

# Project: Anonymised ICI project for TUD repository

Report created by Mathilda du Preez on 28-9-2022

## Code Report – Grouped by: Code Groups

All (129) codes

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### Groupless

#### 26 Codes:

#### ○ Barrier: Agreements on patents

##### 0 Groups

##### 1 Quotations:

##### 13:23 ¶ 109 in Uni13

For drivers and barriers you really have to make strict agreements on where is the business model

##### 0 Codes

#### ○ Barrier: Experiences not defined as living lab experiences

##### 0 Groups

##### 1 Quotations:

##### 1:31 ¶ 116 in Uni1

We already are a living lab, but how can we know and see?

##### 0 Codes

#### ○ Barrier: Fundamental vs Applied

##### 0 Groups

##### 3 Quotations:

##### 3:15 ¶ 112 in Uni3

Also there is a huge difference between fundamental research and applied research. There are two worlds with different expectations from each other.

 **11:18 ¶ 103 in Uni11**

I would recommend to make an innovation model. Also there is always needed intermediary organisations between the two worlds. There should be a distinction between fundamentals of science and engineering. Where is what university within range of fundamental and engineering.

 **12:28 ¶ 102 in Uni12**

I think UvA is more fundamental, Delft is more applied and more practical.

**0 Codes**

 **○ Barrier: Lack of focus**

**0 Groups**

**3 Quotations:**

 **1:12 ¶ 104 in Uni1**

A barrier can be that when you involve all the ideas in the design vision at the beginning, it will never be finished

 **3:9 ¶ 98 in Uni3**

The cooperation with the municipality first was very low. But then they got new board and the university did as well, so we wanted to link the municipality and the university

 **5:6 ¶ 117 in Uni5**

We then set up the Task Force Hybrid Working and we involved several scientists in this. In particular behavioural scientists and asked them what their barriers were, and if they could set up a program. Then they immediately said; there are so many ideas within the university to research that we cannot find where to start.

**0 Codes**

 **○ Barrier: Lack of intra-organization coordination**

**0 Groups**

**3 Quotations:**

 **8:26 ¶ 108 in Uni8**

We can not find each other. We tried to. We are so busy, that we do not take the time to find the scientists.

☰ 9:15 ¶ 27 in Uni9

You need to connect the science and the practical part of bio-diversity. The scientist have wild ideas but as operations we cannot always join in with the issue.

☰ 13:19 ¶ 108 in Uni13

Two worlds; scientists can say other things in interviews than managers. They communicate different.

**1 Codes:**

◀ is cause of ◊ ○ **Barrier: Lack of knowledge on what knowledge is available**

**1 Quotations:**

8:15 ¶ 108, We not know have enough knowledge about the available knowledge. in Uni8

◊ ○ **Barrier: Low enthusiasm**

**0 Groups**

**2 Quotations:**

☰ 9:11 ¶ 22 in Uni9

Enthusiasm is very low if it takes very long. The value of the pilot is very low.

☰ 9:34 ¶ 25 in Uni9

When it becomes complicated people lose the enthusiasm and the drive

**0 Codes**

◊ ○ **Barrier: University members don't represent NormalPopulation**

**0 Groups**

**2 Quotations:**

☰ 1:18 ¶ 120 in Uni1

It is important to realise whether the university represent the normal population

☰ 1:36 ¶ 120 in Uni1

For scientists there is some kind of naivity of what is possible

## 0 Codes

### ◇ ○ Barrier: Unmatched languages of science and practice

## 0 Groups

### 17 Quotations:

#### ☰ 1:46 ¶ 120 in Uni1

It is important to realise whether the university represent the normal population. For scientists there is some kind of naivity of what is possible. On the other hand, managers do not have the ‘normal’ world either. But is this a barrier? The main conclusion here is that there are two worlds that do not understand each other frequently.

#### ☰ 1:47 ¶ 105 in Uni1

The worlds of the scientists and the manager do not match; a scientist can research the null hypothesis again, and put the process on pause for the rest. However, it is not bad what he or she is doing.

#### ☰ 2:42 ¶ 106 in Uni2

Practice what you preach. We paid a research coordinator. We have to facilitate to find the match between the two worlds. So we need a portfolio manager with innovation demand and supply. To match what we want to be and what we currently are. Sometimes we have a bit extra budget for these kinds of experiments, because we do think it is important. You should be able to facilitate it.

#### ☰ 2:43 ¶ 107 in Uni2

It can be better: It would help to have the interface between the two worlds clear. Unknown that it can work, because sometimes it can work but we don't know. One of the professors at Utrecht worked with the municipality on Healthy Urban development, elements of healthy development.

#### ☰ 3:29 ¶ 103 in Uni3

We also had a professor who wanted to adjust an elevator. He wanted to see if English or Dutch had influence on your elevator experience. We did this. Now no one knows why this is. This small adjustment already was such a job to realise. This is because it are two worlds; what does the professor want? What does he want to achieve by doing this? Who pays? We are very practical as facility management and then he is too abstract.

#### ☰ 3:30 ¶ 112 in Uni3

Also there is a huge difference between fundamental research and applied research. There are two worlds with different expectations from each other.

#### 4:26 ¶ 110 in Uni4

The two worlds don't speak each other's language.

#### 6:30 ¶ 127 in Uni6

Wageningen: Every faculty has its own location manager – works at Wageningen to merge the worlds. Knows what the faculty and the campus managers are working on, the Interpreter or the communicator. Knows enough about both worlds to be the bridge. (Simone).

#### 7:45 ¶ 118 in Uni7

Perhaps a department is useful where the budget, project planning, facilitation and matchmaking is important. As a researcher you need to understand the feasibility – research is often very abstract, speaking a different language, we need an equalizer speaking the language. Academic match because of publication requirement might be difficult. This has been addressed to some extent, which is good for living labs.

#### 7:46 ¶ 108 in Uni7

It is hard that there are 2 totally different worlds; researchers and managers. There are however some good examples that we mentioned. However this is only a small number compared with how many ideas there are. Examples: buffers for rain water; if we predict the rainfall, we can empty the buffers in the sewage so that they can be used for the new rainfall. A rejected huge milk tank is placed next to the SportsCenter. The water discharge of the SportsCenter goes to this tank. This contains a module that tracks the weather system. When a lot of rain is predicted, the tank will be emptied. Otherwise the water will be used for greenery. We facilitate this. We think along, facilitate and help to make it work.

#### 9:48 ¶ 29 in Uni9

So we are taking a larger strategic approach toward biodiversity to take a look and include people from science. Joining the two different worlds, academics are frustrated by the timing, complexity of the decisions and difficulty of implementation, while they have a simplistic dream of what it should be, not taking all aspects into consideration. We really don't understand each other.

#### 10:42 ¶ 118 in Uni10

Real tests on real campus. In the programme of desires. If they start a project and it is in the stadium of program of requirements, where is everybody then?! So problem on the campus side. On the other hand, the scientists have another moment to test something. So it is very asynchronous worlds. Asynchronous can be on several levels: the readiness of an innovation to be tested and the availability on the campus side, OR finances; the scientist can get a subsidy but there is no building available to implement this (barrier), OR market party is available but there is no project to implement this is. Most important driver: duty-bound. We are a university, so we have to be innovative in our operations. Then it begins; we need a project management matchmaker And a

matchmaker on portfolio level who constantly scouts within the university what is going on in science and what is going on on campus and can we establish a project. So the preliminary stage; REM – DCM (Project management stadium). A very systematic approach.

☰ **11:18 ¶ 103 in Uni11**

I would recommend to make an innovation model. Also there is always needed intermediary organisations between the two worlds. There should be a distinction between fundamentals of science and engineering. Where is what university within range of fundamental and engineering.

☰ **11:19 ¶ 106 in Uni11**

As a manager I take 50 decisions a day. A researcher 3 a year. These two worlds have nothing to do with each other. I tried to promote, but I don't have the patience to write it. There is no greater difference than between a manager and a researcher in psychology.

☰ **12:34 ¶ 112 in Uni12**

The driver is to connect there ecosystems / worlds.

☰ **12:35 ¶ 113 in Uni12**

A barrier is; the research and campus management worlds are very different.

☰ **13:32 ¶ 108 in Uni13**

Two worlds; scientists can say other things in interviews than managers. They communicate different. They can say; it takes a very long time so we are really not there yet. While we can give the examples of how we can get there. You have to communicate to the outside world as 1 as a university, and not contradict each other. We are going to discuss what we can do, but we will need to communicate accurately.

## **0 Codes**

◇ ○ **Benefit: Efficiency**

## **0 Groups**

## **2 Quotations:**

☰ **2:25 ¶ 112 in Uni2**

For instance for health, vitality or better performance. What does it do for students for employees for the university.

☰ **9:14 ¶ 49 in Uni9**

Furniture acquisition: More transparency in terms of furniture reuse.

## 0 Codes

### ◇ ○ **Benefit: Health**

## 0 Groups

### 1 Quotations:

#### 🍷 2:25 ¶ 112 in Uni2

For instance for health, vitality or better performance. What does it do for students for employees for the university.

## 0 Codes

### ◇ ○ **But they don't know where to start, and how to find a successful business model**

## 0 Groups

### 1 Quotations:

#### 🍷 12:20 ¶ 116 in Uni12

But they don't know where to start, and how to find a successful business model

## 0 Codes

### ◇ ○ **Definition of LL: Opportunity Coalitions**

## 0 Groups

### 6 Quotations:

#### 🍷 2:26 ¶ 118 in Uni2

Definition: Dedicated place for research does not exist yet

#### 🍷 2:36 ¶ 102 in Uni2

I see this as 'opportunity coalitions'.

#### 🍷 3:20 ¶ 97 in Uni3

All physical developments that take place there we can link to other, mostly social, problems in the neighbourhood to create win-win situations. Scientific knowledge can be applied in these residential areas

#### 🍷 11:17 ¶ 104 in Uni11

I depends on what you think is innovation. Also in laws studies innovations are used every year in courts. You have to distinguish innovations of buildings and innovations within buildings. We are investing in labs for human behaviour. Alexandra: these are all normal labs.

 **12:12 ¶ 102 in Uni12**

What is a living lab exactly? It is used for all kinds of projects in which the environment is used for experiments

 **12:30 ¶ 105 in Uni12**

A real life environment and create space, time and organisation to test.

**0 Codes**

 **○ Driver: Contribution**

**0 Groups**

**1 Quotations:**

 **9:18 ¶ 42 in Uni9**

We don't have a lot of space on campus, so companies that want to do something on campus has to bring something to campus, how do they contribute and justify their presence and contribution to campus.

**0 Codes**

 **○ Driver: Matching of goals**

**0 Groups**

**7 Quotations:**

 **1:24 ¶ 110 in Uni1**

then comes the question what is in it for me? It is complicated when someone wants to prove or reject something with their research

 **5:5 ¶ 128 in Uni5**

Campus development and the business side should be balanced

 **6:11 ¶ 105 in Uni6**

The gap between the management side and the practice is not so big, because we as managers also know things like a new road have to comply with sustainability ideas. We know about the scientific values.

 **6:24 ¶ 105 in Uni6**

For instance we have a colleague who is active in Park management; he really likes green and bees and so on. So we really know how to find one another since we have these similar interests.

 **10:26 ¶ 108 in Uni10**

By doing that, they want to prevent a lot of organizational barriers. Assessment of what are the opportunities. There has to be a good matchmakers (demand and supply); dragons den.

 **10:37 ¶ 104 in Uni10**

enthusiastic initiative, challenge based learning (biobased car).

 **12:6 ¶ 115 in Uni12**

They should be more active and participate more in this. They are focussed on the primary process now and forget how they can improve their own process and connect the primary process with the outside world

**0 Codes**

 **○ Driver: Regulation**

**0 Groups**

**3 Quotations:**

 **4:25 ¶ 98 in Uni4**

there are strict legal regulations that

 **12:31 ¶ 110 in Uni12**

We always try to comply with the regulations

 **13:17 ¶ 109 in Uni13**

who is in the lead,

**0 Codes**

 **○ Driver: Shortage**

**0 Groups**

**1 Quotations:**

 **6:12 ¶ 117 in Uni6**

Shortage of space stimulates innovation.

### 0 Codes

#### ◇ ○ Driver: Social impact

### 0 Groups

### 2 Quotations:

#### ☰ 3:6 ¶ 99 in Uni3

solve social problems.

#### ☰ 5:9 ¶ 131 in Uni5

Important drivers are also sustainability and community.

### 0 Codes

#### ◇ ○ Driver: Students involvement

### 0 Groups

### 2 Quotations:

#### ☰ 9:12 ¶ 38 in Uni9

Market: Student community who sees the university as an example of how it has to be done. Green development and sustainability gives a lot of problems. Refuse distribution, outside work space and we are in discussion with them. There is a lot of opportunity for students to pose questions and to comment and the line of communication from students to the impact on operations is actually quite short, a direct impact is almost observable. Students directly email the people in operations. More connection with students that with the colleagues.

#### ☰ 10:33 ¶ 104 in Uni10

A lot of collaboration with student teams

### 0 Codes

#### ◇ ○ Driver: Sustainability

### 0 Groups

### 7 Quotations:

#### ☰ 5:2 ¶ 131 in Uni5

Important drivers are also sustainability

 **6:28 ¶ 105 in Uni6**

We have many people on the management side who are from their selves interested in societal responsibility and sustainability

 **9:7 ¶ 15 in Uni9**

Drivers was sustainability

 **9:9 ¶ 45 in Uni9**

We are not yet busy with resilience. Logistic is a good example of how we are innovating and how we are doing it better. But the driving force is sustainability. So if it is efficient it is sustainable.

 **9:31 ¶ 41 in Uni9**

Pressure from society to do things well to be sustainable

 **9:41 ¶ 35 in Uni9**

. So external funding is not really the driver instead the driver is sustainability, the right thing to do to build the best building you can.

 **9:44 ¶ 26 in Uni9**

. At the moment we also spend a lot of energy on refuse stream reuse and so on

## 0 Codes

 **External vs internal participation**

## 0 Groups

## 4 Quotations:

 **3:28 ¶ 102 in Uni3**

Externally we do participate in these initiatives, but then it does not infect our own operations.

 **7:15 ¶ 116 in Uni7**

We use external advisors for this.

 **8:22 ¶ 97 in Uni8**

We look at more vegan option to reduce the meat production. We bring this information to our food suppliers so they can learn from it. This is an idea that came from outside the campus.

 **10:36 ¶ 94 in Uni10**

Therefore we are in consultation with the municipality and region if we can establish a living lab on the campus.

**0 Codes**

 **○ Ideas: Shared restaurant space as study space**

**0 Groups**

**1 Quotations:**

 **4:4 ¶ 113 in Uni4**

As a university we could enter into an alliance with restaurants that would probably not make it through the crisis. We can provide our students with learning space there, as a business model

**0 Codes**

 **○ planned examples**

**0 Groups**

**1 Quotations:**

 **5:16 ¶ 125 in Uni5**

Can you use your own food court to hire a cook, and make inhabitants cook with you to fight loneliness, can you give 15 minute pitches for students to learn them how to cook healthy, can you use the roof landscape herbs and veggies that you use in the food court, can we make walking routes through the city around the old inner city to make the health campus part of it. We want to make the health ageing campus something that people want to go to; you can see the newest innovations on health there, you can eat healthy sandwiches, and so on. This is all in development.

**0 Codes**

 **○ Problem with direction of requests**

**0 Groups**

**2 Quotations:**

 **7:34 ¶ 113 in Uni7**

We learned that involving researchers ourselves does NOT work. We organise it the other way around; let the researchers involve us.

 **7:42 ¶ 114 in Uni7**

We also wanted to make a small village on campus (6 units) with developed systems so it could function on grid. We wanted to do behavioural research there, smart grid research. This did not happen yet because a grant/subsidy failed. We learned: lets the researchers guide the research.

**0 Codes**

 **○ Solution: Address issues in the media**

**0 Groups**

**2 Quotations:**

 **6:10 ¶ 106 in Uni6**

Example; there was an idea to research what types of light can do with bird houses. On social media many questions occurred. So we have to make the connections and explain why we as a university do these things.

 **9:19 ¶ 32 in Uni9**

Marketing will go out soon, and the vision will be explained.

**0 Codes**

 **○ Solution: Value and ask for inputs**

**0 Groups**

**1 Quotations:**

 **6:14 ¶ 105 in Uni6**

We also put effort in this; we are managed on making these connections. Otherwise a lot of problems wil occur.

**0 Codes**

 **○ Solutions: Engaging with questions asked**

**0 Groups**

**1 Quotations:**

 **6:10 ¶ 106 in Uni6**

Example; there was an idea to research what types of light can do with bird houses. On social media many questions occurred. So we have to make the connections and explain why we as a university do these things.

## 0 Codes

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### ◇◇ Diff: Funding sources

#### 4 Codes:

#### ◇ ○ Barrier: Financial ability to facilitate

#### 3 Groups:

Diff: Funding sources / Financial / Fin-sub: Resourcing

#### 15 Quotations:

##### ☰ 2:6 ¶ 106 in Uni2

Sometimes we have a bit extra budget for these kinds of experiments, because we do think it is important. You should be able to facilitate it.

##### ☰ 3:22 ¶ 103 in Uni3

This is because it are two worlds; what does the professor want? What does he want to achieve by doing this? Who pays? We are very practical as facility management and then he is too abstract.

##### ☰ 4:7 ¶ 108 in Uni4

budget

##### ☰ 5:29 ¶ 132 in Uni5

Barriers are from the organisation mainly the governance structure. We do have money on the banks, but the governance structures on how to make use the money.

##### ☰ 7:3 ¶ 105 in Uni7

I work for maintenance of the campus and also greenery, and I can not reserve money from this for finance research

##### ☰ 7:6 ¶ 113 in Uni7

We also had a bicycle stand with solar panels on the roof. Off grid bicycle stand we had to change it because people wanted it to be more safe. This was not used for research. I put money for real estate in something that is not used by the researchers,

because there was no fence placed around it (so accessible for everyone, not exclusively for the researchers)

 **7:23 ¶ 114 in Uni7**

This did not happen yet because a grant/subsidy failed.

 **7:24 ¶ 107 in Uni7**

However, this was financial not feasible.

 **7:38 ¶ 106 in Uni7**

So many barriers in the testing on applicability. We want to apply them. And if we had more budget for innovation we could facilitate it more. We have to find a two-way street.

 **7:40 ¶ 107 in Uni7**

We wanted to reuse water to use for there sport fields. That has a payback period.

 **8:53 ¶ 107 in Uni8**

At the Erasmus university we are in another financial perspective that last year (disregarding corona). The last years we had an ample financial situation, now we do not. Partly due the Commission ‘Van Rijn’, (the technical universities receive more money than the generic universities). So we have a different strategy for the budget and allocating it. On top of that we have corona. So we use money wisely. You need to find a balance between facilitating research, education and valorisation, and on the other hand the ‘stones’ and facilities to contribute to this. So you need to find the space to connect the primary process with support services. Now it is even hard to include the influence of science in our calamity team. It is about the crossover between the reality to run a university versus the in-house knowledge that can help with this.

 **10:4 ¶ 97 in Uni10**

The complexity is to finance the research

 **10:8 ¶ 110 in Uni10**

. It is also very frustrating for students if there is not steering and no money or discord in the phases for the research projects

 **10:11 ¶ 97 in Uni10**

(also with regards to the subsidization you have to apply for simultaneously) that we can contribute this to the projec

 **10:23 ¶ 97 in Uni10**

It is really about the finding the match in the project planning and the money, and to combine this with the research ambitions.

## 0 Codes

### ◇ ○ **Barrier: Financial mixing of money streams (research and building)**

#### 3 Groups:

Diff: Funding sources / Financial / Fin-sub: Reporting

#### 3 Quotations:

##### 📖 4:11 ¶ 108 in Uni4

There is an appearance of mixing of money flows.

##### 📖 5:29 ¶ 132 in Uni5

Barriers are from the organisation mainly the governance structure. We do have money on the banks, but the governance structures on how to make use the money.

##### 📖 8:32 ¶ 105 in Uni8

If the innovation bring a lot of risk and costs, the faculties will not agree since this money can also be spend for research

## 0 Codes

### ◇ ○ **Barrier: Financial timing**

#### 1 Groups:

Diff: Funding sources

#### 2 Quotations:

##### 📖 6:18 ¶ 116 in Uni6

Also with subsidies and time. If it takes too long the subsidy can be gone. When space is immediately needed, we have space off campus. But then all of a sudden people don't need the space anymore; the necessity is gone. Is it really necessary if they do not accept space that is 5 mins away? This triggers us to really ask if the space is necessary, or if we can find another solution. Will they find more creative solutions then? Location vs. m2

##### 📖 11:7 ¶ 106 – 107 in Uni11

There is no greater difference than between a manager and a researcher in psychology.

For me as a manager it is way easier to reverse money in the big project

## 0 Codes

## ◇ ○ Driver: Financial support is available

### 1 Groups:

Diff: Funding sources

### 6 Quotations:

#### ☰ 1:9 ¶ 119 in Uni1

For initiatives, we should not have financial barriers. The distribution of resources is within the system; for who is it and where does it come from. We have the possibility to sometimes give a financial impulse and often we have money left on the end of the year with which we could have given more impulses. So there is no lack of resources.

#### ☰ 7:31 ¶ 107 in Uni7

Also the Waterboard was informed, they want to pay as well. Like that, we can realise the lab. You need some smart techniques to realise something like this. Financial feasibility – bringing many partners into the network.

#### ☰ 9:54 ¶ 35 in Uni9

Financial encouragement from government subsidies, we built a new building including solar panels. But we don't change our designs to really access any external funding. So external funding is not really the driver instead the driver is sustainability, the right thing to do to build the best building you can.

#### ☰ 10:8 ¶ 110 in Uni10

. It is also very frustrating for students if there is not steering and no money or discord in the phases for the research projects

#### ☰ 10:24 ¶ 99 in Uni10

This is all over a living lab (the design, using biobased materials, installations). We managed to have a part reserved for innovation within the investment

#### ☰ 13:15 ¶ 109 in Uni13

who pays,

### 0 Codes

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## ◇◇ Diff: Motivation

### 20 Codes:

## ◇ ○ **Barrier: Academic territorialism**

### **3 Groups:**

Diff: Motivation / Diff: Working practices / Strategic

### **7 Quotations:**

#### ☰ 1:13 ¶ 122 in Uni1

“Not in my academic backyard. “

#### ☰ 1:19 ¶ 110 in Uni1

Research can show what does not go right. And researchers can react narrow specified on their own topic: ‘I proved that it does not work like that, why don’t you change it?!’ There is no broadening.

#### ☰ 1:28 ¶ 108 in Uni1

Another difference between researchers and managers is that researchers want to maximize 1 thing, while managers want to optimise 10 at the same time.

#### ☰ 8:4 ¶ 107 in Uni8

Now it is even hard to include the influence of science in our calamity team. It is about the crossover between the reality to run a university versus the in-house knowledge that can help with this.

#### ☰ 8:26 ¶ 108 in Uni8

We can not find each other. We tried to. We are so busy, that we do not take the time to find the scientists.

#### ☰ 8:30 ¶ 111 in Uni8

On top of that there is a feeling of ‘being better’ and status from the academy relative to support services. Also people do not see how complex the decisions are we need to take. Also it is hard to align the people. One faculty director, oh, now I have more insight into the difficult decisions that has to be made. Barrier: academics have no insight into the complex decisions made by the practitioners as supporting medewerkers and also very little respect for it sometimes

#### ☰ 12:23 ¶ 108 in Uni12

UvA has a lot of knowledge on monument management, but the own professors of the UvA are the biggest critics when it comes to the campus or the city. This is not the help you are looking for. So it provides more complexity.

### **0 Codes**

## ◇ ○ **Barrier: Conflict of interest**

### **2 Groups:**

Diff: Motivation / Strategic

### **8 Quotations:**

#### ☰ 1:17 ¶ 109 in Uni1

There is also the barrier of conflicts of interest.

#### ☰ 1:25 ¶ 120 in Uni1

The main conclusion here is that there are two worlds that do not understand each other frequently.

#### ☰ 3:15 ¶ 112 in Uni3

Also there is a huge difference between fundamental research and applied research. There are two worlds with different expectations from each other.

#### ☰ 3:22 ¶ 103 in Uni3

This is because it are two worlds; what does the professor want? What does he want to achieve by doing this? Who pays? We are very practical as facility management and then he is too abstract.

#### ☰ 7:11 ¶ 104 in Uni7

It is hard to connect researchers in new built or renovation projects. Research is on the side of what is possible and is not applicable enough for real life. Not feasible enough sometimes

#### ☰ 8:35 ¶ 94 in Uni8

As a facilitator you end up in a split (drawn to 2 sides).

#### ☰ 10:30 ¶ 110 in Uni10

This is not the nature of the scientist.

#### ☰ 11:10 ¶ 106 in Uni11

As a manager I take 50 decisions a day. A researcher 3 a year. These two worlds have nothing to do with each other

### **0 Codes**

## ◇ ○ **Barrier: Engaged only with those academics driving it**

### **4 Groups:**

Diff: Motivation / Diff: Type of involvement / Strategic / Strat-sub: Assigned Responsibility

## 2 Quotations:

### 2:3 ¶ 108 in Uni2

We actually only speak to people who want to do things on campus.

### 10:12 ¶ 109 in Uni10

Regarding the point of innovation is not seen by academics; science has to be challenged and they have to promote their own projects to show what opportunities there are and how we can cooperate.

