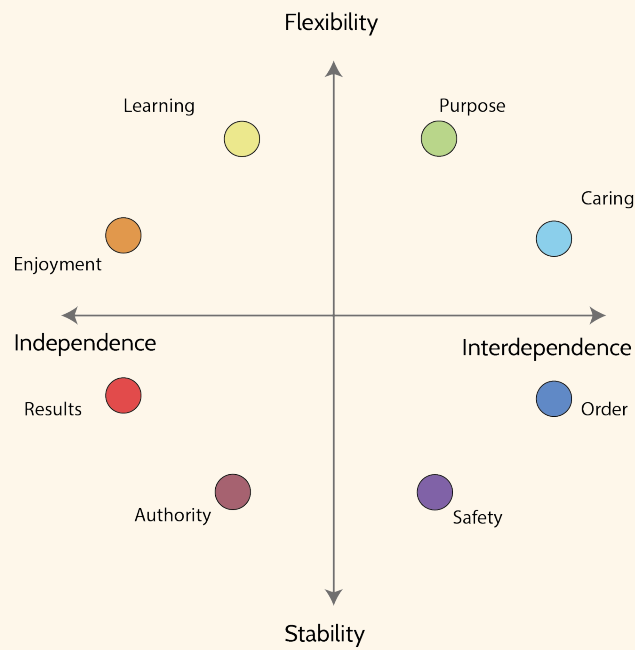
Structure the brain - Fuzzy to concrete to focus

I like to think a lot, inside my head. Mostly the thoughts are unstructured and bringing it to a coherent story, is often missing. In a study context you have other students who are able to do this in a better way. Both through writing or visualizing. I will always be more of a thinker, but since I have to do this project mostly on my own, I need to learn to structure my thoughts so they become clear to all the stakeholders dealing with. A result, will be that I can go from fuzzy to concrete to focus. Meaning that in order to get people to understand what is going on, I have to translate fuzzy thoughts into concrete language.

B. Culture study from the Harvard Business Review

Quantitative research- A culture study

In order to gain a great breadth of knowledge, a survey was used in the first part of the process. This survey has been gained from an issue in the Harvard Business Review (2018). Researchers stated that in order to understand the culture of an organisation, it requires to determine where it can be placed within two dimensions.



First there are people interactions. They present a spectrum on which the orientation towards people can fall, distinguishing it either being highly independent, or highly interdependent.

Independent means that a company values autonomy, individual action and competition. Interdependent means that the company values integration, relationships and group effort.

Second is the response to change. On one side of the spectrum there is a high focus on flexibility. This is characterized with a culture that favors adaptability and receptiveness to change. The other side is the opposite of flexibility, namely stability. This is about consistency, predictability and maintaining the status quo. From these dimensions, the researchers identified eight styles that can be applied to an organisational culture.

In brief:

Caring is about collaboration, mutual trust and relationships.

Purpose is about compassion, tolerance and the cause of the organisation

Learning is about exploration, creativity and project dynamics

Enjoyment is about fun and excitement

Results is about achievements, winning and being a meritocracy

Authority is about strength, boldness, competition

Safety is about planning, caution, predictability

Order is about structure, stability, a smoothly running machine

Goal of the survey will be to provide an extra quantitative layer of insights to the qualitative observations.

Survey 'Culture Pon Equipment Pon Power' (English)

Dear reader,

First, thanks for cooperating in my research.

My name is Luc van Wanroij and I am a graduation student on the topic of 'Innovation management' at the faculty of Industrial Design Engineering at the Technical University of Delft.

Innovation, hear and see it a lot today. The word or at least an expression of it. It is also important for the PEPP group that innovative initiatives are started. In order to keep this engine constantly running, Area52 was started a while ago.

For my graduation, I am working on the design of an innovation framework for Pon Power Nederland and Pon Equipment Norway, which eventually could also be used in other OPCOs of the group.

Innovation is created by- and for people in the core. I believe that it is important to understand what kind of working- and social culture there is within the organisation and I want to research this with this short questionnaire.

Goal of this short survey is to look at your perspective of the organisational culture of your company & the group.

I made some short questions of which I would like to ask you to rate, on a scale from 1-5, how well the statements fit the organisation.

1= Not good at all 2= Not really good 3= Just a little 4= Rather good 5=Very good

It only takes you two minutes and you will help me a lot!

If you are interested in the outcome, you can also leave your mail.

Thanks again!

Luc van Wanroij

1. What is your function title within the organisation?

2. What OPCO are you working for?

The organisation is focused on:

How are the following statements describe this question:

1= Not good at all 2= Not really good 3= Just a little 4= Rather good 5=Very good

3. Collaboration and mutual trust

Markeer slechts één ovaal.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. Compassion and tolerance

Markeer slechts één ovaal.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. Exploration and creativity

Markeer slechts één ovaal.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. Fun and excitement

Markeer slechts één ovaal.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. Achievement and winning

Markeer slechts één ovaal.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. Strength and boldness*Markeer slechts één ovaal.*

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. Planning and caution*Markeer slechts één ovaal.*

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. Structure and stability*Markeer slechts één ovaal.*

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. Structure and stability*Markeer slechts één ovaal.*

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The organization feels like:

How are the following statements describe this question:

1= Not good at all 2= Niet really good 3= Just a little 4= Rather good 5=Very good

12. A big family*Markeer slechts één ovaal.*

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. An idealistic community or cause*Markeer slechts één ovaal.*

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

14. A dynamic project*Markeer slechts één ovaal.*

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

15. A celebration*Markeer slechts één ovaal.*

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

16. A meritocracy*Markeer slechts één ovaal.*

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

17. A competitive arena*Markeer slechts één ovaal.*

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18. A meticulously planned operation*Markeer slechts één ovaal.*