## 0 Codes

### ○ **Barrier: Goal to be financially efficient**

## 4 Groups:

Diff: Motivation / Diff: Target / Financial / Fin-sub: Resourcing

## 3 Quotations:

### 2:33 ¶ 111 in Uni2

and we want to make clear (especially in an organisation that focuses on financially efficient real estate portfolio)

### 4:21 ¶ 110 in Uni4

it can also clash with the financial reality

### 7:17 ¶ 113 in Uni7

I put money for real estate in something that is not used by the researchers, because there was no fence placed around it (so accessible for everyone, not exclusively for the researchers). So this makes me very hesitant to do things like this. This keeps us from doing it another time

## 0 Codes

### ○ **Barrier: Low impact, prevents continuation**

## 1 Groups:

Diff: Motivation

## 2 Quotations:

### 2:29 ¶ 105 in Uni2

As long as a (small) research project does not give us any input, it is hard to continue with it.

☰ **9:1 ¶ 22 in Uni9**

The value of the pilot is very low

**0 Codes**

◇ ○ **Barrier: Unclear strategy**

**3 Groups:**

Diff: Motivation / Strategic / Strat-sub: Vision

**9 Quotations:**

☰ **5:17 ¶ 117 in Uni5**

Then they immediately said; there are so many ideas within the university to research that we cannot find where to start. We are willing to think along, and you can interview us for our knowledge, but we are not going to commit ourselves to this. I was really disappointed and we did not manage to get this done.

☰ **8:37 ¶ 96 in Uni8**

To see if they can work at the campus, and what that will add to the total vision on what we want to be, and for other to house on the campus. (what is the benefit of having business on campus?)

☰ **9:3 ¶ 31 in Uni9**

Simple things like setting up a solar panel somewhere is not an issue, but if you want to manage on a larger scale it becomes a bigger issue because it does not form part of the masterplan.

☰ **9:26 ¶ 50 in Uni9**

Radboud and radical is not supposed to be in the same sentence. We don't develop the products themselves, we provide the space for tests and such, but not developing the products themselves.

☰ **9:35 ¶ 29 in Uni9**

So we are taking a larger strategic approach toward biodiversity to take a look and include people from science

☰ **11:2 ¶ 97 in Uni11**

We do not really want to test new things in our buildings

☰ **11:8 ¶ 102 in Uni11**

I think we are quite innovative, but cautious with new concepts in buildings that are not prove

 **12:24 ¶ 108 in Uni12**

Campus managers; we do not frequently use the expertise from our faculties to use in our own developments at the campus

 **12:27 ¶ 106 in Uni12**

On the outer space of the UvA campus there is not really tested on things

**0 Codes**

 **○ Driver: Comparisons to other universities**

**2 Groups:**

Diff: Motivation / Visionary Innovation

**2 Quotations:**

 **9:13 ¶ 43 in Uni9**

WE all want to stand on the lists, but we need to look at other universities on what they are doing in terms of... Si the driver is the comparison with other NL universities. So assessing how the universities compare and looking at competitors.

 **11:6 ¶ 97 in Uni11**

We try to learn from each other and look what concept we can implement

**0 Codes**

 **○ Driver: Contribution to society**

**1 Groups:**

Diff: Motivation

**6 Quotations:**

 **1:10 ¶ 119 in Uni1**

We try to contribute, to see what we can achieve

 **3:1 ¶ 99 in Uni3**

Drivers to participate in these kinds of initiatives are to contribute to the city

 **4:20 ¶ 98 in Uni4**

driver to do sustainability measurements is that a university has the societal duty

☰ **5:15 ¶ 130 in Uni5**

Also we want to have an important societal meaning for developing the region.

☰ **6:28 ¶ 105 in Uni6**

We have many people on the management side who are from their selves interested in societal responsibility and sustainability

☰ **12:14 ¶ 110 in Uni12**

We also have our social responsibility as a deep driver.

**0 Codes**

◇ ○ **Driver: Convenience**

**1 Groups:**

Diff: Motivation

**3 Quotations:**

☰ **9:5 ¶ 57 in Uni9**

Teaching and research are the most important things, so if we need to innovate to make that happen. Then it works better. Performance driven, the internal market, needs from the university and the

☰ **9:25 ¶ 46 in Uni9**

Studies and student numbers: Are student numbers a motivation to install innovations and I cannot think about any examples of how this is possible.

☰ **9:38 ¶ 23 in Uni9**

What do we really want to install on campus and only pilot the technology that you want to use.

**0 Codes**

◇ ○ **Driver: Co-operation between departments**

**3 Groups:**

Diff: Motivation / Diff: Type of involvement / Strat-sub: Vision

**5 Quotations:**

☰ **1:30 ¶ 103 in Uni1**

in which several groups are involved

☰ **1:32 ¶ 102 in Uni1**

, designed in cooperation with geology and it is in use

☰ **2:31 ¶ 118 in Uni2**

Sustainability is no charity. It is a game to get this together feasible, Copernicus institute, bringing all these different things together

☰ **7:19 ¶ 112 in Uni7**

TechMed centre: this is new. One building in which all health-oriented educations are placed. Just like what we wanted with robotica; put them together for mutual influence

☰ **7:44 ¶ 104 in Uni7**

For us this is useful as well, because we will see de sustainability of these buildings. So this is someone of the research field who takes part in the realisatio

## **0 Codes**

◇ ○ **Driver: Enthusiasm**

### **1 Groups:**

Diff: Motivation

### **8 Quotations:**

☰ **2:27 ¶ 104 in Uni2**

There has to be intrinsic motivation

☰ **2:39 ¶ 103 in Uni2**

Moral of the story: as long as you have an enthusiastic prof who wants to participate and does the work, then it can work, and now he uses that area as a living lab

☰ **3:11 ¶ 109 in Uni3**

These are minor co-operation. Two scientists who volunteered.

☰ **4:15 ¶ 102 in Uni4**

It was a monument, so sustainability ambitions were incorporated in the adaptive reuse plans

☰ **8:18 ¶ 91 in Uni8**

Everybody was super enthusiastic about being a living lab,

☰ **8:23 ¶ 94 in Uni8**

On the one side the project is really cool,

 **8:43 ¶ 94 in Uni8**

Drivers are mostly very enthusiastic teachers / students et cetera,

 **10:37 ¶ 104 in Uni10**

enthusiastic initiative, challenge based learning (biobased car).

**0 Codes**

 **○ Driver: Financial gain**

**1 Groups:**

Diff: Motivation

**1 Quotations:**

 **13:27 ¶ 109 in Uni13**

In the end an innovation is a money machine.

**0 Codes**

 **○ Driver: Improved campus if changes work**

**1 Groups:**

Diff: Motivation

**1 Quotations:**

 **2:13 ¶ 104 in Uni2**

We have the drive to test because we also want to help ourselves further (value innovation)

**0 Codes**

 **○ Driver: International rankings**

**1 Groups:**

Diff: Motivation

**1 Quotations:**

 **5:19 ¶ 130 in Uni5**

An important driver for us is to be high in the international rankings.

**0 Codes**

## ◇ ○ Driver: Organizational priority setting

### 2 Groups:

Diff: Motivation / Visionary Innovation

### 6 Quotations:

#### ☰ 9:17 ¶ 59 in Uni9

Campus and facilities do what they do. The college of management has to indicate that this is a priority and has to be done. If you go into a discussion and you look for a solution is very different than when everyone is not really committed. If everyone has the time, the task, the priority and the assignment they tend to find the solutions

#### ☰ 10:3 ¶ 104 in Uni10

We are in the brainport region and in collaboration when a scale-up can be transferred into for instance ‘‘Strijp-S’’ or high tech campus

#### ☰ 10:7 ¶ 98 in Uni10

. Innovation is implemented on campus and they want to implement it again on another place on campus

#### ☰ 10:9 ¶ 111 in Uni10

The main driver is university driven; you want to be the frontrunner to initiate developments and then find cooperation with the market as soon as possible.

#### ☰ 10:24 ¶ 99 in Uni10

This is all over a living lab (the design, using biobased materials, installations). We managed to have a part reserved for innovation within the investment

#### ☰ 10:29 ¶ 104 in Uni10

Matrix is a building for challenge based learning. Important to give space for these developments to give a change to grow.

### 0 Codes

## ◇ ○ Driver: Pressure from society

### 1 Groups:

Diff: Motivation

### 1 Quotations:

#### ☰ 9:31 ¶ 41 in Uni9

Pressure from society to do things well to be sustainable

## 0 Codes

### ◇ ○ Driver: Reputation management

#### 1 Groups:

Diff: Motivation

#### 7 Quotations:

##### ☰ 3:7 ¶ 99 in Uni3

for our name as a university

##### ☰ 3:32 ¶ 99 in Uni3

Drivers to participate in these kinds of initiatives are to contribute to the city, for our name as a university and to solve social problems. There is no external extra driver to do this.

##### ☰ 5:34 ¶ 130 in Uni5

An important driver for us is to be high in the international rankings. Also we want to have an important societal meaning for developing the region. Formerly we were really international. We had a campus in China and South-America. We wanted to be linked to large companies. That driver now totally changed because of the China-affair. Now we are the University of the North; own identity, gas-region, energy-transition region. So that will be our driver for the coming years. We want to have a top position international, but from our own central position.

##### ☰ 8:48 ¶ 100 in Uni8

Innovation in the Real Estate is always very visible, to everyone, so if everyone sees it all the time, it is a real barrier.

##### ☰ 12:5 ¶ 110 in Uni12

We want to showcase what we are doing as a university

##### ☰ 13:22 ¶ 103 in Uni13

People want to test at the TU, just for the label. It is about the brand. Tested by / at / in cooperation with.

##### ☰ 13:25 ¶ 108 in Uni13

You have to communicate to the outside world as 1 as a university, and not contradict each other.

## 0 Codes

◇ ○ **Driver: Searching for an opportunity (on or off campus)**

**1 Groups:**

Diff: Motivation

**2 Quotations:**

☰ **4:3 ¶ 100 in Uni4**

it was from the research program, and from there on they looked for a practice situation

☰ **10:26 ¶ 108 in Uni10**

By doing that, they want to prevent a lot of organizational barriers. Assessment of what are the opportunities. There has to be a good matchmakers (demand and supply); dragons den.

**0 Codes**

◇ ○ **Solution: Enthusiasm**

**1 Groups:**

Diff: Motivation

**2 Quotations:**

☰ **1:37 ¶ 103 in Uni1**

My trick is to make people enthusiastic and to establish personal contact.

☰ **8:44 ¶ 104 in Uni8**

There is always needed a person who has the guts to just to it and who is the driving force. This helps to overcome cold feet

**0 Codes**

◇ ○ **Solution: Manage expectations**

**1 Groups:**

Diff: Motivation

**2 Quotations:**

☰ **2:17 ¶ 104 in Uni2**

You have to keep track of what you hope, but bring your best suggestions and match that with the expectations of the researcher.

☰ **2:18 ¶ 107 in Uni2**

It can be better: It would help to have the interface between the two worlds clear.  
Unknown that it can work, because sometimes it can work but we don't know

**0 Codes**

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◇ **Diff: Risk expectancy**

**10 Codes:**

◇ ○ **Barrier: Additional responsibility**

**3 Groups:**

Diff: Risk expectancy / Strategic / Strat-sub: Assigned Responsibility

**3 Quotations:**

☰ **3:19 ¶ 102 in Uni3**

Internally, for many people it would be something to do next to their main job.

☰ **8:6 ¶ 105 – 106 in Uni8**

We do not have all the power to make these decisions.

From both sides: do we even have space to fail? For who are the costs then?

☰ **12:16 ¶ 114 in Uni12**

The researcher is only there for the primary process.

**0 Codes**

◇ ○ **Barrier: Fear of making a decision**

**2 Groups:**

Diff: Risk expectancy / Strategic

**3 Quotations:**

☰ **8:6 ¶ 105 – 106 in Uni8**

We do not have all the power to make these decisions.

From both sides: do we even have space to fail? For who are the costs then?

 **8:17 ¶ 103 in Uni8**

There should be some space within the organisation to facilitate this process for the innovation. If it costs more than a proven technology, but at the same time there will be less spend on energy bills, there will be space for the innovation.

 **8:46 ¶ 101 in Uni8**

So the balance of responsibility is complicated.

**0 Codes**

 **○ Barrier: Privacy and data access**

**1 Groups:**

Diff: Risk expectancy

**1 Quotations:**

 **1:4 ¶ 121 in Uni1**

The last barrier is privacy. In living labs this is frequently mentioned with data collection

**0 Codes**

 **○ Barrier: Regulatory requirements**

**1 Groups:**

Diff: Risk expectancy

**11 Quotations:**

 **8:7 ¶ 101 in Uni8**

Contractually we cannot install things that are not approved – the risk is too high.

 **8:12 ¶ 94 in Uni8**

and on the other hand there are all these legal restrictions.

 **8:20 ¶ 94 in Uni8**

unnecessarily high requirements for testing and innovations.

 **8:24 ¶ 98 in Uni8**

Changes made to the rules about acquisitions and supply chain to ensure the sustainability of the things that were bought

 **8:25 ¶ 101 in Uni8**

Also you are spending public money. Maybe you should especially spend money on innovation, but it is difficult. So you want to know what you will get for your money. There is not enough space to experiment.

 **8:34 ¶ 91 in Uni8**

however the barrier here was the land-use plan (legal barrier)

 **8:50 ¶ 94 in Uni8**

As a facilitator you end up in a split (drawn to 2 sides). On the one side the project is really cool, and on the other hand there are all these legal restrictions. Drivers are mostly very enthusiastic teachers / students et cetera, however the barriers kill the decisiveness, unnecessarily high requirements for testing and innovations. The driving force is of great importance. They have to remain throughout the process. Even the most enthusiast person can withdraw because things don't go as they should. Many frustrations.

 **9:53 ¶ 34 in Uni9**

Regulations: Compliance, there's no discussion on whether this will be done or not, this is for health and safety. Does regulations ever help to enforce innovations? No discussions on how to get around discussion. We have no choice about this.

 **12:8 ¶ 105 in Uni12**

On this terrain there is no land-use plan, it is private terrain used by public. So less regulations, more free zone.

 **13:4 ¶ 101 in Uni13**

The Green Village is a conclave without rules of law. We can do things there without permits. This is not for the whole campus, only on the Green Village. Within the buildings there is more possible than outside the buildings. So you have constraints.

 **13:14 ¶ 99 in Uni13**

license to operate

## 0 Codes

 **○ Barrier: Risk**

## 2 Groups:

Diff: Risk expectancy / Strat-sub: Assigned Responsibility

## 14 Quotations:

 **2:12 ¶ 110 in Uni2**

Risk is an important aspect as well, not only enthusiasm. Very dependent on good management. In building projects you want to manage the risks (you cannot employ innovation in a project) even if everyone is enthusiastic about it

☰ **2:24 ¶ 112 in Uni2**

To avoid risks, not-proven technology can be avoided in practice.

☰ **6:1 ¶ 108 in Uni6**

This is not tested yet, so we cannot use it for instance for heavy vehicles. You need to find the medium between where you can use it and where you cannot. The risks cannot be too high.

☰ **6:17 ¶ 115 in Uni6**

To many risks, too far ahead.

☰ **7:2 ¶ 115 in Uni7**

However when it is a certain technique in a building that is not proven yet we will not apply it.

☰ **8:7 ¶ 101 in Uni8**

Contractually we cannot install things that are not approved – the risk is too high.

☰ **8:8 ¶ 100 in Uni8**

Innovation in the Real Estate is always very visible, to everyone, so if everyone sees it all the time, it is a real barrier.

☰ **8:42 ¶ 106 in Uni8**

From both sides: do we even have space to fail? For who are the costs then?

☰ **8:45 ¶ 98 in Uni8**

We don't integrate not proven technology (barrier!).

☰ **8:52 ¶ 101 in Uni8**

Contractually we cannot install things that are not approved – the risk is too high. If the experimentation is not successful you get punished, through sentiment or questions about where you spent money – a big barrier. Also you are spending public money. Maybe you should especially spend money on innovation, but it is difficult. So you want to know what you will get for your money. There is not enough space to experiment. So the balance of responsibility is complicated.

☰ **9:4 ¶ 14 in Uni9**

It worked well – installation of a proven technology – easy.

 **13:16 ¶ 110 in Uni13**

Everyone who knows about the innovation is a risk.

 **13:30 ¶ 99 – 100 in Uni13**

It can be millions of euros that can get lost.

This means that everything you do with experiments, should not disturb this. Your freedom to experiment is thus limited. It is about the commodities (nutsfuncties). This also is about safety.

 **13:35 ¶ 110 in Uni13**

Everyone who knows about the innovation is a risk. So what about sharing information? It is an accelerator, but you have to find the timing on when to share what information with who. As TU we do not have the Direction on this. We could make more use of YES!Delft and NextDelft. We have the whole cycle of science, innovation and implementation on our campus and to our access.

**0 Codes**

 **○ Barrier: Unreliable quality of the changes**

**1 Groups:**

Diff: Risk expectancy

**1 Quotations:**

 **2:10 ¶ 104 in Uni2**

You can't count on the quality.

**0 Codes**

 **○ Driver: Learn from failed attempts**

**2 Groups:**

Diff: Risk expectancy / Diff: Working practices

**1 Quotations:**

 **6:4 ¶ 110 in Uni6**

We choose for ourselves, also for when it goes wrong. So we can experience the teething problems ourselves.

**0 Codes**

◇ ○ **Solution: Acknowledge possible failure**

**1 Groups:**

Diff: Risk expectancy

**2 Quotations:**

☰ **2:11 ¶ 104 in Uni2**

When you allow people to experiment, you have to keep in mind that an option is that it will fail

☰ **8:28 ¶ 104 in Uni8**

Then we might be able to try and acceptable to fail; if you try something, you can fail!  
It is the cost of innovation.

**0 Codes**

◇ ○ **Solution: Already implemented in the market**

**1 Groups:**

Diff: Risk expectancy

**1 Quotations:**

☰ **1:20 ¶ 122 in Uni1**

Scientists face this as well. They try to find solutions. For instance, a group is working on image analysis on Schipho

**0 Codes**

◇ ○ **Solution: Use lessons learnt from other projects**

**1 Groups:**

Diff: Risk expectancy

**1 Quotations:**

☰ **1:34 ¶ 106 in Uni1**

Instead, we should use lessons learned from former projects.

**0 Codes**

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## Diff: Target

### 10 Codes:

#### ○ Barrier: Different goals

### 1 Groups:

Diff: Target

### 12 Quotations:

#### 1:39 ¶ 105 in Uni1

The worlds of the scientists and the manager do not match; a scientist can research the null hypothesis again, and put the process on pause for the rest. However, it is not bad what he or she is doing

#### 3:26 ¶ 107 in Uni3

Match between departments and campus real estate is not so clear, there are not so many needs known from

#### 4:30 ¶ 110 in Uni4

This did not work because the question of the real estate department was really specific: what do we have to do with our maintenance plans to make the right choices to make decisions. The researchers on the other hand had another agenda; what should I do to get sustainability on the agenda. Really on their own theme. The two worlds don't speak each other's language. The moment that sustainability is too much of the ambition, it can also clash with the financial reality. Real estate management has the to operate in reality – with scarcity of projects.

#### 5:12 ¶ 118 in Uni5

Goals are not aligned and then it does not work.

#### 6:18 ¶ 116 in Uni6

Also with subsidies and time. If it takes too long the subsidy can be gone. When space is immediately needed, we have space off campus. But then all of a sudden people don't need the space anymore; the necessity is gone. Is it really necessary if they do not accept space that is 5 mins away? This triggers us to really ask if the space is necessary, or if we can find another solution. Will they find more creative solutions then? Location vs. m2

#### 6:27 ¶ 115 in Uni6

A barrier can be that the scientific culture and our culture cannot really find each other.

☰ **7:6 ¶ 113 in Uni7**

We also had a bicycle stand with solar panels on the roof. Off grid bicycle stand we had to change it because people wanted it to be more safe. This was not used for research. I put money for real estate in something that is not used by the researchers, because there was no fence placed around it (so accessible for everyone, not exclusively for the researchers)

☰ **8:30 ¶ 111 in Uni8**

On top of that there is a feeling of 'being better' and status from the academy relative to support services. Also people do not see how complex the decisions are we need to take. Also it is hard to align the people. One faculty director, oh, now I have more insight into the difficult decisions that has to be made. Barrier: academics have no insight into the complex decisions made by the practitioners as supporting medewerkers and also very little respect for it sometimes

☰ **9:15 ¶ 27 in Uni9**

You need to connect the science and the practical part of bio-diversity. The scientist have wild ideas but as operations we cannot always join in with the issue.

☰ **9:47 ¶ 59 in Uni9**

Campus and facilities do what they do. The college of management has to indicate that this is a priority and has to be done. If you go into a discussion and you look for a solution is very different than when everyone is not really committed. If everyone has the time, the task, the priority and the assignment they tend to find the solutions.

☰ **10:22 ¶ 96 in Uni10**

It is about science versus practical planning. It is hard to combine.

☰ **12:22 ¶ 108 in Uni12**

We also not frequently get questions from the other side (research side)

## **0 Codes**

◇ ○ **Barrier: Goal to be financially efficient**

## **4 Groups:**

Diff: Motivation / Diff: Target / Financial / Fin-sub: Resourcing

## **3 Quotations:**

☰ **2:33 ¶ 111 in Uni2**

and we want to make clear (especially in an organisation that focuses on financially efficient real estate portfolio)

☰ **4:21 ¶ 110 in Uni4**

it can also clash with the financial reality

☰ **7:17 ¶ 113 in Uni7**

I put money for real estate in something that is not used by the researchers, because there was no fence placed around it (so accessible for everyone, not exclusively for the researchers). So this makes me very hesitant to do things like this. This keeps us from doing it another tim

**0 Codes**

◇ ○ **Benefit: Improved planning and implementation**

**1 Groups:**

Diff: Target

**2 Quotations:**

☰ **2:20 ¶ 102 in Uni2**

Biodiversity thinking is on a higher plain and the gemeente help with the biodiversity planning.

☰ **2:37 ¶ 111 in Uni2**

what is the benefit of this experiment for the real estate portfolio.

**0 Codes**

◇ ○ **Driver: Aligement with REM strategy**

**2 Groups:**

Diff: Target / Strat-sub: Vision

**9 Quotations:**

☰ **2:4 ¶ 111 in Uni2**

The real estate strategy want to realise value

☰ **5:13 ¶ 124 in Uni5**

For instance Nano technology, Artificial intelligence, energy transition, healthy ageing. On these themes we develop programs, and we try to physically shape this into living labs and to show this.

☰ **5:20 ¶ 124 in Uni5**

In the strategy for the campus we defined several areas to exce

☰ **5:23 ¶ 129 in Uni5**

We also want to develop some “schools” in which people from different disciplines can work together on a entrain theme.

☰ **6:24 ¶ 105 in Uni6**

For instance we have a colleague who is active in Park management; he really likes green and bees and so on. So we really know how to find one another since we have these similar interests.

☰ **7:22 ¶ 115 in Uni7**

Sometimes there are very progressive ideas for innovations. As long as it not hinders the normal operations, we facilitate it

☰ **8:5 ¶ 96 in Uni8**

We think we are a liberal and entrepreneurial university.

☰ **10:9 ¶ 111 in Uni10**

The main driver is university driven; you want to be the frontrunner to initiate developments and then find cooperation with the market as soon as possible.

☰ **10:41 ¶ 108 in Uni10**

, and at the front you have to think already together with users and finances and practical feasibility this about on what innovations you want to focus that will be realised in the implementation

## **0 Codes**

◇ ○ **Driver: Commitment to specific outcomes**

### **3 Groups:**

Diff: Target / Strat-sub: Assigned Responsibility / Strat-sub: Vision

### **1 Quotations:**

☰ **10:6 ¶ 94 in Uni10**

For instance mobility hubs. Also, since recently we have been part of the “zero-emission zone” of the city, so we are fully involved and enthusiastic on this topic)

## **0 Codes**

## ◇ ○ Driver: Focused themes as university strategy

### 4 Groups:

Diff: Target / Diff: Working practices / Strat-sub: Vision / Visionary Innovation

### 6 Quotations:

#### ☰ 5:7 ¶ 130 in Uni5

We had a campus in China and South-America. We wanted to be linked to large companies. That driver now totally changed because of the China-affair. Now we are the University of the North; own identity, gas-region, energy-transition region.

#### ☰ 5:14 ¶ 130 in Uni5

We want to have a top position international, but from our own central position.

#### ☰ 5:23 ¶ 129 in Uni5

We also want to develop some “schools” in which people from different disciplines can work together on a entrain theme.

#### ☰ 6:5 ¶ 103 in Uni6

The themes that we are good at as a university (green, sustainability, biodiversity, socially responsible) are very integrated; we want to make researchers and scientists involved in the beginning of the process, and make them experts.

#### ☰ 6:22 ¶ 104 in Uni6

“Beter Bereikbaar Wageningen (Better Accessible Wageningen)” is a large political theme.

#### ☰ 13:21 ¶ 109 in Uni13

This has to be decided in the front, otherwise many innovations will not succeed.

### 0 Codes

## ◇ ○ Driver: Innovation defined as a project

### 2 Groups:

Diff: Target / Visionary Innovation

### 1 Quotations:

#### ☰ 10:14 ¶ 97 in Uni10

) that we can contribute this to the project.

## 0 Codes

### ◇ ○ Driver: Vision

## 2 Groups:

Diff: Target / Strat-sub: Vision

## 20 Quotations:

### ☰ 3:3 ¶ 98 in Uni3

To make a university city. And then the researchers were better linked to these kinds of initiatives. So there researchers now research difficult areas in the city of Tilburg.

### ☰ 4:1 ¶ 102 in Uni4

This was different in the Tapijn Kazerne. In 2013 the ambition was made to realise project that assured added value to its surroundings.

### ☰ 4:6 ¶ 103 in Uni4

One of the suggestions was to, next to BREAAAM, also use the well-building certificate. It would be the first building in the world that in heritage had a 'well-building' certificate. It is broader than BREAAAM (just technique). Well-building is also about the people in and around the building. Sustainability is more than technique. Sustainable living of the building users were also included

### ☰ 4:10 ¶ 114 in Uni4

The organization has to have the drive and the vision to work together to find technical solutions for sharing spaces that are normally quite difficult (sharing a theatre and a lecture hall).

### ☰ 4:14 ¶ 112 in Uni4

An open learning landscape, inviting people from the public into the cloisters that has been adapted, but concretise the university buildings open to the public.

### ☰ 6:2 ¶ 112 in Uni6

Our vision is to understand as good as possible what our surroundings / environment is doing. This is part of it. We are supporting the primary process. It is important to show ourselves as facility company, but also helping and supporting for research and education. It is de basis of who we are.

### ☰ 6:9 ¶ 114 in Uni6

It is about finding answers together. Our Board of Directors really involves everyone and asks for their opinions, let them participate. Whether you are a primary process researcher, a student or supporting. This is really stimulated.

☰ **6:26 ¶ 104 in Uni6**

Practical examples: in greenery, we have a “green vision”.

☰ **7:9 ¶ 119 in Uni7**

Is an innovation plan in this place? Long term plans consider the building’s lifetime etc and what happens if you don’t do it.

☰ **10:1 ¶ 104 in Uni10**

Matrix is a building for challenge based learning. Important to give space for these developments to give a change to grow.

☰ **10:5 ¶ 110 in Uni10**

Living labs; we need project management and directing to be able to do this together.

☰ **10:9 ¶ 111 in Uni10**

The main driver is university driven; you want to be the frontrunner to initiate developments and then find cooperation with the market as soon as possible.

☰ **10:13 ¶ 110 in Uni10**

You need steering.

☰ **10:18 ¶ 94 in Uni10**

This year they are going to compile a landscape vision, with visions on bicycle traffic, car traffic, mobility on campus

☰ **10:19 ¶ 104 in Uni10**

We search in the region how to redevelop ideas from the “delivery rooms” and how to scale-up. So what will be the life-cycle of an innovation and where can we do this and how can the region support this.

☰ **10:25 ¶ 108 in Uni10**

So in this new building we want to start with a project team and a developing team and to see on what subjects we need to find information on innovations, and at the front you have to think already together with users and finances and practical feasibility this about on what innovations you want to focus that will be realised in the implementation.

☰ **10:31 ¶ 104 in Uni10**

A lot of discussion on what makes a startup to move from the delivery rooms to the testing and where it should land and how the region should support those innovations.

☰ **13:8 ¶ 111 in Uni13**

We as managers are the client of this research, and you are the example of a living lab by researching this. How can we get the knowledge on the campus as soon as possible to our own campus managers

☰ **13:20 ¶ 102 in Uni13**

I really like prototyping and piloting. Then you can learn what it does in your organisation. What fits with our people, culture, tribes. Not everything is functional and then you don't have to continue. But it is a pilot so you can stop with it.

☰ **13:21 ¶ 109 in Uni13**

This has to be decided in the front, otherwise many innovations will not succeed.

## 0 Codes

◇ ○ **Goal: Internal REM Feasible**

### 2 Groups:

Diff: Target / Diff: Working practices

### 9 Quotations:

☰ **1:8 ¶ 114 in Uni1**

Sometimes research is useless (I know it is better in times of corona to clean every doorhandle every time, but it is not feasible). It is about possibility vs added value vs feasibility.

☰ **6:18 ¶ 116 in Uni6**

Also with subsidies and time. If it takes too long the subsidy can be gone. When space is immediately needed, we have space off campus. But then all of a sudden people don't need the space anymore; the necessity is gone. Is it really necessary if they do not accept space that is 5 mins away? This triggers us to really ask if the space is necessary, or if we can find another solution. Will they find more creative solutions then? Location vs. m2

☰ **7:12 ¶ 105 in Uni7**

That is what I do more often. However when it is in the research phase, I do not. Feasibility should be shown, and if the money is available we could facilitate, but not really.

☰ **7:21 ¶ 104 in Uni7**

It is hard to connect researchers in new built or renovation projects. Research is on the side of what is possible and is not applicable enough for real life. Not feasible enough sometimes.

 **7:22 ¶ 115 in Uni7**

Sometimes there are very progressive ideas for innovations. As long as it not hinders the normal operations, we facilitate it

 **7:38 ¶ 106 in Uni7**

So many barriers in the testing on applicability. We want to apply them. And if we had more budget for innovation we could facilitate it more. We have to find a two-way street.

 **7:41 ¶ 105 in Uni7**

If it was the case that it was almost completed and we are asked to be the launching costumer, I would do it.

 **8:21 ¶ 107 in Uni8**

You need to find a balance between facilitating research, education and valorisation, and on the other hand the ‘stones’ and facilities to contribute to this. So you need to find the space to connect the primary process with support services

 **8:38 ¶ 109 in Uni8**

One example where the match between campus and researchers did not work, was: the energy transition in the Urgenda and Jan Hofmans: the ideas were so innovative that we could not implement it in our campus development. The other way around, he could not permit his self as a scientist on the level we wanted to work. (living lab on human resources).

## 0 Codes

 **○ Goal: Internal REM Optimization**

### 2 Groups:

Diff: Target / Diff: Working practices

### 4 Quotations:

 **1:1 ¶ 115 in Uni1**

We are constantly looking for improvements, since this is part of our duties. For example Biophotonica; roadmap.

 **1:22 ¶ 114 in Uni1**

We are the intern real estate and facility department. So we need to find the added value and make this happen.

 **1:38 ¶ 113 in Uni1**

It is important to optimise all the things you have to deal with.

 **9:21 ¶ 60 in Uni9**

Question of timing with the hybrid energy net project. If the timing is correct then the project is good. The change process takes so long that no crisis lasts long enough. Extreme circumstances facilitate decision making.

**0 Codes**

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## **Diff: Time orientation**

**5 Codes:**

 ○ **Barrier: Decision frequency**

**1 Groups:**

Diff: Time orientation

**0 Quotations**

**0 Codes**

 ○ **Barrier: Planning horizon of the study**

**2 Groups:**

Diff: Time orientation / Visionary Innovation

**1 Quotations:**

 **1:35 ¶ 111 in Uni1**

In that sense, the universities of applied science and TNO are better partners for planning the future horizon

**0 Codes**

 ○ **Barrier: Practical timing**

**1 Groups:**

Diff: Time orientation

**9 Quotations:**

 **1:43 ¶ 103 in Uni1**

My trick is to make people enthusiastic and to establish personal contact. At the moment I am busy with a new project in which several groups are involved. I want to create enthusiasm with the right people, make personal contact and then propose a concrete proposal to the board. We have a real time environment, 1000nds of people and a beautiful location to use.

☰ **1:44 ¶ 108 in Uni1**

Another difference between researchers and managers is that researchers want to maximize 1 thing, while managers want to optimise 10 at the same time.

☰ **1:45 ¶ 112 in Uni1**

The difference between applied and fundamental research is the time you need it; applied fast, and fundamental in the future.

☰ **2:41 ¶ 117 in Uni2**

A barrier can be the extra time you have to invest from both sides. Also for technical universities it is more their nature to test innovations. There is also a barrier in respect between the primary and secondary processes (for instance someone who was promoted in Real Estate was not taken seriously by a ‘science person’).

☰ **6:29 ¶ 116 in Uni6**

Also innovations need to happen very fast. Creating real estate takes quite some time. So for instance for installations we can not provide space immediately. So time / speed. Also with subsidies and time. If it takes too long the subsidy can be gone. When space is immediately needed, we have space off campus. But then all of a sudden people don't need the space anymore; the necessity is gone. Is it really necessary if they do not accept space that is 5 mins away? This triggers us to really ask if the space is necessary, or if we can find another solution. Will they find more creative solutions then? Location vs. m2.

☰ **9:45 ¶ 25 in Uni9**

Barrier: Many different departments and ideas, you get stuck. That water everything down. ICT, end user, they all need to spend time and energy to make things work. You need to pull and push them to get involved, that is difficult. When it becomes complicated people lose the enthusiasm and the drive, so it is really important to have someone who is assigned the specific responsibility to keep an eye on the implementation of innovations or driving a specific new project, because otherwise it will not go through the process and be implemented.

☰ **9:46 ¶ 52 in Uni9**

We have many people busy with some research on sustainability, but we don't really use the knowledge, but this takes up a lot of their time and they did not make that commitment to give such time. The gap between the primary and secondary processes

are huge. The implementation on campus is somewhat slower. Really a different world.

 **9:47 ¶ 59 in Uni9**

Campus and facilities do what they do. The college of management has to indicate that this is a priority and has to be done. If you go into a discussion and you look for a solution is very different than when everyone is not really committed. If everyone has the time, the task, the priority and the assignment they tend to find the solutions.

 **12:33 ¶ 116 in Uni12**

We miss time and expertise to set up successful models to bring this expertise to live. There are many ideas and initiatives from the Universiteitskwartier with people who would really like to do this. For example with exposition spaces or studios, or start-ups. But they don't know where to start, and how to find a successful business model. In the future we would like to have knowledge brokers who can make connections between all these four campuses / ecosystems. Make synergies and co-creations.

## 0 Codes

 ○ **Barrier: Time spent on experiments**

### 1 Groups:

Diff: Time orientation

### 4 Quotations:

 **2:30 ¶ 117 in Uni2**

A barrier can be the extra time you have to invest from both sides

 **7:4 ¶ 116 in Uni7**

. When you want to involve a researcher in this, you need one more year extra

 **9:2 ¶ 52 in Uni9**

but we don't really use the knowledge, but this takes up a lot of their time and they did not make that commitment to give such time

 **13:24 ¶ 105 in Uni13**

Normally we do not have the time that the scientists have, but that did succeed in this innovation. So the science provided a solution in a really short time. Normally that is not the case.

## 0 Codes

 ○ **Barrier: Timing of the research and the need**

## 1 Groups:

Diff: Time orientation

## 14 Quotations:

### 1:7 ¶ 107 in Uni1

It can also have to do with timing

### 2:15 ¶ 104 in Uni2

A barrier is the different pace; at the operation side we mostly want to go faster because we want results and continue. The pace of research is very different. The tempo of the study and the required outset makes it difficult (different frequency).

### 3:21 ¶ 101 in Uni3

One professor tried to implement a new way of working. But that did not succeed because he got a new job. Other colleagues were relieved that they did not had to participate in this new way of working.

### 4:19 ¶ 108 in Uni4

Also, the agenda of the research program does not match in time

### 6:8 ¶ 116 in Uni6

Also innovations need to happen very fast. Creating real estate takes quite some time. So for instance for installations we can not provide space immediately. So time / speed

### 8:26 ¶ 108 in Uni8

We can not find each other. We tried to. We are so busy, that we do not take the time to find the scientists.

### 9:22 ¶ 52 in Uni9

. The implementation on campus is somewhat slower. Really a different world.

### 9:33 ¶ 17 in Uni9

If there is no specific moment, we need to create a moment to install implementations.

### 9:40 ¶ 28 in Uni9

Tiny forest is an example of a project that did not work. Scientists wanted this on campus, appointed people and assigned a place. But this lead to a loss of parking spots, and we missed the deadlines and it did not work because we did not know about the deadline.

### 11:1 ¶ 107 in Uni11

The impatience and hurry of a manager does not match with researchers' requirements

☰ **12:17 ¶ 116 in Uni12**

We miss tim

☰ **13:2 ¶ 108 in Uni13**

They can say; it takes a very long time so we are really not there yet.

☰ **13:24 ¶ 105 in Uni13**

Normally we do not have the time that the scientists have, but that did succeed in this innovation. So the science provided a solution in a really short time. Normally that is not the case.

☰ **13:29 ¶ 110 in Uni13**

It is an accelerator, but you have to find the timing on when to share what information with wh

**0 Codes**

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◇ **Diff: Type of involvement**

**14 Codes:**

◇ ○ **Barrier: Engaged only with those academics driving it**

**4 Groups:**

Diff: Motivation / Diff: Type of involvement / Strategic / Strat-sub: Assigned Responsibility

**2 Quotations:**

☰ **2:3 ¶ 108 in Uni2**

We actually only speak to people who want to do things on campus.

☰ **10:12 ¶ 109 in Uni10**

Regarding the point of innovation is not seen by academics; science has to be challenged and they have to promote their own projects to show what opportunities there are and how we can cooperate.

**0 Codes**

◇ ○ **Barrier: Lack of project initiators**

**4 Groups:**

Diff: Type of involvement / Strategic / Strat-Func-sub: mismatch / Strat-sub: Assigned Responsibility

## 2 Quotations:

### 1:6 ¶ 119 in Uni1

. It is about the initiators who have to possibility to use this money

### 3:9 ¶ 98 in Uni3

The cooperation with the municipality first was very low. But then they got new board and the university did as well, so we wanted to link the municipality and the university

## 0 Codes

### ○ **Barrier: Respect between 'Operations' and 'Academic' research**

## 2 Groups:

Diff: Type of involvement / Strategic

## 1 Quotations:

### 2:1 ¶ 117 in Uni2

There is also a barrier in respect between the primary and secondary processes (for instance someone who was promoted in Real Estate was not taken seriously by a “science person”).

## 0 Codes

### ○ **Barrier: Role of the researcher**

## 2 Groups:

Diff: Type of involvement / Strategic

## 2 Quotations:

### 1:40 ¶ 109 in Uni1

Do it anywhere except on your own campus; role fading. It can be frustrating for the board to not be able to use the expertise on their own university because of this conflicts of interests.

### 10:39 ¶ 106 in Uni10

Partly the role changing (academic becomes part of campus team).

## 0 Codes

## ◇ ○ **Barrier: Too many stakeholders**

### **2 Groups:**

Diff: Type of involvement / Strategic

### **5 Quotations:**

#### ☰ 5:17 ¶ 117 in Uni5

Then they immediately said; there are so many ideas within the university to research that we cannot find where to start. We are willing to think along, and you can interview us for our knowledge, but we are not going to commit ourselves to this. I was really disappointed and we did not manage to get this done.

#### ☰ 9:28 ¶ 14 in Uni9

But the discussions were so intense, comments and complains and in the end it was installed in only a part of the campus

#### ☰ 9:30 ¶ 25 in Uni9

Many different departments and ideas, you get stuc

#### ☰ 9:32 ¶ 14 in Uni9

We spent in the end too much energy on discussion for the implementation and the.

#### ☰ 9:42 ¶ 25 in Uni9

That water everything down. ICT, end user, they all need to spend time and energy to make things work.

### **0 Codes**

## ◇ ○ **Barriers: Continuity/Assigning responsibility**

### **3 Groups:**

Diff: Type of involvement / Strategic / Strat-sub: Assigned Responsibility

### **10 Quotations:**

#### ☰ 1:3 ¶ 118 in Uni1

However continuity is an important barrier, especially in students initiatives

#### ☰ 3:21 ¶ 101 in Uni3

One professor tried to implement a new way of working. But that did not succeed because he got a new job. Other colleagues were relieved that they did not had to participate in this new way of working.

☰ **8:16 ¶ 94 in Uni8**

however the barriers kill the decisiveness,

☰ **8:19 ¶ 91 in Uni8**

On top of that, the driving factor (teacher on the university of applied sciences / HBO) became ill and could not be involved in the project any longer. So the project stopped and became an empty, abandoned house

☰ **8:29 ¶ 104 in Uni8**

Then you need a solid ground, so that it will not fail if this one person leaves

☰ **8:33 ¶ 94 in Uni8**

They have to remain throughout the process. Even the most enthusiast person can withdraw because things don't go as they should. Many frustrations.

☰ **10:10 ¶ 97 in Uni10**

So: "role fading" as barrier; who is who, who bares the risk of the product? Who has what responsibility?

☰ **10:34 ¶ 97 in Uni10**

who represents what role?

☰ **12:7 ¶ 114 in Uni12**

who feels responsible for the campus?

☰ **13:11 ¶ 99 in Uni13**

business continuity

## **0 Codes**

◇ ○ **Driver: Co-operation between departments**

### **3 Groups:**

Diff: Motivation / Diff: Type of involvement / Strat-sub: Vision

### **5 Quotations:**

☰ **1:30 ¶ 103 in Uni1**

in which several groups are involved

☰ **1:32 ¶ 102 in Uni1**

, designed in cooperation with geology and it is in use

 **2:31 ¶ 118 in Uni2**

Sustainability is no charity. It is a game to get this together feasible, Copernicus institute, bringing all these different things together

 **7:19 ¶ 112 in Uni7**

TechMed centre: this is new. One building in which all health-oriented educations are placed. Just like what we wanted with robotica; put them together for mutual influence

 **7:44 ¶ 104 in Uni7**

For us this is useful as well, because we will see de sustainability of these buildings. So this is someone of the research field who takes part in the realisatio

**0 Codes**

 **○ Driver: Entrepreneur centre participation**

**3 Groups:**

Diff: Type of involvement / Strat-sub: Assigned Responsibility / Visionary Innovation

**1 Quotations:**

 **3:24 ¶ 96 in Uni3**

We also work with the municipality on a business school in the city; young professional campus. For young entrepreneurs. We take part in this.

**0 Codes**

 **○ Driver: Network of partners**

**2 Groups:**

Diff: Type of involvement / Visionary Innovation

**27 Quotations:**

 **3:10 ¶ 96 in Uni3**

Mindlabs is somethings we do together with the faculties, municipality and some other parties we work with.

 **3:14 ¶ 97 in Uni3**

We also have a ‘city deal’. We have meetings with stakeholders in the surroundings.

 **4:2 ¶ 101 in Uni4**

Living lab Tapijn (2103) UM zou de gebouw inricht, samen met de provincie en de gemeente. De opstellen gaat naar de provincie. De ambitie was dat dit een mooie duurzame project zou worden.

☰ **4:5 ¶ 106 in Uni4**

Gemeente Maastricht BREAAAM well-being building (2013-2021). Building standards – 3 research groups. Who was involved?

☰ **4:8 ¶ 96 in Uni4**

And the campaign redevelopment was linked to research programs.

☰ **4:13 ¶ 100 in Uni4**

The UM participated mostly as a research organisation

☰ **4:22 ¶ 107 in Uni4**

Piet Eikels smart finance. Mark van Dichtenbeld were involved in the process for smart finance. NB NB

☰ **4:27 ¶ 104 in Uni4**

We said that we wanted to monitor what it would mean to redevelop a building like this, and also to measure if the users experience what we are putting in this building. It is a research project for 3 research groups at the university

☰ **5:10 ¶ 120 in Uni5**

The building has a kind of chimney effect (Schoorsteenwerking) which is really unique. A researcher from Utrechts comes here to show this is an example of how to make buildings

☰ **5:21 ¶ 120 in Uni5**

Several scientists were involved in this; they researched how the solar panels should be formed on the roof

☰ **5:25 ¶ 126 in Uni5**

With Agro Food there is a large potato manufacturer with an own R&D department on the Zernike Campus. We have a new chemistry indoor lab, the energy academy is an example of this. These are some examples in which we work together with companies, that really work.

☰ **7:25 ¶ 112 in Uni7**

There are also companies that develop things here. This is a breeding ground for medical innovation.

☰ **7:27 ¶ 107 in Uni7**

When surrounding faculty pays rent, we could also use this as a display for the testing of real life water treatment. Also the Waterboard was informed, they want to pay as well. Like that, we can realise the lab. You need some smart techniques to realise something like this. Financial feasibility – bringing many partners into the network

 **7:28 ¶ 109 in Uni7**

The researcher has contact with the ROC. So the ROC is the users, on campus, and the ideas are born on campus. The research group has more connections so the design is not necessarily for the external groups.

 **10:2 ¶ 104 in Uni10**

We are in the brainport region and in collaboration

 **10:9 ¶ 111 in Uni10**

The main driver is university driven; you want to be the frontrunner to initiate developments and then find cooperation with the market as soon as possible.

 **10:15 ¶ 99 in Uni10**

There is a lot of research there at the moment by the faculties

 **10:16 ¶ 94 in Uni10**

. TU/e is situated near the station, and we have a lot of research on the campus at several faculties on mobility

 **11:11 ¶ 99 in Uni11**

. It is about who knows who

 **11:14 ¶ 99 in Uni11**

He has many connections.

 **12:1 ¶ 111 in Uni12**

Ecosystems; we want to connect the science, the outside world and campus development. The campus organisation tries to strengthen these connections between researchers and campus. We try to find this connection from the content, starting with the knowledge centres inside the faculties

 **12:13 ¶ 109 in Uni12**

This is an example of how we use the “Universiteitskwartier” as a living lab for research. With this we showcase what our expertise is.

 **12:15 ¶ 102 in Uni12**

We do take part in all kinds of projects with the City Amsterdam as a living lab.

📄 **12:19 ¶ 110 in Uni12**

and you can make this visible by involving people.

📄 **12:32 ¶ 102 in Uni12**

There is a large network in Amsterdam with a lot of experiments

📄 **13:5 ¶ 112 in Uni13**

Besides Yes Delft and Next Delft we have our partners.

📄 **13:9 ¶ 110 in Uni13**

. We could make more use of YES!Delft and NextDelft.

### 0 Codes

◇ ○ **Driver: Project management skills on the academic side**

#### 2 Groups:

Diff: Type of involvement / Diff: Working practices

#### 3 Quotations:

📄 **2:23 ¶ 103 in Uni2**

He also has the responsibility to manage his own projects. He has his own drive. He is engaged and drives it and therefore it is happening.

📄 **7:37 ¶ 117 in Uni7**

. But she left. A tiny houses project was one of the only things she did. She was no project leader, so when the project was realised she handed it over to CFM. But it is not their task either. So this was not the solution either.

📄 **13:12 ¶ 106 in Uni13**

Deborah Nas does things for the long run, but also provides practical tools in between. The tool is of value then, even if it has to scientific value yet.

### 0 Codes

◇ ○ **Solution: Multiple research groups**

#### 3 Groups:

Diff: Type of involvement / Strat-sub: Assigned Responsibility / Visionary Innovation

#### 1 Quotations:

📄 **5:18 ¶ 120 in Uni5**

The energy academy is a building that is build with one thought: to make a sustainable as possible building. The next step is that researchers look at cell biology and plants and use this in the building, instead of mechanical ventilation. That is the next step.

## 0 Codes

### ◇ ○ **Solution: Personal contact**

#### 1 Groups:

Diff: Type of involvement

#### 1 Quotations:

##### ☰ 1:23 ¶ 103 in Uni1

make personal contact

## 0 Codes

### ◇ ○ **Solution: Research coordinator/portfolio matcher**

#### 3 Groups:

Diff: Type of involvement / Strat-sub: Assigned Responsibility / Visionary Innovation

#### 19 Quotations:

##### ☰ 2:2 ¶ 106 in Uni2

We have to facilitate to find the match between the two worlds. So we need a portfolio manager with innovation demand and supply

##### ☰ 2:5 ¶ 107 in Uni2

It can be better: It would help to have the interface between the two worlds clear.

##### ☰ 2:38 ¶ 106 in Uni2

We paid a research coordinator.

##### ☰ 5:1 ¶ 127 in Uni5

So we have a third party, but I think we should be more involved in them to be able to steer more in business development and housing.

##### ☰ 6:6 ¶ 113 in Uni6

We have almost managed all services centrally from the facility company. Every knowledge unity has a location manager.

##### ☰ 6:20 ¶ 113 in Uni6

This is the interlocutor from a faculty. This person tries to find the match between demand and supply, and to share the knowledge. They are the bridge. Since the integration of the facility domain, this really improved.

 **7:5 ¶ 118 in Uni7**

Perhaps a department is useful where the budget, project planning, facilitation and matchmaking is important.

 **7:16 ¶ 118 in Uni7**

Academic match because of publication requirement might be difficult. This has been addressed to some extent, which is good for living labs.

 **7:35 ¶ 117 in Uni7**

We assigned innovation manager campus some time ago. The researchers don't know where to go, so then we had the matchmaker. But she left. A tiny houses project was one of the only things she did. She was no project leader, so when the project was realised she handed it over to CFM. But it is not their task either. So this was not the solution either.

 **9:36 ¶ 25 in Uni9**

so it is really important to have someone who is assigned the specific responsibility to keep an eye on the implementation of innovation

 **10:5 ¶ 110 in Uni10**

Living labs; we need project management and directing to be able to do this together.

 **10:23 ¶ 97 in Uni10**

It is really about the finding the match in the project planning and the money, and to combine this with the research ambitions.

 **10:27 ¶ 99 in Uni10**

ng biobased materials, installations). We managed to have a part reserved for innovation within the investment. So we organised this beforehand. One of the success factors; we had a project manager who coordinated all. Driver why it succeeded. Or a solution to overcome one of the barriers (role fading).

 **10:38 ¶ 103 in Uni10**

Solution: The product is accepted but there is role change. Living labs project manager is important and who coordinates is.

 **11:3 ¶ 103 in Uni11**

Also there is always needed intermediary organisations between the two worlds.