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

19. A smoothly running machine*Markeer slechts één ovaal.*

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

20. If you are interested in the result of this survey, please leave your mail here:

Mogelijk gemaakt door



Results of the survey

Results PEPP group						
Number of responses	240					
Number of email requests	107					
	Mean Focus organisation	Rank	Mean feeling organisation	Rank	Total (out of 10)	Total Rank
Caring	3,49	2	3,00	3	6,49	4
Purpose	3,39	4	2,71	5	6,10	5
Learning	3,21	5	3,46	1	6,67	2
Enjoyment	3,19	6	2,48	8	5,67	8
Results	4,08	1	2,83	4	6,91	1
Authority	3,41	3	3,18	2	6,59	3
Safety	3,14	7	2,63	6	5,77	6
Order	3,12	8	2,55	7	5,68	7

Stability score	24,941	3
Flexibility score	24,931	2
Independence score	25,838	1
Interdependence score	24,034	4

Pon Equipment Norway						
Number of responses	104					
	Mean Focus organisation	Rank	Mean feeling organisation	Rank	Total (out of 10)	Total Rank
Caring	3,91	3	3,70	2	7,62	1
Purpose	4,00	1	3,42	4	7,42	3
Learning	3,79	5	3,56	3	7,35	4
Enjoyment	3,78	6	3,15	8	6,92	6
Results	3,95	2	3,31	5	7,27	5
Authority	3,84	4	3,71	1	7,55	2
Safety	3,29	8	3,24	6	6,53	8
Order	3,39	7	3,17	7	6,56	7

Stability score	27,895	3
Flexibility score	29,307	2
Independence score	29,082	1
Interdependence score	28,120	4

Sitech						
Number of responses	13					
	Mean Focus organisation	Rank	Mean feeling organisation	Rank	Total (out of 10)	Total Rank
Caring	3,92	3	3,77	1	7,69	1
Purpose	4,00	1	3,38	3	7,38	2
Learning	3,62	6	3,54	2	7,15	4
Enjoyment	3,77	4	3,23	7	7,00	6
Results	4,00	1	3,17	8	7,17	3
Authority	3,69	5	3,38	3	7,08	5
Safety	3,31	8	3,31	5	6,62	8
Order	3,46	7	3,31	5	6,77	7

Stability score	27,628	3
Flexibility score	29,231	2
Independence score	28,397	1
Interdependence score	28,462	4

Pon Power Nederland

Number of responses 126

	Mean Focus organisation	Rank	Mean feeling organisation	Rank	Total (out of 10)	Total Rank
Caring	3,53	2	2,95	3	6,48	4
Purpose	3,44	3	2,67	5	6,11	5
Learning	3,22	6	3,40	1	6,62	2
Enjoyment	3,24	5	2,42	8	5,65	8
Results	4,06	1	2,80	4	6,85	1
Authority	3,42	4	3,07	2	6,49	3
Safety	3,17	7	2,61	6	5,78	6
Order	3,12	8	2,54	7	5,67	7

Stability score	24,783	3
Flexibility score	24,865	2
Independence score	25,615	1
Interdependence score	24,033	4

Pon Equipment Nederland

Number of responses 68

	Mean Focus organisation	Rank	Mean feeling organisation	Rank	Total (out of 10)	Total Rank
Caring	3,26	3	2,84	5	6,10	5
Purpose	3,25	4	2,91	3	6,16	4
Learning	3,24	5	3,38	2	6,62	3
Enjoyment	3,07	6	2,57	7	5,65	6
Results	3,99	1	2,87	4	6,85	1
Authority	3,37	2	3,41	1	6,78	2
Safety	3,00	7	2,60	6	5,60	7
Order	2,97	8	2,41	8	5,38	8

Stability score	24,618	3
Flexibility score	24,531	2
Independence score	25,898	1
Interdependence score	23,250	4

PEPP staffing group

Number of responses 22

	Mean Focus organisation	Rank	Mean feeling organisation	Rank	Total (out of 10)	Total Rank
Caring	3,55	2	3,14	3	6,68	2
Purpose	3,23	6	2,45	8	5,68	8
Learning	3,00	8	3,68	1	6,68	2
Enjoyment	3,27	5	2,59	7	5,86	7
Results	4,32	1	2,73	6	7,05	1
Authority	3,14	7	3,27	2	6,41	4
Safety	3,41	4	2,82	5	6,23	6
Order	3,45	3	2,91	4	6,36	5

Stability score	26,045	3
Flexibility score	24,909	2
Independence score	26,000	1
Interdependence score	24,955	4

Machinefabriek Bolier

Number of responses 16

	Mean Focus organisation	Rank	Mean feeling organisation	Rank	Total (out of 10)	Total Rank
Caring	4,00	2	3,80	2	7,80	1
Purpose	3,87	4	2,73	6	6,60	5
Learning	3,20	6	4,07	1	7,27	2
Enjoyment	3,27	5	2,60	7	5,87	7
Results	4,27	1	3,00	4	7,27	2
Authority	3,93	3	3,20	3	7,13	4
Safety	2,93	8	2,60	7	5,53	8
Order	3,13	7	2,80	5	5,93	6

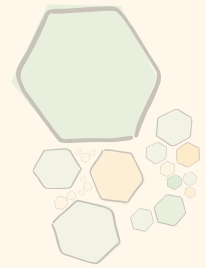
Stability score	25,867	3
Flexibility score	27,533	2
Independence score	27,533	1
Interdependence score	25,867	4

Rank	1	2	3	4	5	6	7	8
PEPP group								
PENO								
Sitech (DE,NL,SE, NK)								
PPNL								
PENL								
PEPP Staffing								
Machinefabriek Bolier								

PEPP GROUP	45281367	Sitech (DE,NL,S	12463587	PENL	54361278	Machinefabriek Bolier	15272486
Caring	4	Caring	1	Caring	5	Caring	4
Purpose	5	Purpose	2	Purpose	4	Purpose	5
Learning	2	Learning	4	Learning	3	Learning	2
Enjoyment	8	Enjoyment	6	Enjoyment	6	Enjoyment	8
Results	1	Results	3	Results	1	Results	1
Authority	3	Authority	5	Authority	2	Authority	3
Safety	6	Safety	8	Safety	7	Safety	6
Order	7	Order	7	Order	8	Order	7

PENO	13465287	PPNL	45281367	PEPP Staffing	28271465
Caring	1	Caring	4	Caring	1
Purpose	3	Purpose	5	Purpose	3
Learning	4	Learning	2	Learning	4
Enjoyment	6	Enjoyment	8	Enjoyment	6
Results	5	Results	1	Results	5
Authority	2	Authority	3	Authority	2
Safety	8	Safety	6	Safety	8
Order	7	Order	7	Order	7

C. Approach interview setup



Qualitative interviews

Starting with the main problem, the right qualitative questions can be deducted;

Design an innovation framework that is a starting point for the different operating companies, to define their own lasting innovation processes?