 **11:4 ¶ 107 in Uni11**

There is an intermediary needed between scientists and managers. We have consultants

 **11:12 ¶ 107 in Uni11**

We need an equalizer or tuner. Knowledge broker.

 **12:2 ¶ 116 – 117 in Uni12**

In the future we would like to have knowledge brokers who can make connections between all these four campuses / ecosystems. Make synergies and co-creations.

What are the skills necessary to facilitate the network management and coordinator role?

 **12:13 ¶ 109 in Uni12**

This is an example of how we use the ‘Universiteitskwartier’ as a living lab for research. With this we showcase what our expertise is.

**0 Codes**

 **○ Solutions: Link projects to research groups (continuity)**

**2 Groups:**

Diff: Type of involvement / Visionary Innovation

**3 Quotations:**

 **1:2 ¶ 118 in Uni1**

One of the lessons learned is to link them to a research group.

 **1:15 ¶ 118 in Uni1**

Polderdak we also linked students to researchers and this helps for continuity on the long term.

 **5:27 ¶ 120 in Uni5**

The energy academy is a building that is built with one thought: to make a sustainable as possible building. The next step is that researchers look at cell biology and plants and use this in the building, instead of mechanical ventilation. That is the next step.

**0 Codes**

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 **Diff: Working practices**

## 26 Codes:

### ◇ ○ **Barrier: Academic territorialism**

#### **3 Groups:**

Diff: Motivation / Diff: Working practices / Strategic

#### **7 Quotations:**

##### ☰ **1:13 ¶ 122 in Uni1**

“Not in my academic backyard. “

##### ☰ **1:19 ¶ 110 in Uni1**

Research can show what does not go right. And researchers can react narrow specified on their own topic: ‘I proved that it does not work like that, why don’t you change it?!’ There is no broadening.

##### ☰ **1:28 ¶ 108 in Uni1**

Another difference between researchers and managers is that researchers want to maximize 1 thing, while managers want to optimise 10 at the same time.

##### ☰ **8:4 ¶ 107 in Uni8**

Now it is even hard to include the influence of science in our calamity team. It is about the crossover between the reality to run a university versus the in-house knowledge that can help with this.

##### ☰ **8:26 ¶ 108 in Uni8**

We can not find each other. We tried to. We are so busy, that we do not take the time to find the scientists.

##### ☰ **8:30 ¶ 111 in Uni8**

On top of that there is a feeling of ‘being better’ and status from the academy relative to support services. Also people do not see how complex the decisions are we need to take. Also it is hard to align the people. One faculty director, oh, now I have more insight into the difficult decisions that has to be made. Barrier: academics have no insight into the complex decisions made by the practitioners as supporting medewerkers and also very little respect for it sometimes

##### ☰ **12:23 ¶ 108 in Uni12**

UvA has a lot of knowledge on monument management, but the own professors of the UvA are the biggest critics when it comes to the campus or the city. This is not the help you are looking for. So it provides more complexity.

## 0 Codes

### ◇ ○ **Barrier: Different way of working**

#### 1 Groups:

Diff: Working practices

#### 5 Quotations:

##### ☰ 5:33 ¶ 117 in Uni5

Before corona, we had some really nice ideas. However, they did not really come through because everyone really is in their own corner. We then set up the Task Force Hybrid Working and we involved several scientists in this. In particular behavioural scientists and asked them what their barriers were, and if they could set up a program. Then they immediately said; there are so many ideas within the university to research that we cannot find where to start. We are willing to think along, and you can interview us for our knowledge, but we are not going to commit ourselves to this. I was really disappointed and we did not manage to get this done.

##### ☰ 10:22 ¶ 96 in Uni10

It is about science versus practical planning. It is hard to combine.

##### ☰ 10:30 ¶ 110 in Uni10

This is not the nature of the scientist.

##### ☰ 12:21 ¶ 113 in Uni12

A barrier is; the research and campus management worlds are very different.

##### ☰ 12:37 ¶ 115 in Uni12

Also faculties really are in their own world of primary process and research. Not yet used to terms like campus development. They don't know what they have and what they can use on the campus. They should be more active and participate more in this. They are focussed on the primary process now and forget how they can improve their own process and connect the primary process with the outside world. Also from our side this space was not there yet. Not known that they might use their primary process on campus – to strengthen their own work. What is the value in using campus in all it's facets. The deeper question of what a faculty would want in terms of their more developed ecosystem is quite difficult.

## 0 Codes

### ◇ ○ **Barrier: Difficult implementation**

#### 2 Groups:

## 2 Quotations:

### 3:5 ¶ 103 in Uni3

We also had a professor who wanted to adjust an elevator. He wanted to see if English or Dutch had influence on your elevator experience. We did this. Now no one knows why this is. This small adjustment already was such a job to realise

### 9:8 ¶ 25 in Uni9

because otherwise it will not go through the process and be implemented

## 0 Codes

### ○ **Barrier: no vision for innovation**

## 4 Groups:

Diff: Working practices / Strat-Func-sub: mismatch / Strat-sub: Vision / Visionary Innovation

## 6 Quotations:

### 8:2 ¶ 104 in Uni8

We would like to have the guts to do this.

### 8:9 ¶ 101 in Uni8

Also you are spending public money. Maybe you should especially spend money on innovation, but it is difficult. So you want to know what you will get for your money. There is not enough space to experiment

### 8:14 ¶ 103 in Uni8

Erasmus is quite compact and clear in this. If you invest more in a proven technology that is proven to save you money, it means that there should be space to test it out. The organization has to have the vision to support innovation.

### 8:36 ¶ 105 in Uni8

We do not have all the power to make these decisions.

### 8:39 ¶ 104 in Uni8

Even the word “innovative” can be repulsive. If we call it “a next step in a development” or “a better concept” or whatever, will be less heavy than terms like innovation or living lab.

### 12:24 ¶ 108 in Uni12

Campus managers; we do not frequently use the expertise from our faculties to use in our own developments at the campus

## 0 Codes

### ◇ ○ **Barrier: One dimensional focus**

#### 3 Groups:

Diff: Working practices / Strategic / Strat-sub: Assigned Responsibility

#### 3 Quotations:

##### ☰ 8:1 ¶ 110 in Uni8

A concession is not OK for them (the researchers, architects in this example). It will always be a concession looking at the people, finances etc.

##### ☰ 10:30 ¶ 110 in Uni10

This is not the nature of the scientist.

##### ☰ 12:23 ¶ 108 in Uni12

UvA has a lot of knowledge on monument management, but the own professors of the UvA are the biggest criticsists when it comes to the campus or the city. This is not the help you are looking for. So it provides more complexity.

## 0 Codes

### ◇ ○ **Barrier: Operation's attitude toward innovations and suggestions**

#### 2 Groups:

Diff: Working practices / Strat-sub: Assigned Responsibility

#### 1 Quotations:

##### ☰ 3:16 ¶ 111 in Uni3

There can also be unsolicited advise from scientists for the business operations. It is vulnerable.

## 0 Codes

### ◇ ○ **Barrier: Silo'ed working**

#### 2 Groups:

Diff: Working practices / Strategic

#### 7 Quotations:

☰ **5:8 ¶ 117 in Uni5**

Before corona, we had some really nice ideas. However, they did not really come through because everyone really is in their own corner

☰ **5:33 ¶ 117 in Uni5**

Before corona, we had some really nice ideas. However, they did not really come through because everyone really is in their own corner. We then set up the Task Force Hybrid Working and we involved several scientists in this. In particular behavioural scientists and asked them what their barriers were, and if they could set up a program. Then they immediately said; there are so many ideas within the university to research that we cannot find where to start. We are willing to think along, and you can interview us for our knowledge, but we are not going to commit ourselves to this. I was really disappointed and we did not manage to get this done.

☰ **8:4 ¶ 107 in Uni8**

Now it is even hard to include the influence of science in our calamity team. It is about the crossover between the reality to run a university versus the in-house knowledge that can help with this.

☰ **8:11 ¶ 111 in Uni8**

On top of that there is a feeling of 'being better' and status from the academy relative to support services. Also people do not see how complex the decisions are we need to take. Also it is hard to align the people. One faculty director, oh, now I have more insight into the difficult decisions that has to be made. Barrier: academics have no insight into the complex decisions made by the practitioners as supporting medewerkers and also very little respect for it sometimes.

☰ **8:13 ¶ 103 in Uni8**

Investment and operation should not be seen separately.

☰ **8:31 ¶ 107 in Uni8**

At the Erasmus university we are in another financial perspective that last year (disregarding corona). The last years we had an ample financial situation, now we do not. Partly due the Commission 'Van Rijn', (the technical universities receive more money than the generic universities). So we have a different strategy for the budget and allocating it

☰ **11:13 ¶ 103 in Uni11**

Where is what university within range of fundamental and engineering.

## **0 Codes**

- ◇ ○ **Barrier: Standard way of working - no innovation space**

### 3 Groups:

Diff: Working practices / Strategic / Strat-sub: Assigned Responsibility

### 3 Quotations:

#### 5:29 ¶ 132 in Uni5

Barriers are from the organisation mainly the governance structure. We do have money on the banks, but the governance structures on how to make use the money.

#### 5:30 ¶ 118 in Uni5

The dynamics were very complex; people are in their standard research programs, with standard things that need to be financed and executed, and if something new comes by in which you can really make a social contribution in a fast way, it stagnated somewhere. Goals are not aligned and then it does not work.

#### 8:3 ¶ 98 in Uni8

The barriers were overcome. You need a system change on the management side. Management innovation. We have a big book with examples and experiences to learn from

### 0 Codes

#### ○ Driver: Clear responsibility

### 2 Groups:

Diff: Working practices / Strat-sub: Assigned Responsibility

### 5 Quotations:

#### 10:40 ¶ 108 in Uni10

There should be someone who feels like he or she is the process-owner of the total. Has to take control over the ambition of the innovation.

#### 13:1 ¶ 109 in Uni13

who decides.

#### 13:7 ¶ 109 in Uni13

The TU has the history of not organising this strictly.

#### 13:17 ¶ 109 in Uni13

who is in the lead,

#### 13:31 ¶ 110 in Uni13

It is an accelerator, but you have to find the timing on when to share what information with who

## 0 Codes

### ◇ ○ Driver: Facilitation is a necessity

#### 2 Groups:

Diff: Working practices / Strat-sub: Assigned Responsibility

#### 3 Quotations:

##### ☰ 1:42 ¶ 119 in Uni1

It is essential to facilitate, otherwise it will not happen and it is from nobody

##### ☰ 7:7 ¶ 110 in Uni7

We want to facilitate researchers that need real life situations (water treatment lab and beneath-surface infra). Therefore we use the campus

##### ☰ 10:8 ¶ 110 in Uni10

. It is also very frustrating for students if there is not steering and no money or discord in the phases for the research projects

## 0 Codes

### ◇ ○ Driver: Focused themes as university strategy

#### 4 Groups:

Diff: Target / Diff: Working practices / Strat-sub: Vision / Visionary Innovation

#### 6 Quotations:

##### ☰ 5:7 ¶ 130 in Uni5

We had a campus in China and South-America. We wanted to be linked to large companies. That driver now totally changed because of the China-affair. Now we are the University of the North; own identity, gas-region, energy-transition region.

##### ☰ 5:14 ¶ 130 in Uni5

We want to have a top position international, but from our own central position.

##### ☰ 5:23 ¶ 129 in Uni5

We also want to develop some "schools" in which people from different disciplines can work together on an entrain theme.

### 6:5 ¶ 103 in Uni6

The themes that we are good at as a university (green, sustainability, biodiversity, socially responsible) are very integrated; we want to make researchers and scientists involved in the beginning of the process, and make them experts.

### 6:22 ¶ 104 in Uni6

“Beter Bereikbaar Wageningen (Better Accessible Wageningen)” is a large political theme.

### 13:21 ¶ 109 in Uni13

This has to be decided in the front, otherwise many innovations will not succeed.

## 0 Codes

### ○ Driver: Learn from failed attempts

#### 2 Groups:

Diff: Risk expectancy / Diff: Working practices

#### 1 Quotations:

### 6:4 ¶ 110 in Uni6

We choose for ourselves, also for when it goes wrong. So we can experience the teething problems ourselves.

## 0 Codes

### ○ Driver: Operations' attitude toward innovation

#### 2 Groups:

Diff: Working practices / Strat-sub: Vision

#### 6 Quotations:

### 2:6 ¶ 106 in Uni2

Sometimes we have a bit extra budget for these kinds of experiments, because we do think it is important. You should be able to facilitate it.

### 2:28 ¶ 104 in Uni2

We are enthusiastic about it and we facilitate some parts of buildings to experiment with this

### 6:7 ¶ 103 in Uni6

Everyone has an opinion about things that happen on the campus on these themes (cutting trees etc.). So if we involve them in the beginning, they can give input etcetera throughout the process. So we do not experience barriers here. If we ask researchers to cooperate and participate, they say yes.

 **6:9 ¶ 114 in Uni6**

It is about finding answers together. Our Board of Directors really involves everyone and asks for their opinions, let them participate. Whether you are a primary process researcher, a student or supporting. This is really stimulated.

 **6:11 ¶ 105 in Uni6**

The gap between the management side and the practice is not so big, because we as managers also know things like a new road have to comply with sustainability ideas. We know about the scientific values.

 **6:13 ¶ 111 in Uni6**

We are approached as users frequently.

## 0 Codes

 **○ Driver: Operations drive innovation**

### 2 Groups:

Diff: Working practices / Strat-sub: Vision

### 5 Quotations:

 **2:32 ¶ 119 in Uni2**

. The idea is from us, but we take many comments in.

 **4:12 ¶ 108 in Uni4**

There were no barriers since it was demand-driven

 **4:16 ¶ 102 in Uni4**

We asked the university for researchers who had research programs on sustainable real estate. What do they have to offer? What input can they bring to make the redevelopment more sustainable.

 **4:17 ¶ 104 in Uni4**

This is a real living lab; not just evaluating, but also giving input to what we think is justified for the BREAAAM and well-building certificate

 **4:23 ¶ 96 in Uni4**

Operations posed the question – Can you help us.

### 0 Codes

#### ◇ ○ Driver: Organic growth

#### 2 Groups:

Diff: Working practices / Visionary Innovation

#### 3 Quotations:

##### ☰ 3:17 ¶ 104 in Uni3

We invested in this by all the schools and at the moment we are on the point that we can make the lab 4 times bigger

##### ☰ 3:27 ¶ 104 in Uni3

We started this at small and then made it bigger.

##### ☰ 8:10 ¶ 104 in Uni8

It can even be on a small scale. That would help for new innovative ideas

### 0 Codes

#### ◇ ○ Driver: Pragmatic academic

#### 1 Groups:

Diff: Working practices

#### 2 Quotations:

##### ☰ 2:19 ¶ 102 in Uni2

We had the luck that this prof was also pragmatic.

##### ☰ 13:12 ¶ 106 in Uni13

Deborah Nas does things for the long run, but also provides practical tools in between. The tool is of value then, even if it has to scientific value yet.

### 0 Codes

#### ◇ ○ Driver: Project management skills on the academic side

#### 2 Groups:

Diff: Type of involvement / Diff: Working practices

### 3 Quotations:

#### 2:23 ¶ 103 in Uni2

He also has the responsibility to manage his own projects. He has his own drive. He is engaged and drives it and therefore it is happening.

#### 7:37 ¶ 117 in Uni7

. But she left. A tiny houses project was one of the only things she did. She was no project leader, so when the project was realised she handed it over to CFM. But it is not their task either. So this was not the solution either.

#### 13:12 ¶ 106 in Uni13

Deborah Nas does things for the long run, but also provides practical tools in between. The tool is of value then, even if it has no scientific value yet.

### 0 Codes

#### ○ Driver: Systematic approach

### 1 Groups:

Diff: Working practices

### 6 Quotations:

#### 10:5 ¶ 110 in Uni10

Living labs; we need project management and directing to be able to do this together.

#### 10:9 ¶ 111 in Uni10

The main driver is university driven; you want to be the frontrunner to initiate developments and then find cooperation with the market as soon as possible.

#### 10:17 ¶ 108 in Uni10

This requires a very strict regime.

#### 10:21 ¶ 108 in Uni10

er. By doing that, they want to prevent a lot of organizational barriers. Assessment of what are the opportunities. There has to be a good matchmakers (demand and supply); dragons den.

#### 10:25 ¶ 108 in Uni10

So in this new building we want to start with a project team and a developing team and to see on what subjects we need to find information on innovations, and at the front you have to think already together with users and finances and practical feasibility this

about on what innovations you want to focus that will be realised in the implementation.

 **10:35 ¶ 109 in Uni10**

There has to be clarity , otherwise there will be frustrations.

**0 Codes**

 **○ Driver: Whole cycle innovation**

**1 Groups:**

Diff: Working practices

**1 Quotations:**

 **13:18 ¶ 110 in Uni13**

We have the whole cycle of science, innovation and implementation on our campus and to our access.

**0 Codes**

 **○ Ecosystem changes**

**1 Groups:**

Diff: Working practices

**4 Quotations:**

 **5:28 ¶ 4 in Uni5**

De trend is techniek

 **5:31 ¶ 3 in Uni5**

Wij zijn bijna een technische universiteit aan het worden.

 **12:1 ¶ 111 in Uni12**

Ecosystems; we want to connect the science, the outside world and campus development. The campus organisation tries to strengthen these connections between researchers and campus. We try to find this connection from the content, starting with the knowledge centres inside the faculties

 **12:9 ¶ 114 in Uni12**

The ecosystem is therefore so important to look for the links between the area development, and faculties.

## 0 Codes

### ◇ ○ Goal: Internal REM Feasible

#### 2 Groups:

Diff: Target / Diff: Working practices

#### 9 Quotations:

##### ☰ 1:8 ¶ 114 in Uni1

Sometimes research is useless (I know it is better in times of corona to clean every doorhandle every time, but it is not feasible). It is about possibility vs added value vs feasibility.

##### ☰ 6:18 ¶ 116 in Uni6

Also with subsidies and time. If it takes too long the subsidy can be gone. When space is immediately needed, we have space off campus. But then all of a sudden people don't need the space anymore; the necessity is gone. Is it really necessary if they do not accept space that is 5 mins away? This triggers us to really ask if the space is necessary, or if we can find another solution. Will they find more creative solutions then? Location vs. m<sup>2</sup>

##### ☰ 7:12 ¶ 105 in Uni7

That is what I do more often. However when it is in the research phase, I do not. Feasibility should be shown, and if the money is available we could facilitate, but not really.

##### ☰ 7:21 ¶ 104 in Uni7

It is hard to connect researchers in new built or renovation projects. Research is on the side of what is possible and is not applicable enough for real life. Not feasible enough sometimes.

##### ☰ 7:22 ¶ 115 in Uni7

Sometimes there are very progressive ideas for innovations. As long as it not hinders the normal operations, we facilitate it

##### ☰ 7:38 ¶ 106 in Uni7

So many barriers in the testing on applicability. We want to apply them. And if we had more budget for innovation we could facilitate it more. We have to find a two-way street.

##### ☰ 7:41 ¶ 105 in Uni7

If it was the case that it was almost completed and we are asked to be the launching customer, I would do it.

### 8:21 ¶ 107 in Uni8

You need to find a balance between facilitating research, education and valorisation, and on the other hand the ‘stones’ and facilities to contribute to this. So you need to find the space to connect the primary process with support services

### 8:38 ¶ 109 in Uni8

One example where the match between campus and researchers did not work, was: the energy transition in the Urgenda and Jan Hofmans: the ideas were so innovative that we could not implement it in our campus development. The other way around, he could not permit his self as a scientist on the level we wanted to work. (living lab on human resources).

## 0 Codes

### ○ Goal: Internal REM Optimization

#### 2 Groups:

Diff: Target / Diff: Working practices

#### 4 Quotations:

### 1:1 ¶ 115 in Uni1

We are constantly looking for improvements, since this is part of our duties. For example Biophotonica; roadmap.

### 1:22 ¶ 114 in Uni1

We are the intern real estate and facility department. So we need to find the added value and make this happen.

### 1:38 ¶ 113 in Uni1

It is important to optimise all the things you have to deal with.

### 9:21 ¶ 60 in Uni9

Question of timing with the hybrid energy net project. If the timing is correct then the project is good. The change process is takes so long that no crises lasts long enough. Extreme circumstances facilitate decision making.

## 0 Codes

### ○ InnFeature: Compatability

#### 2 Groups:

Diff: Working practices / Innovation features

## 5 Quotations:

### 2:44 ¶ 104 in Uni2

Energy intensive materials and circularity is studied in another study. With another prof and his team we look at opportunities to redevelop our real estate. Looking at possibilities coming from the refuse streams and other materials that can be used in the buildings, also looking at development of models. In this, student also do some research. Bio inspired design; can we develop a façade that is based on biology (fur of animals?). We are enthusiastic about it and we facilitate some parts of buildings to experiment with this. When you allow people to experiment, you have to keep in mind that an option is that it will fail. It succeeds or fails by the people. There has to be intrinsic motivation. A barrier is the different pace; at the operation side we mostly want to go faster because we want results and continue. The pace of research is very different. The tempo of the study and the required outset makes it difficult (different frequency). We often have to deal with how to practically implement the innovations. We do not let the practical implementation limitations prevent us from starting. You have to keep track of what you hope, but bring your best suggestions and match that with the expectations of the researcher. We have the drive to test because we also want to help ourselves further (value innovation) and therefore we don't just want to do successful projects without ever experimenting. You can't count on the quality. Always looking for win-win solutions to help ourselves also a step further.

### 3:31 ¶ 108 in Uni3

Sustainability factory – how sustainability is incorporated into the campus. Law, economy and theology, change management is perhaps something where the campus can contribute.

### 7:38 ¶ 106 in Uni7

So many barriers in the testing on applicability. We want to apply them. And if we had more budget for innovation we could facilitate it more. We have to find a two-way street.

### 7:50 ¶ 113 in Uni7

Bicycle: tested on campus by users. We also had an electrical bike with solar cells on the wheels. These could be used by campus users who gave a review on the use of the bicycle. We also had a bicycle stand with solar panels on the roof. Off grid bicycle stand we had to change it because people wanted it to be more safe. This was not used for research. I put money for real estate in something that is not used by the researchers, because there was no fence placed around it (so accessible for everyone, not exclusively for the researchers). So this makes me very hesitant to do things like this. This keeps us from doing it another time. We learned that involving researchers ourselves does NOT work. We organise it the other way around; let the researchers involve us.

### 11:20 ¶ 97 in Uni11

We do not really want to test new things in our buildings. In Rotterdam they are going to build something with a nice ventilation concept (Earth, Wind & Fire) and then I first call the consultant. Examples like the Energy Academy in Groningen are really nice, and I try to show this to my colleagues as well. We try to learn from each other and look what concept we can implement. For a large part innovation in our buildings comes from our consultants, not really from our own people.

## 0 Codes

### ◇ ○ REM role as Researcher

#### 2 Groups:

Diff: Working practices / Visionary Innovation

#### 6 Quotations:

##### ☰ 2:14 ¶ 116 in Uni2

Future learning spaces: innovative character; small scale education and interaction. It is a joint project from operation side to support research and education. Where are possibilities? Let's define design together and apply this, and use, evaluate and adjust this. Plan do check act. More flexibility and extra ICT to do more digital. It is a process from the beginning to the end, and learn from this to see how we can even do it better.

##### ☰ 5:11 ¶ 127 in Uni5

We have a really small campus management team (12 man), so we can not know what happens in every faculty from business management.

##### ☰ 6:2 ¶ 112 in Uni6

Our vision is to understand as good as possible what our surroundings / environment is doing. This is part of it. We are supporting the primary process. It is important to show ourselves as facility company, but also helping and supporting for research and education. It is de basis of who we are.

##### ☰ 10:39 ¶ 106 in Uni10

Partly the role changing (academic becomes part of campus team).

##### ☰ 13:3 ¶ 107 in Uni13

Ventilation in the lecture halls are important, but there are issues with the research methods.

##### ☰ 13:10 ¶ 111 in Uni13

We as managers are the client of this research, and you are the example of a living lab by researching this. How can we get the knowledge on the campus as soon as possible to our own campus managers.

## 0 Codes

### ◇ ○ **Solution: education on decision-making process**

#### 1 Groups:

Diff: Working practices

#### 1 Quotations:

##### 🍷 6:19 ¶ 107 in Uni6

So find where you can agree on; you will provide them some support to find the new solutions.

## 0 Codes

### ◇ ○ **Step wise approach to campus innovation**

#### 3 Groups:

Diff: Working practices / Strat-sub: Assigned Responsibility / Visionary Innovation

#### 1 Quotations:

##### 🍷 1:21 ¶ 117 in Uni1

Think of climate, movements. As a country we are more reserved, we are Calvinistic. We do make steps. We want to know how we can involve the primary process into the campusdevelopment.

## 0 Codes

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## ◇◇ **Examples of innovations**

### 3 Codes:

#### ◇ ○ **Example of living lab**

#### 1 Groups:

Examples of innovations

#### 55 Quotations:

☰ **1:11 ¶ 102 in Uni1**

We do have a garden rooftop, designed in cooperation with geology and it is in use

☰ **2:9 ¶ 102 in Uni2**

We had a prof in biodiversity. We thought we were very biodiverse as a campus, but we were not. This lady was very specialised in this. Therefore also the municipality recognized this

☰ **2:16 ¶ 104 in Uni2**

With another prof and his team we look at opportunities to redevelop our real estate

☰ **2:34 ¶ 120 in Uni2**

On a small scale; there is a researcher in Amsterdam who can use a part of our campus to test a certain cycle path. Use of science park as a living lab. Campuses can be used as living labs for other researchers outside the campus.

☰ **2:35 ¶ 103 in Uni2**

The second example; prof in solar panel

☰ **2:40 ¶ 118 in Uni2**

Tendering – you enabled something, and then you have to show it.

☰ **2:44 ¶ 104 in Uni2**

Energy intensive materials and circularity is studied in another study. With another prof and his team we look at opportunities to redevelop our real estate. Looking at possibilities coming from the refuse streams and other materials that can be used in the buildings, also looking at development of models. In this, student also do some research. Bio inspired design; can we develop a façade that is based on biology (fur of animals?). We are enthusiastic about it and we facilitate some parts of buildings to experiment with this. When you allow people to experiment, you have to keep in mind that an option is that it will fail. It succeeds or fails by the people. There has to be intrinsic motivation. A barrier is the different pace; at the operation side we mostly want to go faster because we want results and continue. The pace of research is very different. The tempo of the study and the required outset makes it difficult (different frequency). We often have to deal with how to practically implement the innovations. We do not let the practical implementation limitations prevent us from starting. You have to keep track of what you hope, but bring your best suggestions and match that with the expectations of the researcher. We have the drive to test because we also want to help ourselves further (value innovation) and therefore we don't just want to do successful projects without ever experimenting. You can't count on the quality. Always looking for win-win solutions to help ourselves also a step further.

☰ **3:2 ¶ 106 in Uni3**

The Spacebuzz is part of the research that we do at the DAF lab. It shows what VR can do, just if like you are the rocket man. It about what VR can add to the learning capacity of people. Will it transform you into another human being? Will kids be better people when they experience the experience of Andre Kuipers? It has its effects for at least a week. These initiatives are born at our own scientists. This is really new. Tailormade – light quality

 **3:8 ¶ 109 in Uni3**

There is also a small example of two enthusiastic scientists who want to be involved in the new sports centre. They are from health and lifestyle. Healthy campus – healthy living. They are also involved in the tenders on catering

 **3:12 ¶ 103 in Uni3**

We also had a professor who wanted to adjust an elevator. He wanted to see if English or Dutch had influence on your elevator experience. We did this

 **3:13 ¶ 115 in Uni3**

Innovations; make mushrooms from our coffee grounds, trimming hedges for some kind of medicine for cancer (yew hedge).

 **3:18 ¶ 100 in Uni3**

We do have the Simon building with behavioural scientists.

 **3:25 ¶ 104 in Uni3**

DAF technology lab; idea of a professor. We started with experimenting on virtual reality. Placed a small provision and got some budget and we just started testing some things.

 **4:9 ¶ 105 in Uni4**

The insulation design / engineering of the installations are ‘state of the art’. There is sensor technology, rating occupancy levels, heating and cooling. The combination of these interventions in heritage building is new. Pilot “Well-being” building.

 **4:28 ¶ 96 in Uni4**

Tapijn building; living lab in which all kinds of interventions are being applied tested by the researchers

 **4:29 ¶ 100 in Uni4**

The Euregio is a development of sustainable mobility. In the first phase this was called ‘Maastricht Accessible (bereikbaar)’

 **5:4 ¶ 120 in Uni5**

The living lab is the Energy Academy. Groningen will profile itself as the region for energy transition. The building is from the foundation until the roof with solar panels that are unique in its form. So a building as a living lab, as experiment

 **5:22 ¶ 119 in Uni5**

Some copies see innovation opportunities and immediately get involved. Some of the companies make 'sweet bread' and another company made a copper thing that works well

 **5:24 ¶ 125 in Uni5**

In the healthy ageing campus we are going to make a physical stage for health. The public space and surroundings play an important role in this to make the whole campus a living lab as example for health

 **5:26 ¶ 126 in Uni5**

With Agro Food there is a large potato manufacturer with an own R&D department on the Zernike Campus. We have a new chemistry indoor lab, the energy academy is an example of this. These are some examples in which we work together with companies, that really work. This is de management side of the campus and the research side of the campus.

 **6:3 ¶ 109 in Uni6**

We also have a field; a piece of land to walk, watch, where students can come. This is called The Field, with flowers, insects etc.

 **6:15 ¶ 104 in Uni6**

We want to upgrade the existing infrastructure. We wanted our colleagues from landscape development and from the ESG side to think about how to do this and to cooperate in this process. So we try to let our people participate in these kinds of projects.

 **6:16 ¶ 104 in Uni6**

The researchers have been involved in setting up this vision (green management, animals, where to maintain nature and where not to, how to keep ditches clean, how to mow the grass). Also the infrastructure Wageningen is adapted

 **6:23 ¶ 111 in Uni6**

Tasting sessions, eating insects, tasting coffee. Co participate in a panel as users. For different types of research. We received trays with maggots. As a user, as you actively participate, we give feedback. Test panels / user panels.

 **6:25 ¶ 108 in Uni6**

Example; we have a bio asphalt bicycle paths. Researchers came up with this. And when we are going to place new bicycle paths we can use this bio asphalt. It is tested in the business operation

#### ☰ 7:1 ¶ 113 in Uni7

We also had a bicycle stand with solar panels on the roof. Off grid bicycle stand we had to change it because people wanted it to be more safe. This was not used for research

#### ☰ 7:8 ¶ 108 in Uni7

Examples: buffers for rain water; if we predict the rainfall, we can empty the buffers in the sewage so that they can be used for the new rainfall. A rejected huge milk tank is placed next to the SportsCenter. The water discharge of the SportsCenter goes to this tank. This contains a module that tracks the weather system. When a lot of rain is predicted, the tank will be emptied. Otherwise the water will be used for greenery. We facilitate this. We think along, facilitate and help to make it work.

#### ☰ 7:10 ¶ 109 in Uni7

Another example: a beneath-surface infralab. In this we want to exactly know the types of soil and the placement of the pipes. They are exactly measured and placed; 3 squares of 60 x 20m with different types of soil and pipes. This is a lab for testing ground radars and for education ROC students (MBO). This happens on campus. The researcher has contact with the ROC. So the ROC is the users, on campus, and the ideas are born on campus. The research group has more connections so the design is not necessarily for the external groups.

#### ☰ 7:13 ¶ 112 in Uni7

TechMed centre: this is new. One building in which all health-oriented educations are placed. Just like what we wanted with robotica; put them together for mutual influences. There are college rooms, labs, operation rooms to measure and research how things work in practice

#### ☰ 7:14 ¶ 111 in Uni7

Escaperoom: this was a project from behavioural sciences. They placed this on the campus and we facilitated this

#### ☰ 7:20 ¶ 107 in Uni7

Example: we had a research group that was dealing with membranes. They needed space to display. We had just realised a square with types of water. They could use this to test real life water treatment

#### ☰ 7:29 ¶ 104 in Uni7

one professor developed a tool to visualise circularity. This has a PDENG and will research the applicability of this model on a real building. For us this is useful as well,

because we will see the sustainability of these buildings. So this is someone of the research field who takes part in the realisation. From the research field implementation

☰ **7:30 ¶ 113 in Uni7**

Bicycle: tested on campus by users. We also had an electrical bike with solar cells on the wheels. These could be used by campus users who gave a review on the use of the bicycle

☰ **7:32 ¶ 116 in Uni7**

We want to experiment on flora & fauna in the gardens.

☰ **7:36 ¶ 116 in Uni7**

The consultants work on this with research groups of the end users. So the end users can work on this as well. So we use existing innovations in this building

☰ **7:39 ¶ 103 in Uni7**

(Part 1: Smart tools / sensors for occupancy rates. The buildings are smart; indoor navigation systems, presence control, MazeMap). It is anonymous, so privacy proof).

☰ **7:47 ¶ 112 in Uni7**

TechMed centre: this is new. One building in which all health-oriented educations are placed. Just like what we wanted with robotics; put them together for mutual influences. There are college rooms, labs, operation rooms to measure and research how things work in practice. We don't have an academic hospital nearby, so there are all phantom-patients to test on. This is very good for testing for future doctors. Use of nep-patients is an innovation. There are also companies that develop things here. This is a breeding ground for medical innovation.

☰ **8:41 ¶ 97 in Uni8**

We used a recording room in the 'education lab' to see how we could do lectures online. We also looked at Delft (teaching lab). These are things we do that I know.

☰ **9:6 ¶ 14 in Uni9**

We wanted to install taps where you can wash and dry your hands

☰ **9:10 ¶ 16 in Uni9**

Other types of rooms, experimentation with different types of rooms, the faculties request these changes, they are the drivers of the changes.

☰ **9:20 ¶ 19 in Uni9**

New types of rooms are also increased experimentation, this comes from the needs created by Covid. Not too many separate work places yet.

☰ **9:24 ¶ 27 in Uni9**

At the moment we are also taking a look at bio-diversity. We are stepping off bee hotels etc.

☰ **9:27 ¶ 13 in Uni9**

Adopted innovations: Energy net, to improve energy efficiency on campus, and was an idea from internal and implementation on campus, that will also be rolled out on the larger campus. This is a very important project (5), scale (whole campus implementation).

☰ **9:37 ¶ 32 in Uni9**

Logistic hub (busses on campus), also from delivery busses, so we didn't want that on campus. So we facilitated a campus collection spot and bundled the deliveries at one gate. We are looking at the mobility to campus, with the dream to have no traffic on the road

☰ **9:39 ¶ 26 in Uni9**

At the moment we also spend a lot of energy on refuse stream reuse and so on.

☰ **11:9 ¶ 99 in Uni11**

They also build a circular tiny house, the most sustainable kilometre in Leiden, a new building in which steel of our old building is reused, and we fully participate in this. This project leader was also involved in the ditches and is now the animator of circular construction

☰ **11:15 ¶ 99 in Uni11**

Living Lab Schouwburgstraat is for pioneers. Is now in the building 'PLNT'. This is our centre for innovation. An old, very spacious building. It is run by two professionals. They are on the frontline of circular building in Leiden

☰ **12:3 ¶ 109 in Uni12**

Example; there is in the UvA a lot of expertise to model monuments in 3D & 4D. 4D research lab that is specialized in mapping history and monumentality of buildings.

☰ **12:4 ¶ 105 in Uni12**

Living lab at marine terrain together with AMS

☰ **12:11 ¶ 103 in Uni12**

At the Science park some students started a permaculture garden on which the ecological institute of the UvA can make use for research

☰ **12:25 ¶ 106 in Uni12**

One example was growing different types of grass.

### 📄 12:32 ¶ 102 in Uni12

There is a large network in Amsterdam with a lot of experiments

### 📄 13:6 ¶ 101 in Uni13

The Green Village is a conclave without rules of law

### 📄 13:26 ¶ 105 in Uni13

Deborah Nas: crowd management at campus. We succeeded to make a unique monitor system to see what the stream of people is (pedestrians, cyclists, cars) and what are places for 1,5 meter. So when the campus starts, we can manage it with matrix boards. Outdoor Management Dashboard. Big data. So much data about the campus

### 📄 13:28 ¶ 103 in Uni13

For instance a company approached us with the idea for a corona proof elevator. There is so much ventilation so you can be in the elevator with 6 people. I'm in favour of testing that at the TU. That is our thing. We need to stay involved. The Green Village is more an artificial world, without the real testers.

## 0 Codes

### 📄 ○ Example: Failed attempts

#### 1 Groups:

Examples of innovations

#### 9 Quotations:

### 📄 3:4 ¶ 105 in Uni3

We also for instance tested a 3D print lab. This did not work so after a year we stopped. This 3D print lab was partly our idea and partly from external researchers. No good business case, advertising was poor. It was lacking on several fronts.

### 📄 4:18 ¶ 109 – 110 in Uni4

A couple of years ago we had a project ‘‘UM duurzaam onderdak (sustainable housing?)’’ in which they wanted to do a living lab, in which several research groups would participate in making an intern roadmap for making the portfolio more sustainable.(2016 or 2017).

This did not work because the question of the real estate department was really specific: what do we have to do with our maintenance plans to make the right choices to make decisions. The researchers on the other hand had another agenda; what should I do to get sustainability on the agenda. Really on their own theme

### 📄 5:6 ¶ 117 in Uni5

We then set up the Task Force Hybrid Working and we involved several scientists in this. In particular behavioural scientists and asked them what their barriers were, and if they could set up a program. Then they immediately said; there are so many ideas within the university to research that we cannot find where to start.

#### **7:26 ¶ 105 in Uni7**

Another example; we have a group who does the greenery. They got in touch with a PhD person who deals with recognizing all kinds of structures. Together they came up with the idea to search for eggs of oak processionary caterpillars (?) in the autumn, to remove them. How to find these eggs? With special kinds of lights. I saw the report of this and saw many flaws to improve i

#### **7:42 ¶ 114 in Uni7**

We also wanted to make a small village on campus (6 units) with developed systems so it could function on grid. We wanted to do behavioural research there, smart grid research. This did not happen yet because a grant/subsidy failed. We learned: lets the researchers guide the research.

#### **8:8 ¶ 100 in Uni8**

Innovation sin the Real Estate is always very visible, to everyone, so if everyone sees it all the time, it is a real barrier.

#### **8:38 ¶ 109 in Uni8**

One example where the match between campus and researchers did not work, was: the energy transition in the Urgenda and Jan Hofmans: the ideas were so innovative that we could not implement it in our campus development. The other way around, he could not permit his self as a scientist on the level we wanted to work. (living lab on human resources).

#### **10:20 ¶ 109 in Uni10**

An example is team Casa; they came with a nice idea 3 times and we had some serious conversations with them, however it did not go any further than just an idea. Despite all our serious interests, it does not go any further than just an idea. Despite all our efforts, it did not go further than being an idea.

#### **10:28 ¶ 96 in Uni10**

Sometimes it succeeds, like a small bicycle stand with solar panels. However nobody used it. That is sad.

### **0 Codes**

 **○ Example: Inter campus innovation testing**

### **1 Groups:**

## 2 Quotations:

### 2:8 ¶ 120 in Uni2

On a small scale; there is a researcher in Amsterdam who can use a part of our campus to test a certain cycle path. Use of science park as a living lab. Campuses can be used as living labs for other researchers outside the campus.

### 5:3 ¶ 122 in Uni5

Hanze has EnTranCe, and they are more the constructors, and experiment with can you recycle old tires to make electricity or hydrogen for it. That is more a lab environment with weird buildings to experiment on energy transition. Here there are companies involved like the Hesla.

## 0 Codes

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## Financial

### 4 Codes:

#### ○ Barrier: Financial ability to facilitate

### 3 Groups:

Diff: Funding sources / Financial / Fin-sub: Resourcing

### 15 Quotations:

#### 2:6 ¶ 106 in Uni2

Sometimes we have a bit extra budget for these kinds of experiments, because we do think it is important. You should be able to facilitate it.

#### 3:22 ¶ 103 in Uni3

This is because it are two worlds; what does the professor want? What does he want to achieve by doing this? Who pays? We are very practical as facility management and then he is too abstract.

#### 4:7 ¶ 108 in Uni4

budget

#### 5:29 ¶ 132 in Uni5

Barriers are from the organisation mainly the governance structure. We do have money on the banks, but the governance structures on how to make use the money.

☰ **7:3 ¶ 105 in Uni7**

I work for maintenance of the campus and also greenery, and I can not reserve money from this for finance research

☰ **7:6 ¶ 113 in Uni7**

We also had a bicycle stand with solar panels on the roof. Off grid bicycle stand we had to change it because people wanted it to be more safe. This was not used for research. I put money for real estate in something that is not used by the researchers, because there was no fence placed around it (so accessible for everyone, not exclusively for the researchers)

☰ **7:23 ¶ 114 in Uni7**

This did not happen yet because a grant/subsidy failed.

☰ **7:24 ¶ 107 in Uni7**

However, this was financial not feasible.

☰ **7:38 ¶ 106 in Uni7**

So many barriers in the testing on applicability. We want to apply them. And if we had more budget for innovation we could facilitate it more. We have to find a two-way street.

☰ **7:40 ¶ 107 in Uni7**

We wanted to reuse water to use for there sport fields. That has a payback period.

☰ **8:53 ¶ 107 in Uni8**

At the Erasmus university we are in another financial perspective that last year (disregarding corona). The last years we had an ample financial situation, now we do not. Partly due the Commission 'Van Rijn', (the technical universities receive more money than the generic universities). So we have a different strategy for the budget and allocating it. On top of that we have corona. So we use money wisely. You need to find a balance between facilitating research, education and valorisation, and on the other hand the "stones" and facilities to contribute to this. So you need to find the space to connect the primary process with support services. Now it is even hard to include the influence of science in our calamity team. It is about the crossover between the reality to run a university versus the in-house knowledge that can help with this.

☰ **10:4 ¶ 97 in Uni10**

The complexity is to finance the research

☰ **10:8 ¶ 110 in Uni10**

. It is also very frustrating for students if there is not steering and no money or discord in the phases for the research projects

 **10:11 ¶ 97 in Uni10**

(also with regards to the subsidization you have to apply for simultaneously) that we can contribute this to the projec

 **10:23 ¶ 97 in Uni10**

It is really about the finding the match in the project planning and the money, and to combine this with the research ambitions.

## 0 Codes

 ○ **Barrier: Financial mixing of money streams (research and building)**

### 3 Groups:

Diff: Funding sources / Financial / Fin-sub: Reporting

### 3 Quotations:

 **4:11 ¶ 108 in Uni4**

There is an appearance of mixing of money flows.

 **5:29 ¶ 132 in Uni5**

Barriers are from the organisation mainly the governance structure. We do have money on the banks, but the governance structures on how to make use the money.

 **8:32 ¶ 105 in Uni8**

If the innovation bring a lot of risk and costs, the faculties will not agree since this money can also be spend for research

## 0 Codes

 ○ **Barrier: Financial reporting on initiatives**

### 2 Groups:

Financial / Fin-sub: Reporting

### 6 Quotations:

 **1:27 ¶ 119 in Uni1**

It is tensive, since when the budget is tight at the end of the year you will be asked why you used the money for (for instance) these impulses

☰ **5:29 ¶ 132 in Uni5**

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☰ **8:42 ¶ 106 in Uni8**

From both sides: do we even have space to fail? For who are the costs then?

☰ **9:40 ¶ 28 in Uni9**

Tiny forest is an example of a project that did not work. Scientists wanted this on campus, appointed people and assigned a place. But this lead to a loss of parking spots, and we missed the deadlines and it did not work because we did not know about the deadline.

## 0 Codes

◇ ○ **Barrier: Goal to be financially efficient**

### 4 Groups:

Diff: Motivation / Diff: Target / Financial / Fin-sub: Resourcing

### 3 Quotations:

☰ **2:33 ¶ 111 in Uni2**

and we want to make clear (especially in an organisation that focuses on financially efficient real estate portfolio)

☰ **4:21 ¶ 110 in Uni4**

it can also clash with the financial reality

☰ **7:17 ¶ 113 in Uni7**

I put money for real estate in something that is not used by the researchers, because there was no fence placed around it (so accessible for everyone, not exclusively for the researchers). So this makes me very hesitant to do things like this. This keeps us from doing it another tim

## 0 Codes

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### ◇◇ Fin-sub: Reporting

#### 2 Codes:

#### ◇ ○ Barrier: Financial mixing of money streams (research and building)

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## 0 Codes

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## ◇◇ **Fin-sub: Resourcing**

### 2 Codes:

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### 15 Quotations:

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### 2:33 ¶ 111 in Uni2

and we want to make clear (especially in an organisation that focuses on financially efficient real estate portfolio)

### 4:21 ¶ 110 in Uni4

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### 7:17 ¶ 113 in Uni7

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## 0 Codes

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## Innovation features

## 5 Codes:

### ○ **InnFeature: Compatability**

## 2 Groups:

Diff: Working practices / Innovation features

## 5 Quotations:

### 2:44 ¶ 104 in Uni2

Energy intensive materials and circularity is studied in another study. With another prof and his team we look at opportunities to redevelop our real estate. Looking at possibilities coming from the refuse streams and other materials that can be used in the buildings, also looking at development of models. In this, student also do some research. Bio inspired design; can we develop a façade that is based on biology (fur of animals?). We are enthusiastic about it and we facilitate some parts of buildings to experiment with this. When you allow people to experiment, you have to keep in mind that an option is that it will fail. It succeeds or fails by the people. There has to be intrinsic motivation. A barrier is the different pace; at the operation side we mostly want to go faster because we want results and continue. The pace of research is very different. The tempo of the study and the required outset makes it difficult (different frequency). We often have to deal with how to practically implement the innovations. We do not let the practical implementation limitations prevent us from starting. You have to keep track of what you hope, but bring your best suggestions and match that with the expectations of the researcher. We have the drive to test because we also want to help ourselves further (value innovation) and therefore we don't just want to do successful projects without ever experimenting. You can't count on the quality. Always looking for win-win solutions to help ourselves also a step further.

### 3:31 ¶ 108 in Uni3

Sustainability factory – how sustainability is incorporated into the campus. Law, economy and theology, change management is perhaps something where the campus can contribute.

### 7:38 ¶ 106 in Uni7

So many barriers in the testing on applicability. We want to apply them. And if we had more budget for innovation we could facilitate it more. We have to find a two-way street.

### 7:50 ¶ 113 in Uni7

Bicycle: tested on campus by users. We also had an electrical bike with solar cells on the wheels. These could be used by campus users who gave a review on the use of the bicycle. We also had a bicycle stand with solar panels on the roof. Off grid bicycle stand we had to change it because people wanted it to be more safe. This was not used for research. I put money for real estate in something that is not used by the researchers, because there was no fence placed around it (so accessible for everyone, not exclusively for the researchers). So this makes me very hesitant to do things like this. This keeps us from doing it another time. We learned that involving researchers

ourselves does NOT work. We organise it the other way around; let the researchers involve us.

### ☰ 11:20 ¶ 97 in Uni11

We do not really want to test new things in our buildings. In Rotterdam they are going to build something with a nice ventilation concept (Earth, Wind & Fire) and then I first call the consultant. Examples like the Energy Academy in Groningen are really nice, and I try to show this to my colleagues as well. We try to learn from each other and look what concept we can implement. For a large part innovation in our buildings comes from our consultants, not really from our own people.

## 0 Codes

### ◇ ○ InnFeature: Complexity

#### 1 Groups:

Innovation features

#### 4 Quotations:

### ☰ 1:49 ¶ 104 in Uni1

A barrier can be that when you involve all the ideas in the design vision at the beginning, it will never be finished.

### ☰ 7:48 ¶ 104 in Uni7

It is hard to connect researchers in new built or renovation projects. Research is on the side of what is possible and is not applicable enough for real life. Not feasible enough sometimes. We booked 1 result; one professor developed a tool to visualise circularity. This has a PDENG and will research the applicability of this model on a real building. For us this is useful as well, because we will see de sustainability of these buildings. So this is someone of the research field who takes part in the realisation. From the research field implementation.

### ☰ 8:51 ¶ 98 in Uni8

What about the earth, wind and fire concept from Ben Bronzema? His concept is fully integrated in the design. Changes made to the rules about acquisitions and supply chain to ensure the sustainability of the things that were bought. The barriers were overcome. You need a system change on the management side. Management innovation. We have a big book with examples and experiences to learn from. We don't integrate not proven technology (barrier!).

### ☰ 13:34 ¶ 99 in Uni13

You have to deal with 2 things: business continuity and license to operate. For a faculty 1 thing is key, and that is the business continuity. Especially for faculties with heavy laboratory research. It can be millions of euros that can get lost.

## 0 Codes

### ◇ ○ InnFeature: Observability

#### 1 Groups:

Innovation features

#### 8 Quotations:

##### ☰ 1:51 ¶ 117 in Uni1

You also have to be careful who you do business with. You have to find people from practice that are eager to do their thing. They see opportunities to do measurement on the VU for example. When it becomes tangible, it is easier that theoretical change. Think of climate, movements. As a country we are more reserved, we are Calvinistic. We do make steps. We want to know how we can involve the primary process into the campusdevelopment. So one step at a time, but we are no marketing machine.

##### ☰ 2:46 ¶ 116 in Uni2

Future learning spaces: innovative character; small scale education and interaction. It is a joint project from operation side to support research and education. Where are possibilities? Let's define design together and apply this, and use, evaluate and adjust this. Plan do check act. More flexibility and extra ICT to do more digital. It is a process from the beginning to the end, and learn from this to see how we can even do it better.

##### ☰ 5:34 ¶ 130 in Uni5

An important driver for us is to be high in the international rankings. Also we want to have an important societal meaning for developing the region. Formerly we were really international. We had a campus in China and South-America. We wanted to be linked to large companies. That driver now totally changed because of the China-affair. Now we are the University of the North; own identity, gas-region, energy-transition region. So that will be our driver for the coming years. We want to have a top position international, but from our own central position.

##### ☰ 6:31 ¶ 154 in Uni6

First stages of innovation is easy. Risk is higher and then taken up and then companies take it up as the risk is less. Reputation risk. Not in my academic backyard.

##### ☰ 7:47 ¶ 112 in Uni7

TechMed centre: this is new. One building in which all health-oriented educations are placed. Just like what we wanted with robotica; put them together for mutual influences. There are college rooms, labs, operation rooms to measure and research how things work in practice. We don't have an academic hospital nearby, so there are all phantom-patients to test on. This is very good for testing for future doctors. Use of

nep-patients is an innovation. There are also companies that develop things here. This is a breeding ground for medical innovation.