A lot of concepts (highlighted) in that sentence that have little meaning as they are right now. Questions need to be answered or to have more clarity on are:

What is innovation?

What is an innovation framework?

For who is it exactly?

What is an innovation process?

What are the goals of this process?

What are the resources within this process?

To see what is actually going on, has been the goal of the interviews. In that matter, a semi-structured qualitative interview was used. For me most important was to gain rich information and true meaning from the different employees' perspective on different topics. According to Yin (1994) case studies are a preferred research strategy when seeking to answer these kind of how and why questions. As Patton (2002) states, to achieve this a researcher should not impose predetermined questions since this increases the risk of interviewees not talking freely enough. Directly asking about innovation or an innovation process would:

Possibly not comfort the interviewees

Possibly miss out on other rich information

Possibly result in superficial information about the topic

Setup of the interviews

I found that it was not their responsibility to give me the answers I was looking for. This is the responsibility of a researcher and hence the main focus for the interview was just to 'know what they are doing, how they are doing it and why they are doing it'. The challenge for me was to comfort them in a way, they would eventually by probing, come to talk about the desired topic which is innovation within the company. Second, I used a structure in which they were first able to talk about themselves. I would then probe to reflect their view, on the view of the organisation.

Based on this view, the interview guide was set up and had the following topics/goals:

Current job / challenges / appreciation - context exploration, comfort creation

Culture - what do they value, and what does the company provide herein?

Innovation - what do they know?

Innovation process - what do they think is needed?

As Newton (2010) explains, constant iterations can be made on the interview setup if this provides new insights. This happened constantly as I got more information, I was able to test observations with other interviewees. I also noticed that as the time went by, the interviews went more in-depth and had more specific focus.

Interview guide en thema lijst

1. Jouw werk op dit moment

Opening: Kun je wat vertellen over het werk wat je als HR-manager op dit moment zoal doet?

Follow up:

- Waarom vind je dat dan leuk/doe je dat?
- Kun je voorbeelden geven? (Why)
- Wat zijn uitdagingen of frustraties?
- Wat vind je van jouw collegas?

2. Structuur PPNL

Opening: Kun je mij kort vertellen hoe de gelaagdheid in functie en verantwoordelijkheden werkt binnen PPNL?

3. Cultuur binnen de organisatie

Opening: Je vertelde in de mail over de 'Pon-waarden', wat houden die precies in?

Follow up:

- Kun je voorbeelden geven hoe dit zich uit op de werkvloer?
- Worden deze door iedereen breed gedragen?
- Wat denk je bijvoorbeeld dat de mensen het meest waarderen aan (werken bij) Pon?
- En wat het minste?

4. Innovatie

Opening: Wat versta jij onder het begrip 'innovatie'?

- Waarom versta je dat eronder?
- Wat denk je dat binnen PPNL wordt verstaan onder innovatie?
- Kun je vertellen wat innovatie in jouw werk betekent?
- Voorbeelden?

5. Innovatieproces

Opening: Hoe is innovatie binnen deze organisatie georganiseerd?

Follow ups:

- Wat zijn uitdagingen / twijfels / wat werkt er nog niet?
- Wat voor mensen mis jij denk je?
- Hoe denk jij dat mensen meer geactiveerd kunnen worden met innovatie bezig te zijn?
- Wat zie jij als een essentieel element binnen een innovatieproces?

6. Jouw werk in de toekomst

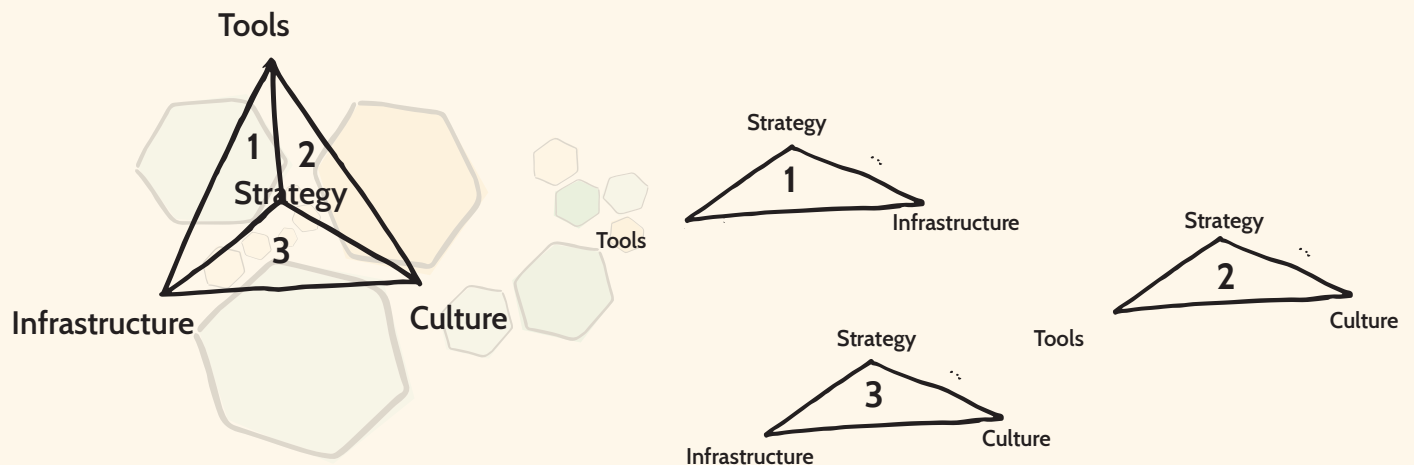
Zou je kunnen vertellen hoe je denkt dat jouw werk er in de toekomst uit ziet?