☰ **9:49 ¶ 43 in Uni9**

Prestige driven: How important is the ranking to adopt new innovations on campus? WE all want to stand on the lists, but we need to look at other universities on what they are doing in terms of... Si the driver is the comparison with other NL universities. So assessing how the universities compare and looking at competitors.

☰ **9:50 ¶ 13 in Uni9**

Adopted innovations: Energy net, to improve energy efficiency on campus, and was an idea from internal and implementation on campus, that will also be rolled out on the larger campus. This is a very important project (5), scale (whole campus implementation).

☰ **13:33 ¶ 20 in Uni13**

The relationships you start with at university form the base of your adulthood your social circle, your future colleagues, even your life partners. Winkel functie van een universiteit is de spinoff. De hele begane grond moet flex-space wees voor startups etc.

## 0 Codes

◇ ○ **InnFeature: Relative advantage**

### 1 Groups:

Innovation features

### 12 Quotations:

☰ **1:48 ¶ 114 in Uni1**

Practice what you preach. We are the intern real estate and facility department. So we need to find the added value and make this happen. But it happens that is just does not succeed. Sometimes research is useless (I know it is better in times of corona to clean every doorhandle every time, but it is not feasible). It is about possibility vs added value vs feasibility.

☰ **2:45 ¶ 105 in Uni2**

As long as a (small) research project does not give us any input, it is hard to continue with it. On the other hand, when a report is delivered that might be useful, we will look if we can use it somewhere. We try to think if we can do anything with the result to help ourselves to get ahead. For students, you have to accept that the quality can be lower than you expect.

☰ **4:31 ¶ 102 in Uni4**

This was different in the Tapijn Kazerne. In 2013 the ambition was made to realise project that assured added value to its surroundings. Used to be closed for the public, now Open education landscape; open for innovations and collaboration. It was a monument, so sustainability ambitions were incorporated in the adaptive reuse plans. We asked the university for researchers who had research programs on sustainable real estate. What do they have to offer? What input can they bring to make the redevelopment more sustainable.

 **5:32 ¶ 126 in Uni5**

With Agro Food there is a large potato manufacturer with an own R&D department on the Zernike Campus. We have a new chemistry indoor lab, the energy academy is an example of this. These are some examples in which we work together with companies, that really work. This is the management side of the campus and the research side of the campus. Also due to our researchers Agro Food decided to do this on our campus. The scientists made an added value relative to Wageningen.

 **6:31 ¶ 154 in Uni6**

First stages of innovation is easy. Risk is higher and then taken up and then companies take it up as the risk is less. Reputation risk. Not in my academic backyard.

 **8:49 ¶ 103 in Uni8**

There should be some space within the organisation to facilitate this process for the innovation. If it costs more than a proven technology, but at the same time there will be less spend on energy bills, there will be space for the innovation. Investment and operation should not be seen separately. Erasmus is quite compact and clear in this. If you invest more in a proven technology that is proven to save you money, it means that there should be space to test it out. The organization has to have the vision to support innovation.

 **8:52 ¶ 101 in Uni8**

Contractually we cannot install things that are not approved – the risk is too high. If the experimentation is not successful you get punished, through sentiment or questions about where you spent money – a big barrier. Also you are spending public money. Maybe you should especially spend money on innovation, but it is difficult. So you want to know what you will get for your money. There is not enough space to experiment. So the balance of responsibility is complicated.

 **9:49 ¶ 43 in Uni9**

Prestige driven: How important is the ranking to adopt new innovations on campus? WE all want to stand on the lists, but we need to look at other universities on what they are doing in terms of... If the driver is the comparison with other NL universities. So assessing how the universities compare and looking at competitors.

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Adopted innovations: Energy net, to improve energy efficiency on campus, and was an idea from internal and implementation on campus, that will also be rolled out on the larger campus. This is a very important project (5), scale (whole campus implementation).

#### **10:43 ¶ 104 in Uni10**

A lot of collaboration with student teams; enthusiastic initiative, challenge based learning (biobased car). Several projects from student teams and testing it on campus. Matrix is a building for challenge based learning. Important to give space for these developments to give a change to grow.. Also start-ups and scale ups. We are in the brainport region and in collaboration when a scale-up can be transferred into for instance “Strijp-S” or high tech campus. We search in the region how to redevelop ideas from the “delivery rooms” and how to scale-up. So what will be the life-cycle of an innovation and where can we do this and how can the region support this. A lot of discussion on what makes a startup to move from the delivery rooms to the testing and where it should land and how the region should support those innovations.

#### **13:35 ¶ 110 in Uni13**

Everyone who knows about the innovation is a risk. So what about sharing information? It is an accelerator, but you have to find the timing on when to share what information with who. As TU we do not have the Direction on this. We could make more use of YES!Delft and NextDelft. We have the whole cycle of science, innovation and implementation on our campus and to our access.

#### **13:36 ¶ 111 in Uni13**

We as managers are the client of this research, and you are the example of a living lab by researching this. How can we get the knowledge on the campus as soon as possible to our own campus managers.

## **0 Codes**

### **○ InnFeature: Trialability**

#### **1 Groups:**

Innovation features

#### **4 Quotations:**

#### **4:32 ¶ 105 in Uni4**

The insulation design / engineering of the installations are “state of the art”. There is sensor technology, rating occupancy levels, heating and cooling. The combination of these interventions in heritage building is new. Pilot “Well-being” building.

#### **7:49 ¶ 105 in Uni7**

Another example; we have a group who does the greenery. They got in touch with a PhD person who deals with recognizing all kinds of structures. Together they came up with the idea to search for eggs of oak processionary caterpillars (?) in the autumn, to remove them. How to find these eggs? With special kinds of lights. I saw the report of this and saw many flaws to improve it. I work for maintenance of the campus and also greenery, and I can not reserve money from this for finance research. If it was the case that it was almost completed and we are asked to be the launching costumer, I would do it. That is what I do more often. However when it is in the research phase, I do not. Feasibility should be shown, and if the money is available we could facilitate, but not really.

 **9:51 ¶ 16 in Uni9**

Other types of rooms, experimentation with different types of rooms, the faculties request these changes, they are the drivers of the changes. Rearranging the space is a small change for REM but for the faculty it is quite important.

 **9:52 ¶ 32 in Uni9**

Logistic hub (busses on campus), also from delivery busses, so we didn't want that on campus. So we facilitated a campus collection spot and bundled the deliveries at one gate. We are looking at the mobility to campus, with the dream to have no traffic on the road. Many people who live close to campus but still use their car to get to campus. So we have a large group of people who participate in the discussions. 20% of the cars less. Marketing will go out soon, and the vision will be explained.

## 0 Codes

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## Innovation types

### 7 Codes:

 ○ **Barrier: Difficult implementation**

### 2 Groups:

Diff: Working practices / Innovation types

### 2 Quotations:

 **3:5 ¶ 103 in Uni3**

We also had a professor who wanted to adjust an elevator. He wanted to see if English or Dutch had influence on your elevator experience. We did this. Now no one knows why this is. This small adjustment already was such a job to realise

 **9:8 ¶ 25 in Uni9**

because otherwise it will not go through the process and be implemented

## 0 Codes

### ◇ ○ **Barrier: Not identifying innovation as such**

#### 3 Groups:

Innovation types / Strat-Func-sub: mismatch / Strat-sub: Vision

#### 4 Quotations:

##### ☰ 1:26 ¶ 116 in Uni1

Sometimes we don't realise we are doing something already, so we don't display it either.

##### ☰ 11:5 ¶ 103 in Uni11

There should be a distinction between fundamentals of science and engineering.

##### ☰ 12:18 ¶ 115 in Uni12

Also from our side this space was not there yet. Not known that they might use their primary process on campus – to strengthen their own work.

##### ☰ 12:29 ¶ 115 in Uni12

Not yet used to terms like campus development. They don't know what they have and what they can use on the campus.

## 0 Codes

### ◇ ○ **InnType: Applied or fundamental**

#### 1 Groups:

Innovation types

#### 5 Quotations:

##### ☰ 1:14 ¶ 112 in Uni1

The difference between applied and fundamental research is the time you need it; applied fast, and fundamental in the future.

##### ☰ 1:50 ¶ 111 in Uni1

In Campus of Amsterdam and the HVA we see many studies are very useful; these are mainly practical topics. We can use their findings. In fundamental research, when their outcomes all go left and I need to go on, they are of no use to me. In that sense, the

universities of applied science and TNO are better partners for planning the future horizon. This is often proven technology.

☰ **2:7 ¶ 114 in Uni2**

We do fundamental research, so the applicability of research is very different than in technical universities. There are much more opportunities than we use now

☰ **2:22 ¶ 117 in Uni2**

Also for technical universities it is more their nature to test innovations.

☰ **10:44 ¶ 21 in Uni10**

Wij hebben nu een samenwerking tussen 4 faculteiten en dat zijn gedeelde labs. 1. moleculen onderzoek, 2. AI 3. Energie en 4. nanotechnologie en fotonica. Dit zijn instituten waar kennis over de faculteiten samengebracht wordt en waar samen gewerkt wordt. Dit is vooral vanuit de visie dat samen en synergie meerwaarde heeft. Puur vanuit onderzoek en werkprocessen.

## 0 Codes

◇ ○ **InnType: Arising from inside**

### 1 Groups:

Innovation types

### 3 Quotations:

☰ **9:55 ¶ 50 in Uni9**

Radboud and radical is not supposed to be in the same sentence. We don't develop the products themselves, we provide the space for tests and such, but not developing the products themselves. Product development is really not so applicable for this campus. We do design new ways of working, but we do not implement it always.

☰ **12:24 ¶ 108 in Uni12**

Campus managers; we do not frequently use the expertise from our faculties to use in our own developments at the campus

☰ **12:36 ¶ 108 in Uni12**

Campus managers; we do not frequently use the expertise from our faculties to use in our own developments at the campus. We also not frequently get questions from the other side (research side). So we do not really use our own expertise. UvA has a lot of knowledge on monument management, but the own professors of the UvA are the biggest critics when it comes to the campus or the city. This is not the help you are looking for. So it provides more complexity.

## 0 Codes

### ◇ ○ InnType: Behavioural research on campus

#### 1 Groups:

Innovation types

#### 2 Quotations:

##### ☰ 1:41 ¶ 106 in Uni1

Example; there is a research that people gain an x amount of grams per year. The solution is to make sure they have more exercise. We want to let people move more throughout the building; using stairs instead of elevators

##### ☰ 2:21 ¶ 114 in Uni2

We do not find a lot of connection either. Social researchers does not include the real estate management very often.

## 0 Codes

### ◇ ○ InnType: Campus installation

#### 1 Groups:

Innovation types

#### 2 Quotations:

##### ☰ 1:16 ¶ 102 in Uni1

. We do have a garden rooftop,

##### ☰ 9:55 ¶ 50 in Uni9

Radboud and radical is not supposed to be in the same sentence. We don't develop the products themselves, we provide the space for tests and such, but not developing the products themselves. Product development is really not so applicable for this campus. We do design new ways of working, but we do not implement it always.

## 0 Codes

### ◇ ○ Living lab Heijendaal

#### 1 Groups:

Innovation types

#### 1 Quotations:

### 9:16 ¶ 32 in Uni9

Logistic hub (busses on campus), also from delivery busses, so we didn't want that on campus. So we facilitated a campus collection spot and bundled the deliveries at one gate. We are looking at the mobility to campus, with the dream to have no traffic on the road

**0 Codes**

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## Physical

**1 Codes:**

 ○ **Barrier: Scarcity of opportunities in the built environment**

**2 Groups:**

Physical / Strat-sub: Vision

**1 Quotations:**

 4:24 ¶ 110 in Uni4

Real estate management has to operate in reality – with scarcity of projects.

**0 Codes**

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## Strategic

**19 Codes:**

 ○ **Barrier: Academic territorialism**

**3 Groups:**

Diff: Motivation / Diff: Working practices / Strategic

**7 Quotations:**

 1:13 ¶ 122 in Uni1

“Not in my academic backyard. “

 1:19 ¶ 110 in Uni1

Research can show what does not go right. And researchers can react narrow specified on their own topic: ‘I proved that it does not work like that, why don’t you change it?!’ There is no broadening.

☰ **1:28 ¶ 108 in Uni1**

Another difference between researchers and managers is that researchers want to maximize 1 thing, while managers want to optimise 10 at the same time.

☰ **8:4 ¶ 107 in Uni8**

Now it is even hard to include the influence of science in our calamity team. It is about the crossover between the reality to run a university versus the in-house knowledge that can help with this.

☰ **8:26 ¶ 108 in Uni8**

We can not find each other. We tried to. We are so busy, that we do not take the time to find the scientists.

☰ **8:30 ¶ 111 in Uni8**

On top of that there is a feeling of ‘being better’ and status from the academy relative to support services. Also people do not see how complex the decisions are we need to take. Also it is hard to align the people. One faculty director, oh, now I have more insight into the difficult decisions that has to be made. Barrier: academics have no insight into the complex decisions made by the practitioners as supporting medewerkers and also very little respect for it sometimes

☰ **12:23 ¶ 108 in Uni12**

UvA has a lot of knowledge on monument management, but the own professors of the UvA are the biggest critics when it comes to the campus or the city. This is not the help you are looking for. So it provides more complexity.

## **0 Codes**

◇ ○ **Barrier: Additional responsibility**

### **3 Groups:**

Diff: Risk expectancy / Strategic / Strat-sub: Assigned Responsibility

### **3 Quotations:**

☰ **3:19 ¶ 102 in Uni3**

Internally, for many people it would be something to do next to their main job.

☰ **8:6 ¶ 105 – 106 in Uni8**

We do not have all the power to make these decisions.

From both sides: do we even have space to fail? For who are the costs then?

 **12:16 ¶ 114 in Uni12**

The researcher is only there for the primary process.

**0 Codes**

 ○ **Barrier: Agreement on sharing space is complex**

**1 Groups:**

Strategic

**1 Quotations:**

 **4:10 ¶ 114 in Uni4**

The organization has to have the drive and the vision to work together to find technical solutions for sharing spaces that are normally quite difficult (sharing a theatre and a lecture hall).

**0 Codes**

 ○ **Barrier: Conflict of interest**

**2 Groups:**

Diff: Motivation / Strategic

**8 Quotations:**

 **1:17 ¶ 109 in Uni1**

There is also the barrier of conflicts of interest.

 **1:25 ¶ 120 in Uni1**

The main conclusion here is that there are two worlds that do not understand each other frequently.

 **3:15 ¶ 112 in Uni3**

Also there is a huge difference between fundamental research and applied research. There are two worlds with different expectations from each other.

 **3:22 ¶ 103 in Uni3**

This is because it are two worlds; what does the professor want? What does he want to achieve by doing this? Who pays? We are very practical as facility management and then he is too abstract.

☰ **7:11 ¶ 104 in Uni7**

It is hard to connect researchers in new built or renovation projects. Research is on the side of what is possible and is not applicable enough for real life. Not feasible enough sometimes

☰ **8:35 ¶ 94 in Uni8**

As a facilitator you end up in a split (drawn to 2 sides).

☰ **10:30 ¶ 110 in Uni10**

This is not the nature of the scientist.

☰ **11:10 ¶ 106 in Uni11**

As a manager I take 50 decisions a day. A researcher 3 a year. These two worlds have nothing to do with each other

**0 Codes**

◇ ○ **Barrier: Development of regulations and user guidelines are much slower than innovations themselves**

**1 Groups:**

Strategic

**1 Quotations:**

☰ **9:23 ¶ 22 in Uni9**

Development of technology is much faster than the regulations and the implementation and an understanding of the user behaviour.

**0 Codes**

◇ ○ **Barrier: Engaged only with those academics driving it**

**4 Groups:**

Diff: Motivation / Diff: Type of involvement / Strategic / Strat-sub: Assigned Responsibility

**2 Quotations:**

☰ **2:3 ¶ 108 in Uni2**

We actually only speak to people who want to do things on campus.

☰ **10:12 ¶ 109 in Uni10**

Regarding the point of innovation is not seen by academics; science has to be challenged and they have to promote their own projects to show what opportunities there are and how we can cooperate.

## 0 Codes

### ◇ ○ **Barrier: Fear of making a decision**

#### 2 Groups:

Diff: Risk expectancy / Strategic

#### 3 Quotations:

##### ☰ 8:6 ¶ 105 – 106 in Uni8

We do not have all the power to make these decisions.

From both sides: do we even have space to fail? For who are the costs then?

##### ☰ 8:17 ¶ 103 in Uni8

There should be some space within the organisation to facilitate this process for the innovation. If it costs more than a proven technology, but at the same time there will be less spend on energy bills, there will be space for the innovation.

##### ☰ 8:46 ¶ 101 in Uni8

So the balance of responsibility is complicated.

## 0 Codes

### ◇ ○ **Barrier: Goals of research mismatch**

#### 2 Groups:

Strategic / Strat-Func-sub: mismatch

#### 34 Quotations:

##### ☰ 1:5 ¶ 117 in Uni1

You have to find people from practice that are eager to do their thing. They see opportunities to do measurement on the VU for example

##### ☰ 1:19 ¶ 110 in Uni1

Research can show what does not go right. And researchers can react narrow specified on their own topic: ‘I proved that it does not work like that, why don’t you change it?!’ There is no broadening.

##### ☰ 1:28 ¶ 108 in Uni1

Another difference between researchers and managers is that researchers want to maximize 1 thing, while managers want to optimise 10 at the same time.

☰ **1:39 ¶ 105 in Uni1**

The worlds of the scientists and the manager do not match; a scientist can research the null hypothesis again, and put the process on pause for the rest. However, it is not bad what he or she is doing

☰ **3:15 ¶ 112 in Uni3**

Also there is a huge difference between fundamental research and applied research. There are two worlds with different expectations from each other.

☰ **3:22 ¶ 103 in Uni3**

This is because it are two worlds; what does the professor want? What does he want to achieve by doing this? Who pays? We are very practical as facility management and then he is too abstract.

☰ **4:26 ¶ 110 in Uni4**

The two worlds don't speak each other's language.

☰ **5:12 ¶ 118 in Uni5**

Goals are not aligned and then it does not work.

☰ **5:17 ¶ 117 in Uni5**

Then they immediately said; there are so many ideas within the university to research that we cannot find where to start. We are willing to think along, and you can interview us for our knowledge, but we are not going to commit ourselves to this. I was really disappointed and we did not manage to get this done.

☰ **6:18 ¶ 116 in Uni6**

Also with subsidies and time. If it takes too long the subsidy can be gone. When space is immediately needed, we have space off campus. But then all of a sudden people don't need the space anymore; the necessity is gone. Is it really necessary if they do not accept space that is 5 mins away? This triggers us to really ask if the space is necessary, or if we can find another solution. Will they find more creative solutions then? Location vs. m<sup>2</sup>

☰ **6:27 ¶ 115 in Uni6**

A barrier can be that the scientific culture and our culture cannot really find each other.

☰ **7:6 ¶ 113 in Uni7**

We also had a bicycle stand with solar panels on the roof. Off grid bicycle stand we had to change it because people wanted it to be more safe. This was not used for research. I put money for real estate in something that is not used by the researchers, because there was no fence placed around it (so accessible for everyone, not exclusively for the researchers)

 **7:11 ¶ 104 in Uni7**

It is hard to connect researchers in new built or renovation projects. Research is on the side of what is possible and is not applicable enough for real life. Not feasible enough sometimes

 **7:33 ¶ 118 in Uni7**

research is often very abstract, speaking a different language, we need an equalizer speaking the language.

 **7:43 ¶ 108 in Uni7**

It is hard that there are 2 totally different worlds; researchers and managers

 **8:4 ¶ 107 in Uni8**

Now it is even hard to include the influence of science in our calamity team. It is about the crossover between the reality to run a university versus the in-house knowledge that can help with this.

 **8:26 ¶ 108 in Uni8**

We can not find each other. We tried to. We are so busy, that we do not take the time to find the scientists.

 **8:30 ¶ 111 in Uni8**

On top of that there is a feeling of 'being better' and status from the academy relative to support services. Also people do not see how complex the decisions are we need to take. Also it is hard to align the people. One faculty director, oh, now I have more insight into the difficult decisions that has to be made. Barrier: academics have no insight into the complex decisions made by the practitioners as supporting medewerkers and also very little respect for it sometimes

 **8:38 ¶ 109 in Uni8**

One example where the match between campus and researchers did not work, was: the energy transition in the Urgenda and Jan Hofmans: the ideas were so innovative that we could not implement it in our campus development. The other way around, he could not permit his self as a scientist on the level we wanted to work. (living lab on human resources).

 **9:15 ¶ 27 in Uni9**

You need to connect the science and the practical part of bio-diversity. The scientist have wild ideas but as operations we cannot always join in with the issue.

☰ **9:22 ¶ 52 in Uni9**

. The implementation on campus is somewhat slower. Really a different world.

☰ **9:29 ¶ 29 in Uni9**

We really don't understand each other.

☰ **10:22 ¶ 96 in Uni10**

It is about science versus practical planning. It is hard to combine.

☰ **10:23 ¶ 97 in Uni10**

It is really about the finding the match in the project planning and the money, and to combine this with the research ambitions.

☰ **10:30 ¶ 110 in Uni10**

This is not the nature of the scientist.

☰ **11:7 ¶ 106 – 107 in Uni11**

There is no greater difference than between a manager and a researcher in psychology.

For me as a manager it is way easier to reverse money in the big project

☰ **11:10 ¶ 106 in Uni11**

As a manager I take 50 decisions a day. A researcher 3 a year. These two worlds have nothing to do with each other

☰ **12:10 ¶ 115 in Uni12**

Also faculties really are in their own world of primary process and research.

☰ **12:21 ¶ 113 in Uni12**

A barrier is; the research and campus management worlds are very different.

☰ **12:22 ¶ 108 in Uni12**

We also not frequently get questions from the other side (research side)

☰ **12:23 ¶ 108 in Uni12**

UvA has a lot of knowledge on monument management, but the own professors of the UvA are the biggest critics when it comes to the campus or the city. This is not the help you are looking for. So it provides more complexity.

☰ **12:26 ¶ 116 in Uni12**

But they don't know where to start

 **12:28 ¶ 102 in Uni12**

I think UvA is more fundamental, Delft is more applied and more practical.

 **13:19 ¶ 108 in Uni13**

Two worlds; scientists can say other things in interviews than managers. They communicate different.

**0 Codes**

 ○ **Barrier: Lack of project initiators**

**4 Groups:**

Diff: Type of involvement / Strategic / Strat-Func-sub: mismatch / Strat-sub: Assigned Responsibility

**2 Quotations:**

 **1:6 ¶ 119 in Uni1**

. It is about the initiators who have to possibility to use this money

 **3:9 ¶ 98 in Uni3**

The cooperation with the municipality first was very low. But then they got new board and the university did as well, so we wanted to link the municipality and the university

**0 Codes**

 ○ **Barrier: Long term failure of projects are visible in REM**

**1 Groups:**

Strategic

**1 Quotations:**

 **8:8 ¶ 100 in Uni8**

Innovation in the Real Estate is always very visible, to everyone, so if everyone sees it all the time, it is a real barrier.

**0 Codes**

 ○ **Barrier: Marketing and communication of successes**

**1 Groups:**

Strategic

### 3 Quotations:

#### 1:29 ¶ 117 in Uni1

but we are no marketing machine

#### 1:33 ¶ 116 in Uni1

We see and experience that we have more than we realise, and that we have a hard time displaying this to the outside world

#### 6:21 ¶ 107 in Uni6

When barriers occur, like people not liking that we sell heritage, we tell them to deal with this and to find solutions. So find where you can agree on; you will provide them some support to find the new solutions.

### 0 Codes

#### ○ **Barrier: One dimensional focus**

### 3 Groups:

Diff: Working practices / Strategic / Strat-sub: Assigned Responsibility

### 3 Quotations:

#### 8:1 ¶ 110 in Uni8

A concession is not OK for them (the researchers, architects in this example). It will always be a concession looking at the people, finances etc.

#### 10:30 ¶ 110 in Uni10

This is not the nature of the scientist.

#### 12:23 ¶ 108 in Uni12

UvA has a lot of knowledge on monument management, but the own professors of the UvA are the biggest critics when it comes to the campus or the city. This is not the help you are looking for. So it provides more complexity.

### 0 Codes

#### ○ **Barrier: Respect between 'Operations' and 'Academic' research**

### 2 Groups:

Diff: Type of involvement / Strategic

### 1 Quotations:

### ☰ 2:1 ¶ 117 in Uni2

There is also a barrier in respect between the primary and secondary processes (for instance someone who was promoted in Real Estate was not taken seriously by a “science person”).

#### 0 Codes

### ◇ ○ Barrier: Role of the researcher

#### 2 Groups:

Diff: Type of involvement / Strategic

#### 2 Quotations:

### ☰ 1:40 ¶ 109 in Uni1

Do it anywhere except on your own campus; role fading. It can be frustrating for the board to not be able to use the expertise on their own university because of this conflicts of interests.

### ☰ 10:39 ¶ 106 in Uni10

Partly the role changing (academic becomes part of campus team).

#### 0 Codes

### ◇ ○ Barrier: Silo'ed working

#### 2 Groups:

Diff: Working practices / Strategic

#### 7 Quotations:

### ☰ 5:8 ¶ 117 in Uni5

Before corona, we had some really nice ideas. However, they did not really come through because everyone really is in their own corner

### ☰ 5:33 ¶ 117 in Uni5

Before corona, we had some really nice ideas. However, they did not really come through because everyone really is in their own corner. We then set up the Task Force Hybrid Working and we involved several scientists in this. In particular behavioural scientists and asked them what their barriers were, and if they could set up a program. Then they immediately said; there are so many ideas within the university to research that we cannot find where to start. We are willing to think along, and you can interview us for our knowledge, but we are not going to commit ourselves to this. I was really disappointed and we did not manage to get this done.

#### **8:4 ¶ 107 in Uni8**

Now it is even hard to include the influence of science in our calamity team. It is about the crossover between the reality to run a university versus the in-house knowledge that can help with this.

#### **8:11 ¶ 111 in Uni8**

On top of that there is a feeling of 'being better' and status from the academy relative to support services. Also people do not see how complex the decisions are we need to take. Also it is hard to align the people. One faculty director, oh, now I have more insight into the difficult decisions that has to be made. Barrier: academics have no insight into the complex decisions made by the practitioners as supporting medewerkers and also very little respect for it sometimes.

#### **8:13 ¶ 103 in Uni8**

Investment and operation should not be seen separately.

#### **8:31 ¶ 107 in Uni8**

At the Erasmus university we are in another financial perspective that last year (disregarding corona). The last years we had an ample financial situation, now we do not. Partly due the Commission 'Van Rijn', (the technical universities receive more money than the generic universities). So we have a different strategy for the budget and allocating it

#### **11:13 ¶ 103 in Uni11**

Where is what university within range of fundamental and engineering.

### **0 Codes**

#### **○ Barrier: Standard way of working - no innovation space**

### **3 Groups:**

Diff: Working practices / Strategic / Strat-sub: Assigned Responsibility

### **3 Quotations:**

#### **5:29 ¶ 132 in Uni5**

Barriers are from the organisation mainly the governance structure. We do have money on the banks, but the governance structures on how to make use the money.

#### **5:30 ¶ 118 in Uni5**

The dynamics were very complex; people are in their standard research programs, with standard things that need to be financed and executed, and if something new comes by in which you can really make a social contribution in a fast way, it stagnated somewhere. Goals are not aligned and then it does not work.

### ☰ 8:3 ¶ 98 in Uni8

The barriers were overcome. You need a system change on the management side. Management innovation. We have a big book with examples and experiences to learn from

#### 0 Codes

### ◇ ○ Barrier: Too many stakeholders

#### 2 Groups:

Diff: Type of involvement / Strategic

#### 5 Quotations:

### ☰ 5:17 ¶ 117 in Uni5

Then they immediately said; there are so many ideas within the university to research that we cannot find where to start. We are willing to think along, and you can interview us for our knowledge, but we are not going to commit ourselves to this. I was really disappointed and we did not manage to get this done.

### ☰ 9:28 ¶ 14 in Uni9

But the discussions were so intense, comments and complains and in the end it was installed in only a part of the campus

### ☰ 9:30 ¶ 25 in Uni9

Many different departments and ideas, you get stuck

### ☰ 9:32 ¶ 14 in Uni9

We spent in the end too much energy on discussion for the implementation and the.

### ☰ 9:42 ¶ 25 in Uni9

That water everything down. ICT, end user, they all need to spend time and energy to make things work.

#### 0 Codes

### ◇ ○ Barrier: Unclear strategy

#### 3 Groups:

Diff: Motivation / Strategic / Strat-sub: Vision

#### 9 Quotations:

### ☰ 5:17 ¶ 117 in Uni5

Then they immediately said; there are so many ideas within the university to research that we cannot find where to start. We are willing to think along, and you can interview us for our knowledge, but we are not going to commit ourselves to this. I was really disappointed and we did not manage to get this done.

 **8:37 ¶ 96 in Uni8**

To see if they can work at the campus, and what that will add to the total vision on what we want to be, and for other to house on the campus. (what is the benefit of having business on campus?)

 **9:3 ¶ 31 in Uni9**

Simple things like setting up a solar panel somewhere is not an issue, but if you want to manage on a larger scale it becomes a bigger issue because it does not form part of the masterplan.

 **9:26 ¶ 50 in Uni9**

Radboud and radical is not supposed to be in the same sentence. We don't develop the products themselves, we provide the space for tests and such, but not developing the products themselves.

 **9:35 ¶ 29 in Uni9**

So we are taking a larger strategic approach toward biodiversity to take a look and include people from science

 **11:2 ¶ 97 in Uni11**

We do not really want to test new things in our buildings

 **11:8 ¶ 102 in Uni11**

I think we are quite innovative, but cautious with new concepts in buildings that are not prove

 **12:24 ¶ 108 in Uni12**

Campus managers; we do not frequently use the expertise from our faculties to use in our own developments at the campus

 **12:27 ¶ 106 in Uni12**

On the outer space of the UvA campus there is not really tested on things

## 0 Codes

 **○ Barriers: Continuity/Assigning responsibility**

## 3 Groups:

## 10 Quotations:

☰ **1:3 ¶ 118 in Uni1**

However continuity is an important barrier, especially in students initiatives

☰ **3:21 ¶ 101 in Uni3**

One professor tried to implement a new way of working. But that did not succeed because he got a new job. Other colleagues were relieved that they did not had to participate in this new way of working.

☰ **8:16 ¶ 94 in Uni8**

however the barriers kill the decisiveness,

☰ **8:19 ¶ 91 in Uni8**

On top of that, the driving factor (teacher on the university of applied sciences / HBO) became ill and could not be involved in the project any longer. So the project stopped and became an empty, abandoned house

☰ **8:29 ¶ 104 in Uni8**

Then you need a solid ground, so that it will not fail if this one person leaves

☰ **8:33 ¶ 94 in Uni8**

They have to remain throughout the process. Even the most enthusiast person can withdraw because things don't go as they should. Many frustrations.

☰ **10:10 ¶ 97 in Uni10**

So: "role fading" as barrier; who is who, who bares the risk of the product? Who has what responsibility?

☰ **10:34 ¶ 97 in Uni10**

who represents what role?

☰ **12:7 ¶ 114 in Uni12**

who feels responsible for the campus?

☰ **13:11 ¶ 99 in Uni13**

business continuity

## 0 Codes

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## ◇◇ Strat-Func-sub: mismatch

### 5 Codes:

#### ◇ ○ Barrier: Goals of research mismatch

### 2 Groups:

Strategic / Strat-Func-sub: mismatch

### 34 Quotations:

#### ☰ 1:5 ¶ 117 in Uni1

You have to find people from practice that are eager to do their thing. They see opportunities to do measurement on the VU for example

#### ☰ 1:19 ¶ 110 in Uni1

Research can show what does not go right. And researchers can react narrow specified on their own topic: ‘I proved that it does not work like that, why don’t you change it?!’ There is no broadening.

#### ☰ 1:28 ¶ 108 in Uni1

Another difference between researchers and managers is that researchers want to maximize 1 thing, while managers want to optimise 10 at the same time.

#### ☰ 1:39 ¶ 105 in Uni1

The worlds of the scientists and the manager do not match; a scientist can research the null hypothesis again, and put the process on pause for the rest. However, it is not bad what he or she is doing

#### ☰ 3:15 ¶ 112 in Uni3

Also there is a huge difference between fundamental research and applied research. There are two worlds with different expectations from each other.

#### ☰ 3:22 ¶ 103 in Uni3

This is because it are two worlds; what does the professor want? What does he want to achieve by doing this? Who pays? We are very practical as facility management and then he is too abstract.

#### ☰ 4:26 ¶ 110 in Uni4

The two worlds don’t speak each other’s language.

#### ☰ 5:12 ¶ 118 in Uni5

Goals are not aligned and then it does not work.

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 **6:18 ¶ 116 in Uni6**

Also with subsidies and time. If it takes too long the subsidy can be gone. When space is immediately needed, we have space off campus. But then all of a sudden people don't need the space anymore; the necessity is gone. Is it really necessary if they do not accept space that is 5 mins away? This triggers us to really ask if the space is necessary, or if we can find another solution. Will they find more creative solutions then? Location vs. m2

 **6:27 ¶ 115 in Uni6**

A barrier can be that the scientific culture and our culture cannot really find each other.

 **7:6 ¶ 113 in Uni7**

We also had a bicycle stand with solar panels on the roof. Off grid bicycle stand we had to change it because people wanted it to be more safe. This was not used for research. I put money for real estate in something that is not used by the researchers, because there was no fence placed around it (so accessible for everyone, not exclusively for the researchers)

 **7:11 ¶ 104 in Uni7**

It is hard to connect researchers in new built or renovation projects. Research is on the side of what is possible and is not applicable enough for real life. Not feasible enough sometimes

 **7:33 ¶ 118 in Uni7**

research is often very abstract, speaking a different language, we need an equalizer speaking the language.

 **7:43 ¶ 108 in Uni7**

It is hard that there are 2 totally different worlds; researchers and managers

 **8:4 ¶ 107 in Uni8**

Now it is even hard to include the influence of science in our calamity team. It is about the crossover between the reality to run a university versus the in-house knowledge that can help with this.

 **8:26 ¶ 108 in Uni8**

We can not find each other. We tried to. We are so busy, that we do not take the time to find the scientists.

 **8:30 ¶ 111 in Uni8**

On top of that there is a feeling of ‘being better’ and status from the academy relative to support services. Also people do not see how complex the decisions are we need to take. Also it is hard to align the people. One faculty director, oh, now I have more insight into the difficult decisions that has to be made. Barrier: academics have no insight into the complex decisions made by the practitioners as supporting medewerkers and also very little respect for it sometimes

 **8:38 ¶ 109 in Uni8**

One example where the match between campus and researchers did not work, was: the energy transition in the Urgenda and Jan Hofmans: the ideas were so innovative that we could not implement it in our campus development. The other way around, he could not permit his self as a scientist on the level we wanted to work. (living lab on human resources).

 **9:15 ¶ 27 in Uni9**

You need to connect the science and the practical part of bio-diversity. The scientist have wild ideas but as operations we cannot always join in with the issue.

 **9:22 ¶ 52 in Uni9**

. The implementation on campus is somewhat slower. Really a different world.

 **9:29 ¶ 29 in Uni9**

We really don’t understand each other.

 **10:22 ¶ 96 in Uni10**

It is about science versus practical planning. It is hard to combine.

 **10:23 ¶ 97 in Uni10**

It is really about the finding the match in the project planning and the money, and to combine this with the research ambitions.

 **10:30 ¶ 110 in Uni10**

This is not the nature of the scientist.

 **11:7 ¶ 106 – 107 in Uni11**

There is no greater difference than between a manager and a researcher in psychology. For me as a manager it is way easier to reverse money in the big project

☰ **11:10 ¶ 106 in Uni11**

As a manager I take 50 decisions a day. A researcher 3 a year. These two worlds have nothing to do with each other

☰ **12:10 ¶ 115 in Uni12**

Also faculties really are in their own world of primary process and research.

☰ **12:21 ¶ 113 in Uni12**

A barrier is; the research and campus management worlds are very different.

☰ **12:22 ¶ 108 in Uni12**

We also not frequently get questions from the other side (research side)

☰ **12:23 ¶ 108 in Uni12**

UvA has a lot of knowledge on monument management, but the own professors of the UvA are the biggest critics when it comes to the campus or the city. This is not the help you are looking for. So it provides more complexity.

☰ **12:26 ¶ 116 in Uni12**

But they don't know where to start

☰ **12:28 ¶ 102 in Uni12**

I think UvA is more fundamental, Delft is more applied and more practical.

☰ **13:19 ¶ 108 in Uni13**

Two worlds; scientists can say other things in interviews than managers. They communicate different.

## 0 Codes

◇ ○ **Barrier: Lack of knowledge on what knowledge is available**

### 1 Groups:

Strat-Func-sub: mismatch

### 1 Quotations:

☰ **8:15 ¶ 108 in Uni8**

We not know have enough knowledge about the available knowledge.

### 1 Codes:

is cause of ► ◇ ○ **Barrier: Lack of intra-organization coordination**

### 3 Quotations:

8:26 ¶ 108, We can not find each other. We tried to. We are so busy, that we do no... in Uni8 / 9:15 ¶ 27, You need to connect the science and the practical part of bio-diversit... in Uni9 / 13:19 ¶ 108, Two worlds; scientists can say other things in interviews than manager... in Uni13

#### ◇ ○ Barrier: Lack of project initiators

### 4 Groups:

Diff: Type of involvement / Strategic / Strat-Func-sub: mismatch / Strat-sub: Assigned Responsibility

### 2 Quotations:

#### ☰ 1:6 ¶ 119 in Uni1

. It is about the initiators who have to possibility to use this money

#### ☰ 3:9 ¶ 98 in Uni3

The cooperation with the municipality first was very low. But then they got new board and the university did as well, so we wanted to link the municipality and the university

### 0 Codes

#### ◇ ○ Barrier: no vision for innovation

### 4 Groups:

Diff: Working practices / Strat-Func-sub: mismatch / Strat-sub: Vision / Visionary Innovation

### 6 Quotations:

#### ☰ 8:2 ¶ 104 in Uni8

We would like to have the guts to do this.

#### ☰ 8:9 ¶ 101 in Uni8

Also you are spending public money. Maybe you should especially spend money on innovation, but it is difficult. So you want to know what you will get for your money. There is not enough space to experiment

#### ☰ 8:14 ¶ 103 in Uni8

Erasmus is quite compact and clear in this. If you invest more in a proven technology that is proven to save you money, it means that there should be space to test it out. The organization has to have the vision to support innovation.

#### ☰ 8:36 ¶ 105 in Uni8

We do not have all the power to make these decisions.

 **8:39 ¶ 104 in Uni8**

Even the word “innovative” can be repulsive. If we call it “a next step in a development” or “a better concept” or whatever, will be less heavy than terms like innovation or living lab.

 **12:24 ¶ 108 in Uni12**

Campus managers; we do not frequently use the expertise from our faculties to use in our own developments at the campus

**0 Codes**

 ○ **Barrier: Not identifying innovation as such**

**3 Groups:**

Innovation types / Strat-Func-sub: mismatch / Strat-sub: Vision

**4 Quotations:**

 **1:26 ¶ 116 in Uni1**

Sometimes we don't realise we are doing something already, so we don't display it either.

 **11:5 ¶ 103 in Uni11**

There should be a distinction between fundamentals of science and engineering.

 **12:18 ¶ 115 in Uni12**

Also from our side this space was not there yet. Not known that they might use their primary process on campus – to strengthen their own work.

 **12:29 ¶ 115 in Uni12**

Not yet used to terms like campus development. They don't know what they have and what they can use on the campus.

**0 Codes**

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 **Strat-sub: Assigned Responsibility**

**15 Codes:**

 ○ **Barrier: Additional responsibility**

### 3 Groups:

Diff: Risk expectancy / Strategic / Strat-sub: Assigned Responsibility

### 3 Quotations:

#### 3:19 ¶ 102 in Uni3

Internally, for many people it would be something to do next to their main job.

#### 8:6 ¶ 105 – 106 in Uni8

We do not have all the power to make these decisions.

From both sides: do we even have space to fail? For who are the costs then?

#### 12:16 ¶ 114 in Uni12

The researcher is only there for the primary process.

### 0 Codes

-  ○ **Barrier: Engaged only with those academics driving it**

### 4 Groups:

Diff: Motivation / Diff: Type of involvement / Strategic / Strat-sub: Assigned Responsibility

### 2 Quotations:

#### 2:3 ¶ 108 in Uni2

We actually only speak to people who want to do things on campus.

#### 10:12 ¶ 109 in Uni10

Regarding the point of innovation is not seen by academics; science has to be challenged and they have to promote their own projects to show what opportunities there are and how we can cooperate.

### 0 Codes

-  ○ **Barrier: Lack of project initiators**

### 4 Groups:

Diff: Type of involvement / Strategic / Strat-Func-sub: mismatch / Strat-sub: Assigned Responsibility

### 2 Quotations:

#### 1:6 ¶ 119 in Uni1

. It is about the initiators who have to possibility to use this money

### 3:9 ¶ 98 in Uni3

The cooperation with the municipality first was very low. But then they got new board and the university did as well, so we wanted to link the municipality and the university

#### 0 Codes

### ○ **Barrier: One dimensional focus**

#### 3 Groups:

Diff: Working practices / Strategic / Strat-sub: Assigned Responsibility

#### 3 Quotations:

### 8:1 ¶ 110 in Uni8

A concession is not OK for them (the researchers, architects in this example). It will always be a concession looking at the people, finances etc.

### 10:30 ¶ 110 in Uni10

This is not the nature of the scientist.

### 12:23 ¶ 108 in Uni12

UvA has a lot of knowledge on monument management, but the own professors of the UvA are the biggest criticsists when it comes to the campus or the city. This is not the help you are looking for. So it provides more complexity.

#### 0 Codes

### ○ **Barrier: Operation's attitude toward innovations and suggestions**

#### 2 Groups:

Diff: Working practices / Strat-sub: Assigned Responsibility

#### 1 Quotations:

### 3:16 ¶ 111 in Uni3

There can also be unsolicited advise from scientists for the business operations. It is vulnerable.

#### 0 Codes

### ○ **Barrier: Risk**

#### 2 Groups:

Diff: Risk expectancy / Strat-sub: Assigned Responsibility

## 14 Quotations:

### 2:12 ¶ 110 in Uni2

Risk is an important aspect as well, not only enthusiasm. Very dependent on good management. In building projects you want to manage the risks (you cannot employ innovation in a project) even if everyone is enthusiastic about it

### 2:24 ¶ 112 in Uni2

To avoid risks, not-proven technology can be avoided in practice.

### 6:1 ¶ 108 in Uni6

This is not tested yet, so we cannot use it for instance for heavy vehicles. You need to find the medium between where you can use it and where you cannot. The risks cannot be too high.

### 6:17 ¶ 115 in Uni6

To many risks, too far ahead.

### 7:2 ¶ 115 in Uni7

However when it is a certain technique in a building that is not proven yet we will not apply it.

### 8:7 ¶ 101 in Uni8

Contractually we cannot install things that are not approved – the risk is too high.

### 8:8 ¶ 100 in Uni8

Innovation in the Real Estate is always very visible, to everyone, so if everyone sees it all the time, it is a real barrier.

### 8:42 ¶ 106 in Uni8

From both sides: do we even have space to fail? For who are the costs then?

### 8:45 ¶ 98 in Uni8

We don't integrate not proven technology (barrier!).

### 8:52 ¶ 101 in Uni8

Contractually we cannot install things that are not approved – the risk is too high. If the experimentation is not successful you get punished, through sentiment or questions about where you spent money – a big barrier. Also you are spending public money. Maybe you should especially spend money on innovation, but it is difficult. So you want to know what you will get for your money. There is not enough space to experiment. So the balance of responsibility is complicated.

☰ **9:4 ¶ 14 in Uni9**

It worked well – installation of a proven technology – easy.

☰ **13:16 ¶ 110 in Uni13**

Everyone who knows about the innovation is a risk.

☰ **13:30 ¶ 99 – 100 in Uni13**

It can be millions of euros that can get lost.

This means that everything you do with experiments, should not disturb this. Your freedom to experiment is thus limited. It is about the commodities (nutsfuncties). This also is about safety.

☰ **13:35 ¶ 110 in Uni13**

Everyone who knows about the innovation is a risk. So what about sharing information? It is an accelerator, but you have to find the timing on when to share what information with who. As TU we do not have the Direction on this. We could make more use of YES!Delft and NextDelft. We have the whole cycle of science, innovation and implementation on our campus and to our access.

## 0 Codes

◇ ○ **Barrier: Standard way of working - no innovation space**

### 3 Groups:

Diff: Working practices / Strategic / Strat-sub: Assigned Responsibility

### 3 Quotations:

☰ **5:29 ¶ 132 in Uni5**

Barriers are from the organisation mainly the governance structure. We do have money on the banks, but the governance structures on how to make use the money.

☰ **5:30 ¶ 118 in Uni5**

The dynamics were very complex; people are in their standard research programs, with standard things that need to be financed and executed, and if something new comes by in which you can really make a social contribution in a fast way, it stagnated somewhere. Goals are not aligned and then it does not work.

☰ **8:3 ¶ 98 in Uni8**

The barriers were overcome. You need a system change on the management side. Management innovation. We have a big book with examples and experiences to learn from

## 0 Codes

### ◇ ○ Barriers: Continuity/Assigning responsibility

#### 3 Groups:

Diff: Type of involvement / Strategic / Strat-sub: Assigned Responsibility

#### 10 Quotations:

##### ☰ 1:3 ¶ 118 in Uni1

However continuity is an important barrier, especially in students initiatives

##### ☰ 3:21 ¶ 101 in Uni3

One professor tried to implement a new way of working. But that did not succeed because he got a new job. Other colleagues were relieved that they did not had to participate in this new way of working.

##### ☰ 8:16 ¶ 94 in Uni8

however the barriers kill the decisiveness,

##### ☰ 8:19 ¶ 91 in Uni8

On top of that, the driving factor (teacher on the university of applied sciences / HBO) became ill and could not be involved in the project any longer. So the project stopped and became an empty, abandoned house

##### ☰ 8:29 ¶ 104 in Uni8

Then you need a solid ground, so that it will not fail if this one person leaves

##### ☰ 8:33 ¶ 94 in Uni8

They have to remain throughout the process. Even the most enthusiast person can withdraw because things don't go as they should. Many frustrations.

##### ☰ 10:10 ¶ 97 in Uni10

So: "role fading" as barrier; who is who, who bares the risk of the product? Who has what responsibility?

##### ☰ 10:34 ¶ 97 in Uni10

who represents what role?

##### ☰ 12:7 ¶ 114 in Uni12

who feels responsible for the campus?

##### ☰ 13:11 ¶ 99 in Uni13

business continuity

## 0 Codes

### ◇ ○ Driver: Clear responsibility

#### 2 Groups:

Diff: Working practices / Strat-sub: Assigned Responsibility

#### 5 Quotations:

##### ☰ 10:40 ¶ 108 in Uni10

There should be someone who feels like he or she is the process-owner of the total. Has to take control over the ambition of the innovation.

##### ☰ 13:1 ¶ 109 in Uni13

who decides.

##### ☰ 13:7 ¶ 109 in Uni13

The TU has the history of not organising this strictly.

##### ☰ 13:17 ¶ 109 in Uni13

who is in the lead,

##### ☰ 13:31 ¶ 110 in Uni13

It is an accelerator, but you have to find the timing on when to share what information with who

## 0 Codes

### ◇ ○ Driver: Commitment to specific outcomes

#### 3 Groups:

Diff: Target / Strat-sub: Assigned Responsibility / Strat-sub: Vision

#### 1 Quotations:

##### ☰ 10:6 ¶ 94 in Uni10

For instance mobility hubs. Also, since recently we have been part of the “zero-emission zone” of the city, so we are fully involved and enthusiastic on this topic)

## 0 Codes

### ◇ ○ Driver: Entrepreneur centre participation

### 3 Groups:

Diff: Type of involvement / Strat-sub: Assigned Responsibility / Visionary Innovation

### 1 Quotations:

#### 3:24 ¶ 96 in Uni3

We also work with the municipality on a business school in the city; young professional campus. For young entrepreneurs. We take part in this.

### 0 Codes

#### ○ **Driver: Facilitation is a necessity**

### 2 Groups:

Diff: Working practices / Strat-sub: Assigned Responsibility

### 3 Quotations:

#### 1:42 ¶ 119 in Uni1

It is essential to facilitate, otherwise it will not happen and it is from nobody

#### 7:7 ¶ 110 in Uni7

We want to facilitate researchers that need real life situations (water treatment lab and beneath-surface infra). Therefore we use the campus

#### 10:8 ¶ 110 in Uni10

. It is also very frustrating for students if there is not steering and no money or discord in the phases for the research projects

### 0 Codes

#### ○ **Solution: Multiple research groups**

### 3 Groups:

Diff: Type of involvement / Strat-sub: Assigned Responsibility / Visionary Innovation

### 1 Quotations:

#### 5:18 ¶ 120 in Uni5

The energy academy is a building that is built with one thought: to make a sustainable as possible building. The next step is that researchers look at cell biology and plants and use this in the building, instead of mechanical ventilation. That is the next step.

### 0 Codes

## ◇ ○ **Solution: Research coordinator/portfolio matcher**

### **3 Groups:**

Diff: Type of involvement / Strat-sub: Assigned Responsibility / Visionary Innovation

### **19 Quotations:**

#### **2:2 ¶ 106 in Uni2**

We have to facilitate to find the match between the two worlds. So we need a portfolio manager with innovation demand and supply

#### **2:5 ¶ 107 in Uni2**

It can be better: It would help to have the interface between the two worlds clear.

#### **2:38 ¶ 106 in Uni2**

We paid a research coordinator.

#### **5:1 ¶ 127 in Uni5**

So we have a third party, but I think we should be more involved in them to be able to steer more in business development and housing.

#### **6:6 ¶ 113 in Uni6**

We have almost managed all services centrally from the facility company. Every knowledge unity has a location manager.

#### **6:20 ¶ 113 in Uni6**

This is the interlocutor from a faculty. This person tries to find the match between demand and supply, and to share the knowledge. They are the bridge. Since the integration of the facility domain, this really improved.

#### **7:5 ¶ 118 in Uni7**

Perhaps a department is useful where the budget, project planning, facilitation and matchmaking is important.

#### **7:16 ¶ 118 in Uni7**

Academic match because of publication requirement might be difficult. This has been addressed to some extent, which is good for living labs.

#### **7:35 ¶ 117 in Uni7**

We assigned innovation manager campus some time ago. The researchers don't know where to go, so then we had the matchmaker. But she left. A tiny houses project was one of the only things she did. She was no project leader, so when the project was

realised she handed it over to CFM. But it is not their task either. So this was not the solution either.