D. Explanation structures framework

(Disclaimer that there are more structures possible, if the length of the connection would be adjusted.)

1. A triangular pyramid

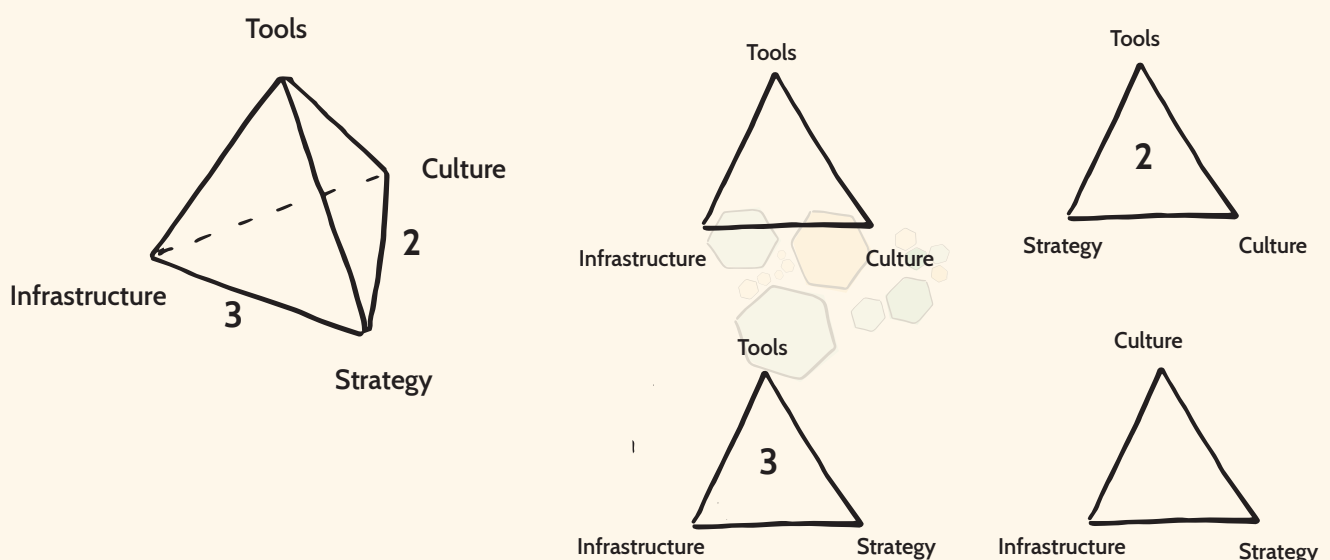
If the elements are placed in a three dimensional structure, the first result would be that all elements are connected to each other. Second, all elements will at least appear in three different surfaces. Third, four surfaces can be found when the structure is decomposed.



As can be seen from the image above, each element will appear at least in three surfaces, meaning quite some overlap will arise.

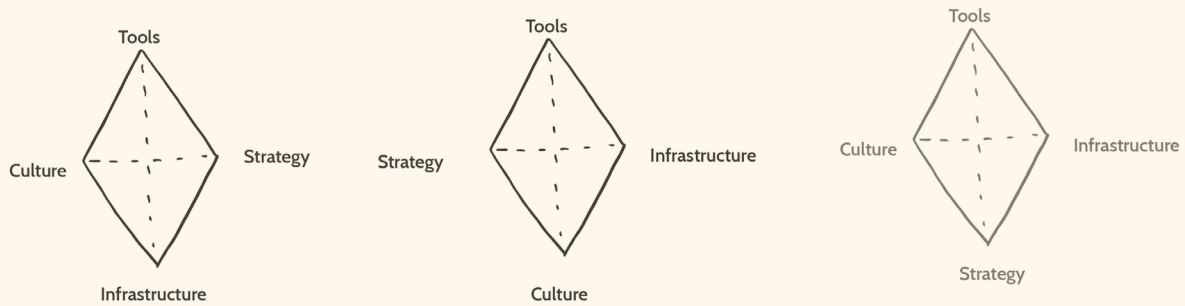
2. A triangle with a middle point

The second option would be not to have a three dimensional structure, but to place an element in the middle of the triangle. The main resemblance with the three dimensional structure is that all elements are connected to each other. The difference is that the overlap in which the elements occur, is less. Every element is at least apparent in two fields. Next to this, instead of having four different fields, one would now end up with only having three fields. Last, the element in the middle is apparent in every field.



3. A flat diamond

The last option would be to have a flat diamond shape. In here, every element is at least connected to two other elements. Deduct double connections, you would end up with six unique connections. However, in a original flat diamond there are no middle-connections drawn. In that sense, one could argue that the middle sections are 'less strong' than the side connections. All have the same connections, but some are connected in the middle, others through the original connections.



E. Interview findings - two lists of 25

The list of 25 – findings/observations- Pon Equipment Norway

1. There is no time to think/question/observe beside the daily job/business
2. There is no clearly communicated innovation thesis (What do we actually mean with it? What trends do we focus on? What are the goals within 3Y, 5Y, 10Y? What are we NOT going to do?)
3. There is an understanding of the meaning of an innovation portfolio
4. There is little facilitation when it comes to idea generation
5. Innovation is happening within the people's minds (introvert)
6. There is not a structured innovation process
7. Mechanics, service technicians are at front when gaining customer experience or ideas
8. A structured way of collecting ideas is missing often
9. The company has grown so fast that besides technical skills, soft-managerial skills are missing out
10. The definition of innovation is Z-line
11. Successes are not often celebrated at each level in the organization
12. As a result of time-shortage on training, people are freestyling
13. Customers are a huge (maybe the biggest) input when it comes to problems/ideas/innovation
14. There are no KPI's on measuring innovation
15. There is too little ownership (in matters of quantity and quality) on different aspects of an innovation process
16. A steering committee is not desirable, but a team of 2 working works great
17. A lot of ideas get stuck 'in the middle'
18. Routine and a conservative mindset is an enormous hurdle for change
19. Digitalization and renewal of old systems is desired for the increase of speed and efficiency.
20. People are open to listen and talk about what they mean, think or see
21. It is a weakness that management sometimes goes faster than others (with assumptions and knowledge)
22. There is little feedback or communication around innovation
23. There are a lot of highly-qualified technicians in the company, with less knowledge about dealing with customers or people
24. There is little (true) mutual understanding of other departments, areas or operating companies
25. There is no clear decision making or gate-keeping for innovation projects-

The list of 25 – findings/observations- Pon Power Nederland

Organisatie is extreem resultaatgericht, met nadruk op financieel resultaat (3)

Ideeën van werknemers vinden geen doorgang en blijven hangen in 'middle-management' (1)

De klant is een gigantische bron van ideeën en problemen, waar nog te weinig mee wordt gedaan (4)

Er wordt veel aangenomen, maar er wordt weinig gedeeld, gepraat of gecheckt. 4

Mensen zitten 'vast' in operationele taken, weinig tot geen tijd om met andere (innovatieve) projecten bezig te zijn

Binnen PPNL, M&T is te druk met Area1 implementaties om bezig te kunnen zijn met Area2 projecten 1

Het innovatie-portfolio van PPNL is onduidelijk. Het is niet duidelijk wanneer iets een Area1 initiatief is, of een continuous improvement. 3

Er is op dit moment geen gestructureerd innovatie-proces binnen de organisatie 2

Er is geen helder gecommuniceerde innovatieagenda (richting), waardoor keuzes maken hierbinnen lastig wordt.

Er wordt te weinig naar alle medewerkers geluisterd, wanneer het aankomt op ideeën of suggesties.

Er heerst een vermoeden dat niet altijd de juiste mensen met de juiste kennis, aanwezig zijn voor verschillende projecten. De juiste mensen vinden is lastig.

De Nederlandse cultuur van 'trots' is terug te zien binnen het bedrijf; we hebben niemand nodig, we kunnen het zelf wel, doen we altijd al- instelling 2

Mensen worden weinig op verschillende manieren (actief en passief) betrokken bij innovatie en innovatieve projecten. 5

PPNL en Caterpillar hebben een erg belangrijke relatie, die veel waarde kan toevoegen, maar ook hier en daar tegen kan werken.

De definitie van innovatie verschilt enorm 3

Support van 'bovenaf' (PEPP-board) is niet altijd aanwezig, betrokkenheid is relatief laag. 4/5

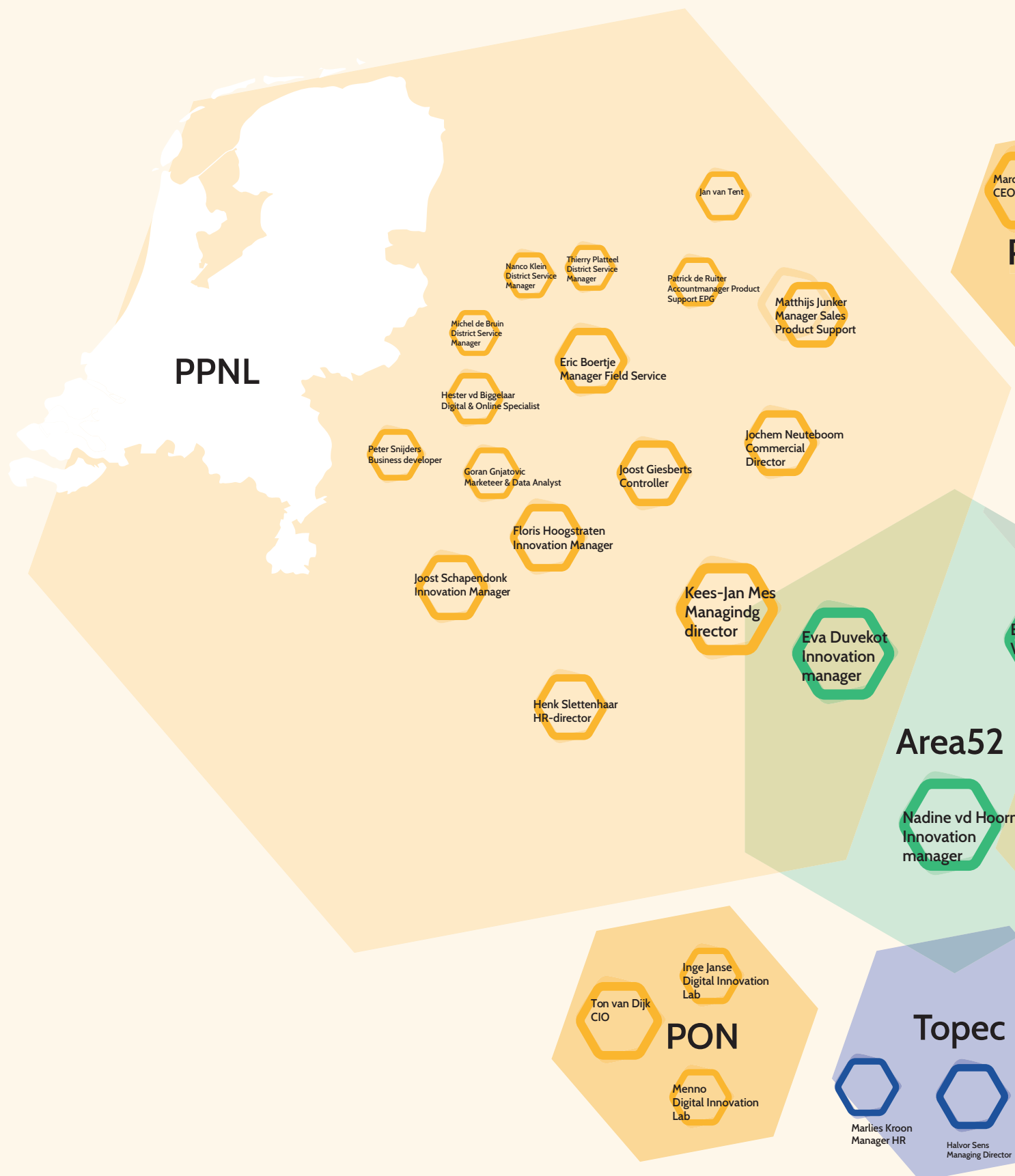
Er is meer behoefte aan een proces om verantwoordelijkheid aan ideeën/projecten te geven, dan aan nieuwe ideeën. 4

Er wordt veel gepraat over innovatie, te veel, en te weinig gedaan. Mensen vinden er wel wat van, maar doen weinig tot niets.

Te weinig alignment tussen M&T (dag van overmogen) en sales&support (dag van morgen) 4

Er is heel veel kennis op veel vlakken, maar het delen hiervan of het opdoen van nieuwe kennis gebeurt weinig. 6

F. Overview interviewees



de Groen

PEPP group

Patrick van Alem
CCO

Bolier

Ben Wijkamp
VP Innovation

Steran Kennholt
Engineering Support Manager

Eivind Hafslund
Project leader

Jon Einar Holum
Project coordinator

Rolf Riiser
Supervisor

Remi Haugen
Workshop Mechanic

Anders Roil
Business Development Manager

Lars Erik Sissener
Leader EM Services

Ivar Christoffersen
HR Director

Sven Henning Roseth
Region manager Oslo

Espen Paulseth
Director marketing

Vilmundur Theodorsson
Product manager

Andreas Walnum
Leader Technical Center

Arild Berg
Welder Supervisor

Erik Sollerud
Managing director

Ole Petter Holene
Service Director

Jarle Kleppan
Commercial Director

Pal Brandvold
Key account manager

PENO

H. Overview interviewees validation / evaluation



Goran Gnjatovic
Marketeer &
data analyst (PPNL)

PON POWER NETHERLANDS



Michel de Bruin
District Service
Manager (PPNL)



Kees-Jan Mes
Managing Director (PPNL)



***Floris Hoogstraten
Innovation Manager
(PPNL)***



***Eric Boertje
Manager Field Service
(PPNL)***

PON EQUIPMENT NORWAY



Erik Sollerud
Managing Director
(PENO)



Eivind Hafslund
Project Manager
Z-line
(PENO)



Anders Roil
Business Development
manager
(PENO)



Stefan Kennholt
Engineering support manager
(PENO)



Andreas Walnum
Technical Communicator
(PENO)

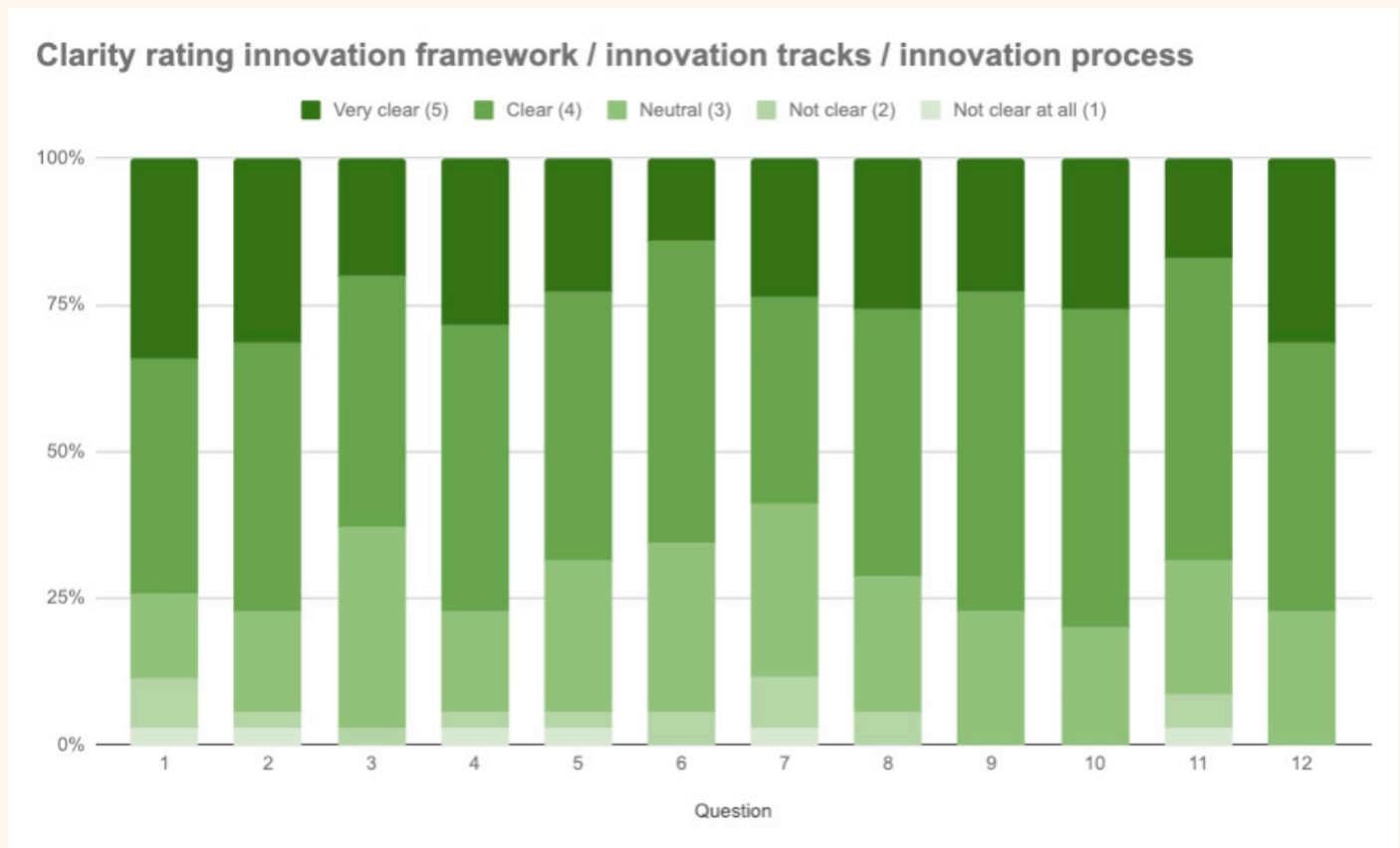


Remi Haugen
Technical Mechanic
(PENO)



Jon-Einar Hollum
Project coordinator Z-line
(PENO)

G. Result survey validation framework



Q1: To what extent do you think this issue is relevant?

Q2: To what extent do you think this is relevant

Q3: To what extent do you think this is more or less relevant than the original question?

Q4: Is the reason for designing a framework clear?

Q5: To what extent do you find the fields of innovation clear?

Q6: To what extent do you think that these fields can (if well organised) stimulate innovation within a company?

Q7: To what extent is it clear what the paths of innovation can be?

Q8: To what extent do you see it as an added value, to formulate a path of innovation?

Q9: To what extent do you think this process is clear?

Q10: To what extent would you, assuming that you receive sufficient explanation and guidance, be able to follow this process yourself?

Q11: The difference between a field of innovation, an innovation path and an innovation process is clear to me

Q12: The difference between an innovation process and an innovation project is clear to me

Survey innovation framework Luc

Dear employee of Pon Equipment Norway,

At the end of the culture study, you indicated that you are interested in the outcome. For that reason I am sending you this new questionnaire. Unfortunately, I can not yet share the direct results of the cultural study in which you participated, but the indirect results are shown in this short survey.

This is the result of my graduation, about which I would like to ask you a number of questions. Your help would greatly help me validate my final design.

This design originated (among other things) from many interviews, the culture study and literature reviews. A number of issues are left out of consideration for now, but I have included them in my final report. (Who is going to do it, when are we going to do it, what does it cost, what is the desired result, etc.)

The questionnaire is anonymous and I hope you can help me answer the questions so that I can make the framework even better with your input!

Thanks in advance and maybe see you next week, when I will be at PENO again.
Greetings Luc

1. Reason for a framework

The challenge I have received from the PEPP group is to design an innovation process that ensures that operating companies can take full responsibility for innovation within their company.

1. To what extent do you think this issue is relevant?

Markeer slechts één ovaal.

	1	2	3	4	5	
Not relevant at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very relevant

Because each operating company is partly the same, but largely different, I have chosen not to design a process. I have chosen to design a framework with which each operating company can define its own innovation process.

I have redefined the above challenge as being:

Design a framework that enables operating companies to set up a process themselves that encourages the various employees to think about innovation.

2. To what extent do you think this is relevant

Markeer slechts één ovaal.

	1	2	3	4	5	
Not at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very much

3. To what extent do you think this is more or less relevant than the original question?

Markeer slechts één ovaal.

	1	2	3	4	5	
Less relevant	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	More relevant

4. Is the reason for designing a framework clear?

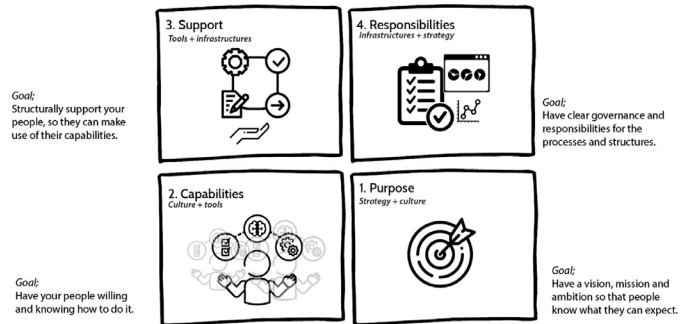
Markeer slechts één ovaal.

	1	2	3	4	5	
Not at all clear	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very clear

2. The fields of innovation

Based on the observations and the culture study I have done, I have come up with a number of challenges for the operating companies, like Pon Equipment Norway. I translated these challenges with additional literature into fields for innovation. The fields are shown in the image below.

To get innovation in a company, all fields must be present and receive sufficient attention all the time.



5. To what extent do you find the fields of innovation clear?

Markeer slechts één ovaal.

	1	2	3	4	5	
Not clear at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very clear

6. To what extent do you think that these fields can (if well organised) stimulate innovation within a company?

Markeer slechts één ovaal.

	1	2	3	4	5	
Not clear at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very clear

3. Tracks of innovation

The fields can be given contextual meaning, by filling in additional worksheets that I created per field. The result of this is that on the one hand the current situation with regard to the field is defined. On the other hand, it is determined which aspects still lack in a field. By filling in the worksheets, different possibilities arise per field, as shown in Figure 2.

By making a choice per field, where you need to focus on, a company is able to formulate a track of innovation. (figure 3) This is a chosen and route towards innovation that connects all fields. It broadly answers the questions:

- What are we going to focus on in terms of innovation? (Eg green energy on land)
- What skills do we need for this? (Eg people with knowledge of green energy)
- Which processes need to be arranged for this? (Eg feedback channels, innovation processes)
- How are we going to supervise this (eg who is responsible for what)
- How are we going to monitor this (eg what results are we going to measure)

Figure 2: Choices per field

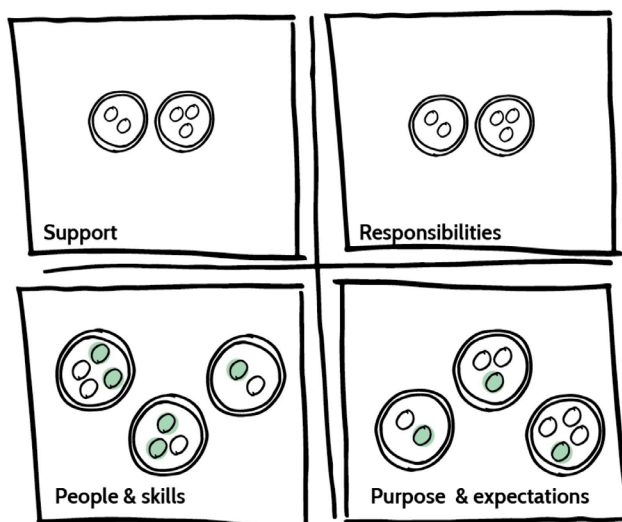
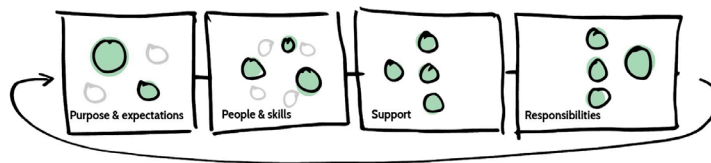


Figure 3: Chosen track of innovation

7. To what extent is it clear what the paths of innovation can be?

Markeer slechts één ovaal.

	1	2	3	4	5	
Not clear at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very clear

8. To what extent do you see it as an added value, to formulate a path of innovation?

Markeer slechts één ovaal.

	1	2	3	4	5	
Not at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very much

4. The innovationprocess

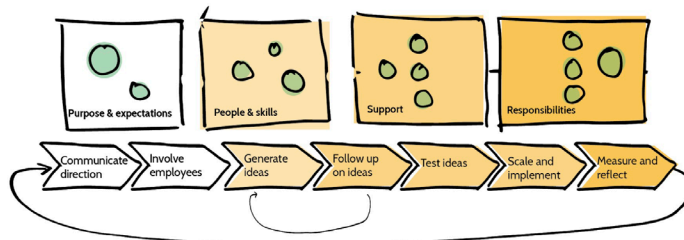
Once a track of innovation has been formulated (that specifically applies for an operating company), an innovation process can be followed. This is a generic process to actually come up with innovations.

The process consists of the following steps:

1. Communicate the direction (the path of innovation)
2. Involve people
3. Generate ideas
4. Treat all ideas
5. Test some ideas
6. Implement and scale the good ideas
7. Measure and learn

For the different steps in this process, manuals have been drawn up. These provide suggestions on how ideas can be generated, or how to follow up on ideas, for example.

In addition, a study was conducted into involving people, which is not taken into account for this questionnaire.



9. To what extent do you think this process is clear?

Markeer slechts één ovaal.

	1	2	3	4	5	
Not at all clear	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very clear

10. To what extent would you, assuming that you receive sufficient explanation and guidance, be able to follow this process yourself?

Markeer slechts één ovaal.

	1	2	3	4	5	
Not at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very much

11. The difference between a field of innovation, an innovation path and an innovation process is clear to me

Markeer slechts één ovaal.

	1	2	3	4	5	
Not clear at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very clear

5. An innovation project

From the phase of idea generation within the innovation process (step 3) it can be followed up in several ways.

- A. An idea is not relevant now
- B. An idea can be tested

When an idea is going to be tested, an innovation project is started. It is possible that this has a short term, when it appears that there is no or too little response from the target group. Similarly, it can have a longer duration until possible implementation.

The end of each innovation project is evaluated and measured so that it provides input for a new path of innovation.

12. The difference between an innovation process and an innovation project is clear to me

Markeer slechts één ovaal.

	1	2	3	4	5	
Not clear at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very clear

13. Any questions or notes?

14. If you would like to talk with me about this next monday or tuesday, please leave your name.

Mogelijk gemaakt door



I. Involving students with Area52

I noticed that the supply of internships is huge; Logically, everyone wants a cheap, fresh thinking- and workforce. This means that students have a lot to choose from and I thought it would be interesting to investigate how Area52 could stand out, and have more interns/ students involved.

What triggers a student to choose for an internship?

How can Area52 stand out in case of promotion to students, so that they all want to do an internship with us?

What have I done:

- Questionnaire drawn up with two themes:
 - > What do you find important when choosing an internship?
 - > Which tasks within an internship appeal to you?
- I have distributed this to many IDE students, now a response of 42 after one day
- Here I quickly made a first analysis, which I think offer good leads.

You will find the first results below.

What do you find important when selecting an internship?		
Topic	Importance score (out of 5)	Rank
Freedom during an internship	3,73	2
Type of jobs/tasks during an internship	4,59	1
Name of the company	3,08	5
If it is close to Delft	2,56	7
The monthly fee	3,02	6
The duration of the internship	3,59	4
The connection with industrial design engineering	3,73	2

Learnings
<ul style="list-style-type: none">* Students tend to find Type of jobs, freedom, and connection with industrial design most important* Students find the location and name of the company least important
What could this mean?
<ul style="list-style-type: none">* When promoting to students for an internship, focus most on the type of jobs/tasks* A combination of framing <i>type of jobs</i> with <i>freedom</i> could be interesting* Don't forget to mention or show the connection with industrial design engineering; how could this benefit the rest of their career?

What kind of tasks within an internship appeal to you?

Kind of task	Level of attraction	Rank
Managing projects	3,92	1
Communication and content tasks	3,43	2
Organising events	3,08	3
Designing posters, flyers, banners and so on	2,36	4

Learnings

- * Students don't like an internship where they are 'workfeuts'
- * But they do like communication and content tasks
- * Foremost they like managing projects

What could this mean?

- * Students want to have responsibility and ownership over a task
- * Students might want to design or make things, but this should be means to a goal (communication/content) and not the goal itself
- * Potatoe potatoe - it is about how you frame an intern position