 **9:36 ¶ 25 in Uni9**

so it is really important to have someone who is assigned the specific responsibility to keep an eye on the implementation of innovation

 **10:5 ¶ 110 in Uni10**

Living labs; we need project management and directing to be able to do this together.

 **10:23 ¶ 97 in Uni10**

It is really about the finding the match in the project planning and the money, and to combine this with the research ambitions.

 **10:27 ¶ 99 in Uni10**

ng biobased materials, installations). We managed to have a part reserved for innovation within the investment. So we organised this beforehand. One of the success factors; we had a project manager who coordinated all. Driver why it succeeded. Or a solution to overcome one of the barriers (role fading).

 **10:38 ¶ 103 in Uni10**

Solution: The product is accepted but there is role change. Living labs project manager is important and who coordinates is.

 **11:3 ¶ 103 in Uni11**

Also there is always needed intermediary organisations between the two worlds.

 **11:4 ¶ 107 in Uni11**

There is an intermediar needed between scientists and managers. We have consultants

 **11:12 ¶ 107 in Uni11**

We need an equalizer or tuner. Knowledge broker.

 **12:2 ¶ 116 – 117 in Uni12**

In the future we would like to have knowledge brokers who can make connections between all these four campuses / ecosystems. Make synergies and co-creations.

What are the skills necessary to facilitate the network management and coordinator role?

 **12:13 ¶ 109 in Uni12**

This is an example of how we use the “Universiteitskwartier” as a living lab for research. With this we showcase what our expertise is.

## 0 Codes

### ◇ ○ Step wise approach to campus innovation

#### 3 Groups:

Diff: Working practices / Strat-sub: Assigned Responsibility / Visionary Innovation

#### 1 Quotations:

##### ☰ 1:21 ¶ 117 in Uni1

Think of climate, movements. As a country we are more reserved, we are Calvinistic. We do make steps. We want to know how we can involve the primary process into the campusdevelopment.

## 0 Codes

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### ◇◇ Strat-sub: Vision

#### 12 Codes:

### ◇ ○ Barrier: no vision for innovation

#### 4 Groups:

Diff: Working practices / Strat-Func-sub: mismatch / Strat-sub: Vision / Visionary Innovation

#### 6 Quotations:

##### ☰ 8:2 ¶ 104 in Uni8

We would like to have the guts to do this.

##### ☰ 8:9 ¶ 101 in Uni8

Also you are spending public money. Maybe you should especially spend money on innovation, but it is difficult. So you want to know what you will get for your money. There is not enough space to experiment

##### ☰ 8:14 ¶ 103 in Uni8

Erasmus is quite compact and clear in this. If you invest more in a proven technology that is proven to save you money, it means that there should be space to test it out. The organization has to have the vision to support innovation.

##### ☰ 8:36 ¶ 105 in Uni8

We do not have all the power to make these decisions.

 **8:39 ¶ 104 in Uni8**

Even the word “innovative” can be repulsive. If we call it “a next step in a development” or “a better concept” or whatever, will be less heavy than terms like innovation or living lab.

 **12:24 ¶ 108 in Uni12**

Campus managers; we do not frequently use the expertise from our faculties to use in our own developments at the campus

**0 Codes**

 ○ **Barrier: Not identifying innovation as such**

**3 Groups:**

Innovation types / Strat-Func-sub: mismatch / Strat-sub: Vision

**4 Quotations:**

 **1:26 ¶ 116 in Uni1**

Sometimes we don't realise we are doing something already, so we don't display it either.

 **11:5 ¶ 103 in Uni11**

There should be a distinction between fundamentals of science and engineering.

 **12:18 ¶ 115 in Uni12**

Also from our side this space was not there yet. Not known that they might use their primary process on campus – to strengthen their own work.

 **12:29 ¶ 115 in Uni12**

Not yet used to terms like campus development. They don't know what they have and what they can use on the campus.

**0 Codes**

 ○ **Barrier: Scarcity of opportunities in the built environment**

**2 Groups:**

Physical / Strat-sub: Vision

**1 Quotations:**

#### **4:24 ¶ 110 in Uni4**

Real estate management has the to operate in reality – with scarcity of projects.

### **0 Codes**

#### **○ Barrier: Unclear strategy**

### **3 Groups:**

Diff: Motivation / Strategic / Strat-sub: Vision

### **9 Quotations:**

#### **5:17 ¶ 117 in Uni5**

Then they immediately said; there are so many ideas within the university to research that we cannot find where to start. We are willing to think along, and you can interview us for our knowledge, but we are not going to commit ourselves to this. I was really disappointed and we did not manage to get this done.

#### **8:37 ¶ 96 in Uni8**

To see if they can work at the campus, and what that will add to the total vision on what we want to be, and for other to house on the campus. (what is the benefit of having business on campus?)

#### **9:3 ¶ 31 in Uni9**

Simple things like setting up a solar panel somewhere is not an issue, but if you want to manage on a larger scale it becomes a bigger issue because it does not form part of the masterplan.

#### **9:26 ¶ 50 in Uni9**

Radboud and radical is not supposed to be in the same sentence. We don't develop the products themselves, we provide the space for tests and such, but not developing the products themselves.

#### **9:35 ¶ 29 in Uni9**

So we are taking a larger strategic approach toward biodiversity to take a look and include people from science

#### **11:2 ¶ 97 in Uni11**

We do not really want to test new things in our buildings

#### **11:8 ¶ 102 in Uni11**

I think we are quite innovative, but cautious with new concepts in buildings that are not prove

☰ **12:24 ¶ 108 in Uni12**

Campus managers; we do not frequently use the expertise from our faculties to use in our own developments at the campus

☰ **12:27 ¶ 106 in Uni12**

On the outer space of the UvA campus there is not really tested on things

## 0 Codes

◇ ○ **Driver: Alignment with REM strategy**

### 2 Groups:

Diff: Target / Strat-sub: Vision

### 9 Quotations:

☰ **2:4 ¶ 111 in Uni2**

The real estate strategy want to realise value

☰ **5:13 ¶ 124 in Uni5**

For instance Nano technology, Artificial intelligence, energy transition, healthy ageing. On these themes we develop programs, and we try to physically shape this into living labs and to show this.

☰ **5:20 ¶ 124 in Uni5**

In the strategy for the campus we defined several areas to exce

☰ **5:23 ¶ 129 in Uni5**

We also want to develop some ‘schools’ in which people from different disciplines can work together on a entrain theme.

☰ **6:24 ¶ 105 in Uni6**

For instance we have a colleague who is active in Park management; he really likes green and bees and so on. So we really know how to find one another since we have these similar interests.

☰ **7:22 ¶ 115 in Uni7**

Sometimes there are very progressive ideas for innovations. As long as it not hinders the normal operations, we facilitate it

☰ **8:5 ¶ 96 in Uni8**

We think we are a liberal and entrepreneurial university.

☰ **10:9 ¶ 111 in Uni10**

The main driver is university driven; you want to be the frontrunner to initiate developments and then find cooperation with the market as soon as possible.

☰ **10:41 ¶ 108 in Uni10**

, and at the front you have to think already together with users and finances and practical feasibility this about on what innovations you want to focus that will be realised in the implementation

**0 Codes**

◇ ○ **Driver: Commitment to specific outcomes**

**3 Groups:**

Diff: Target / Strat-sub: Assigned Responsibility / Strat-sub: Vision

**1 Quotations:**

☰ **10:6 ¶ 94 in Uni10**

For instance mobility hubs. Also, since recently we have been part of the ‘zero-emission zone’ of the city, so we are fully involved and enthusiastic on this topic)

**0 Codes**

◇ ○ **Driver: Consultants suggest innovations**

**1 Groups:**

Strat-sub: Vision

**1 Quotations:**

☰ **11:16 ¶ 97 in Uni11**

. For a large part innovation in our buildings comes from our consultants, not really from our own people.

**0 Codes**

◇ ○ **Driver: Co-operation between departments**

**3 Groups:**

Diff: Motivation / Diff: Type of involvement / Strat-sub: Vision

**5 Quotations:**

☰ **1:30 ¶ 103 in Uni1**

in which several groups are involved

☰ **1:32 ¶ 102 in Uni1**

, designed in cooperation with geology and it is in use

☰ **2:31 ¶ 118 in Uni2**

Sustainability is no charity. It is a game to get this together feasible, Copernicus institute, bringing all these different things together

☰ **7:19 ¶ 112 in Uni7**

TechMed centre: this is new. One building in which all health-oriented educations are placed. Just like what we wanted with robotica; put them together for mutual influence

☰ **7:44 ¶ 104 in Uni7**

For us this is useful as well, because we will see de sustainability of these buildings. So this is someone of the research field who takes part in the realisatio

## 0 Codes

◇ ○ **Driver: Focused themes as university strategy**

### 4 Groups:

Diff: Target / Diff: Working practices / Strat-sub: Vision / Visionary Innovation

### 6 Quotations:

☰ **5:7 ¶ 130 in Uni5**

We had a campus in China and South-America. We wanted to be linked to large companies. That driver now totally changed because of the China-affair. Now we are the University of the North; own identity, gas-region, energy-transition region.

☰ **5:14 ¶ 130 in Uni5**

We want to have a top position international, but from our own central position.

☰ **5:23 ¶ 129 in Uni5**

We also want to develop some “schools” in which people from different disciplines can work together on a entrain theme.

☰ **6:5 ¶ 103 in Uni6**

The themes that we are good at as a university (green, sustainability, biodiversity, socially responsible) are very integrated; we want to make researchers and scientists involved in the beginning of the process, and make them experts.

☰ **6:22 ¶ 104 in Uni6**

“Beter Bereikbaar Wageningen (Better Accessible Wageningen)” is a large political theme.

☰ **13:21 ¶ 109 in Uni13**

This has to be decided in the front, otherwise many innovations will not succeed.

## **0 Codes**

◇ ○ **Driver: Operations' attitude toward innovation**

### **2 Groups:**

Diff: Working practices / Strat-sub: Vision

### **6 Quotations:**

☰ **2:6 ¶ 106 in Uni2**

Sometimes we have a bit extra budget for these kinds of experiments, because we do think it is important. You should be able to facilitate it.

☰ **2:28 ¶ 104 in Uni2**

We are enthusiastic about it and we facilitate some parts of buildings to experiment with this

☰ **6:7 ¶ 103 in Uni6**

Everyone has an opinion about things that happen on the campus on these themes (cutting trees etc.). So if we involve them in the beginning, they can give input etcetera throughout the process. So we do not experience barriers here. If we ask researchers to cooperate and participate, they say yes.

☰ **6:9 ¶ 114 in Uni6**

It is about finding answers together. Our Board of Directors really involves everyone and asks for their opinions, let them participate. Whether you are a primary process researcher, a student or supporting. This is really stimulated.

☰ **6:11 ¶ 105 in Uni6**

The gap between the management side and the practice is not so big, because we as managers also know things like a new road have to comply with sustainability ideas. We know about the scientific values.

☰ **6:13 ¶ 111 in Uni6**

We are approached as users frequently.

## 0 Codes

### ◇ ○ Driver: Operations drive innovation

#### 2 Groups:

Diff: Working practices / Strat-sub: Vision

#### 5 Quotations:

##### ☰ 2:32 ¶ 119 in Uni2

. The idea is from us, but we take many comments in.

##### ☰ 4:12 ¶ 108 in Uni4

There were no barriers since it was demand-driven

##### ☰ 4:16 ¶ 102 in Uni4

We asked the university for researchers who had research programs on sustainable real estate. What do they have to offer? What input can they bring to make the redevelopment more sustainable.

##### ☰ 4:17 ¶ 104 in Uni4

This is a real living lab; not just evaluating, but also giving input to what we think is justified for the BREAAAM and well-building certificate

##### ☰ 4:23 ¶ 96 in Uni4

Operations posed the question – Can you help us.

## 0 Codes

### ◇ ○ Driver: Vision

#### 2 Groups:

Diff: Target / Strat-sub: Vision

#### 20 Quotations:

##### ☰ 3:3 ¶ 98 in Uni3

To make a university city. And then the researchers were better linked to these kinds of initiatives. So there researchers now research difficult areas in the city of Tilburg.

##### ☰ 4:1 ¶ 102 in Uni4

This was different in the Tapijn Kazerne. In 2013 the ambition was made to realise project that assured added value to its surroundings.

#### **4:6 ¶ 103 in Uni4**

One of the suggestions was to, next to BREAAAM, also use the well-building certificate. It would be the first building in the world that in heritage had a 'well-building' certificate. It is broader than BREAAAM (just technique). Well-building is also about the people in and around the building. Sustainability is more than technique. Sustainable living of the building users were also included

#### **4:10 ¶ 114 in Uni4**

The organization has to have the drive and the vision to work together to find technical solutions for sharing spaces that are normally quite difficult (sharing a theatre and a lecture hall).

#### **4:14 ¶ 112 in Uni4**

An open learning landscape, inviting people from the public into the cloisters that has been adapted, but concretise the university buildings open to the public.

#### **6:2 ¶ 112 in Uni6**

Our vision is to understand as good as possible what our surroundings / environment is doing. This is part of it. We are supporting the primary process. It is important to show ourselves as facility company, but also helping and supporting for research and education. It is de basis of who we are.

#### **6:9 ¶ 114 in Uni6**

It is about finding answers together. Our Board of Directors really involves everyone and asks for their opinions, let them participate. Whether you are a primary process researcher, a student or supporting. This is really stimulated.

#### **6:26 ¶ 104 in Uni6**

Practical examples: in greenery, we have a 'green vision'.

#### **7:9 ¶ 119 in Uni7**

Is an innovation plan in this place? Long term plans consider the building's lifetime etc and what happens if you don't do it.

#### **10:1 ¶ 104 in Uni10**

Matrix is a building for challenge based learning. Important to give space for these developments to give a change to grow.

#### **10:5 ¶ 110 in Uni10**

Living labs; we need project management and directing to be able to do this together.

#### **10:9 ¶ 111 in Uni10**

The main driver is university driven; you want to be the frontrunner to initiate developments and then find cooperation with the market as soon as possible.

☰ **10:13 ¶ 110 in Uni10**

You need steering.

☰ **10:18 ¶ 94 in Uni10**

This year they are going to compile a landscape vision, with visions on bicycle traffic, car traffic, mobility on campus

☰ **10:19 ¶ 104 in Uni10**

We search in the region how to redevelop ideas from the ‘delivery rooms’ and how to scale-up. So what will be the life-cycle of an innovation and where can we do this and how can the region support this.

☰ **10:25 ¶ 108 in Uni10**

So in this new building we want to start with a project team and a developing team and to see on what subjects we need to find information on innovations, and at the front you have to think already together with users and finances and practical feasibility this about on what innovations you want to focus that will be realised in the implementation.

☰ **10:31 ¶ 104 in Uni10**

A lot of discussion on what makes a startup to move from the delivery rooms to the testing and where it should land and how the region should support those innovations.

☰ **13:8 ¶ 111 in Uni13**

We as managers are the client of this research, and you are the example of a living lab by researching this. How can we get the knowledge on the campus as soon as possible t our own campus managers

☰ **13:20 ¶ 102 in Uni13**

I really like prototyping and piloting. Than you can learn what it does in your organisation. What fits with our people, culture, tribes. Not everything is functional and then you don’t have to continue. But it is a pilot so you can stop with it.

☰ **13:21 ¶ 109 in Uni13**

This has to be decided in the front, otherwise many innovations will not succeed.

## **0 Codes**

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## Visionary Innovation

### 15 Codes:

#### ○ **Barrier: no vision for innovation**

#### 4 Groups:

Diff: Working practices / Strat-Func-sub: mismatch / Strat-sub: Vision / Visionary Innovation

#### 6 Quotations:

##### 8:2 ¶ 104 in Uni8

We would like to have the guts to do this.

##### 8:9 ¶ 101 in Uni8

Also you are spending public money. Maybe you should especially spend money on innovation, but it is difficult. So you want to know what you will get for your money. There is not enough space to experiment

##### 8:14 ¶ 103 in Uni8

Erasmus is quite compact and clear in this. If you invest more in a proven technology that is proven to save you money, it means that there should be space to test it out. The organization has to have the vision to support innovation.

##### 8:36 ¶ 105 in Uni8

We do not have all the power to make these decisions.

##### 8:39 ¶ 104 in Uni8

Even the word “innovative” can be repulsive. If we call it “a next step in a development” or “a better concept” or whatever, will be less heavy than terms like innovation or living lab.

##### 12:24 ¶ 108 in Uni12

Campus managers; we do not frequently use the expertise from our faculties to use in our own developments at the campus

#### 0 Codes

#### ○ **Barrier: Planning horizon of the study**

#### 2 Groups:

Diff: Time orientation / Visionary Innovation

## 1 Quotations:

### 1:35 ¶ 111 in Uni1

In that sense, the universities of applied science and TNO are better partners for planning the future horizon

## 0 Codes

### ○ **Driver: Comparisons to other universities**

## 2 Groups:

Diff: Motivation / Visionary Innovation

## 2 Quotations:

### 9:13 ¶ 43 in Uni9

WE all want to stand on the lists, but we need to look at other universities on what they are doing in terms of... Si the driver is the comparison with other NL universities. So assessing how the universities compare and looking at competitors.

### 11:6 ¶ 97 in Uni11

We try to learn from each other and look what concept we can implement

## 0 Codes

### ○ **Driver: Entrepreneur centre participation**

## 3 Groups:

Diff: Type of involvement / Strat-sub: Assigned Responsibility / Visionary Innovation

## 1 Quotations:

### 3:24 ¶ 96 in Uni3

We also work with the municipality on a business school in the city; young professional campus. For young entrepreneurs. We take part in this.

## 0 Codes

### ○ **Driver: Focused themes as university strategy**

## 4 Groups:

Diff: Target / Diff: Working practices / Strat-sub: Vision / Visionary Innovation

## 6 Quotations:

☰ **5:7 ¶ 130 in Uni5**

We had a campus in China and South-America. We wanted to be linked to large companies. That driver now totally changed because of the China-affair. Now we are the University of the North; own identity, gas-region, energy-transition region.

☰ **5:14 ¶ 130 in Uni5**

We want to have a top position international, but from our own central position.

☰ **5:23 ¶ 129 in Uni5**

We also want to develop some ‘schools’ in which people from different disciplines can work together on an entrain theme.

☰ **6:5 ¶ 103 in Uni6**

The themes that we are good at as a university (green, sustainability, biodiversity, socially responsible) are very integrated; we want to make researchers and scientists involved in the beginning of the process, and make them experts.

☰ **6:22 ¶ 104 in Uni6**

‘Beter Bereikbaar Wageningen (Better Accessible Wageningen)’ is a large political theme.

☰ **13:21 ¶ 109 in Uni13**

This has to be decided in the front, otherwise many innovations will not succeed.

**0 Codes**

◇ ○ **Driver: Future innovation developing departments**

**1 Groups:**

Visionary Innovation

**1 Quotations:**

☰ **13:13 ¶ 110 in Uni13**

We could make more use of YES!Delft and NextDelft

**0 Codes**

◇ ○ **Driver: Innovation defined as a project**

**2 Groups:**

Diff: Target / Visionary Innovation

## 1 Quotations:

### 10:14 ¶ 97 in Uni10

) that we can contribute this to the project.

## 0 Codes

### ○ Driver: Network of partners

## 2 Groups:

Diff: Type of involvement / Visionary Innovation

## 27 Quotations:

### 3:10 ¶ 96 in Uni3

Mindlabs is somethings we do together with the faculties, municipality and some other parties we work with.

### 3:14 ¶ 97 in Uni3

We also have a ‘city deal’. We have meetings with stakeholders in the surroundings.

### 4:2 ¶ 101 in Uni4

Living lab Tapijn (2103) UM zou de gebouw inricht, samen met de provincie en de gemeente. De opstallen gaat naar de provincie. De ambitie was dat dit een mooie duurzame project zou worden.

### 4:5 ¶ 106 in Uni4

Gemeente Maastricht BREAAAM well-being building (2013-2021). Building standards – 3 research groups. Who was involved?

### 4:8 ¶ 96 in Uni4

And the campaign redevelopment was linked to research programs.

### 4:13 ¶ 100 in Uni4

The UM participated mostly as a research organisation

### 4:22 ¶ 107 in Uni4

Piet Eikels smart finance. Mark van Dichtenbeld were involved in the process for smart finance. NB NB

### 4:27 ¶ 104 in Uni4

We said that we wanted to monitor what it would mean to redevelop a building like this, and also to measure if the users experience what we are putting in this building. It is a research project for 3 research groups at the university

 **5:10 ¶ 120 in Uni5**

The building has a kind of chimney effect (Schoorsteenwerking) which is really unique. A researcher from Utrechts comes here to show this is an example of how to make buildings

 **5:21 ¶ 120 in Uni5**

Several scientists were involved in this; they researched how the solar panels should be formed on the roof

 **5:25 ¶ 126 in Uni5**

With Agro Food there is a large potato manufacturer with an own R&D department on the Zernike Campus. We have a new chemistry indoor lab, the energy academy is an example of this. These are some examples in which we work together with companies, that really work.

 **7:25 ¶ 112 in Uni7**

There are also companies that develop things here. This is a breeding ground for medical innovation.

 **7:27 ¶ 107 in Uni7**

When surrounding faculty pays rent, we could also use this as a display for the testing of real life water treatment. Also the Waterboard was informed, they want to pay as well. Like that, we can realise the lab. You need some smart techniques to realise something like this. Financial feasibility – bringing many partners into the network

 **7:28 ¶ 109 in Uni7**

The researcher has contact with the ROC. So the ROC is the users, on campus, and the ideas are born on campus. The research group has more connections so the design is not necessarily for the external groups.

 **10:2 ¶ 104 in Uni10**

We are in the brainport region and in collaboration

 **10:9 ¶ 111 in Uni10**

The main driver is university driven; you want to be the frontrunner to initiate developments and then find cooperation with the market as soon as possible.

 **10:15 ¶ 99 in Uni10**

There is a lot of research there at the moment by the faculties

☰ **10:16 ¶ 94 in Uni10**

. TU/e is situated near the station, and we have a lot of research on the campus at several faculties on mobility

☰ **11:11 ¶ 99 in Uni11**

. It is about who knows who

☰ **11:14 ¶ 99 in Uni11**

He has many connections.

☰ **12:1 ¶ 111 in Uni12**

Ecosystems; we want to connect the science, the outside world and campus development. The campus organisation tries to strengthen these connections between researchers and campus. We try to find this connection from the content, starting with the knowledge centres inside the faculties

☰ **12:13 ¶ 109 in Uni12**

This is an example of how we use the “Universiteitskwartier” as a living lab for research. With this we showcase what our expertise is.

☰ **12:15 ¶ 102 in Uni12**

We do take part in all kinds of projects with the City Amsterdam as a living lab.

☰ **12:19 ¶ 110 in Uni12**

and you can make this visible by involving people.

☰ **12:32 ¶ 102 in Uni12**

There is a large network in Amsterdam with a lot of experiments

☰ **13:5 ¶ 112 in Uni13**

Besides Yes Delft and Next Delft we have our partners.

☰ **13:9 ¶ 110 in Uni13**

. We could make more use of YES!Delft and NextDelft.

## **0 Codes**

◇ ○ **Driver: Organic growth**

## **2 Groups:**

Diff: Working practices / Visionary Innovation

## **3 Quotations:**

☰ **3:17 ¶ 104 in Uni3**

We invested in this by all the schools and at the moment we are on the point that we can make the lab 4 times bigger

☰ **3:27 ¶ 104 in Uni3**

We started this at small and then made it bigger.

☰ **8:10 ¶ 104 in Uni8**

It can even be on a small scale. That would help for new innovative ideas

## 0 Codes

◇ ○ **Driver: Organizational priority setting**

## 2 Groups:

Diff: Motivation / Visionary Innovation

## 6 Quotations:

☰ **9:17 ¶ 59 in Uni9**

Campus and facilities do what they do. The college of management has to indicate that this is a priority and has to be done. If you go into a discussion and you look for a solution is very different than when everyone is not really committed. If everyone has the time, the task, the priority and the assignment they tend to find the solutions

☰ **10:3 ¶ 104 in Uni10**

We are in the brainport region and in collaboration when a scale-up can be transferred into for instance ‘‘Strijp-S’’ or high tech campus

☰ **10:7 ¶ 98 in Uni10**

. Innovation is implemented on campus and they want to implement it again on another place on campus

☰ **10:9 ¶ 111 in Uni10**

The main driver is university driven; you want to be the frontrunner to initiate developments and then find cooperation with the market as soon as possible.

☰ **10:24 ¶ 99 in Uni10**

This is all over a living lab (the design, using biobased materials, installations). We managed to have a part reserved for innovation within the investment

☰ **10:29 ¶ 104 in Uni10**

Matrix is a building for challenge based learning. Important to give space for these developments to give a change to grow.

## 0 Codes

### ◇ ○ REM role as Researcher

#### 2 Groups:

Diff: Working practices / Visionary Innovation

#### 6 Quotations:

##### ☰ 2:14 ¶ 116 in Uni2

Future learning spaces: innovative character; small scale education and interaction. It is a joint project from operation side to support research and education. Where are possibilities? Let's define design together and apply this, and use, evaluate and adjust this. Plan do check act. More flexibility and extra ICT to do more digital. It is a process from the beginning to the end, and learn from this to see how we can even do it better.

##### ☰ 5:11 ¶ 127 in Uni5

We have a really small campus management team (12 man), so we can not know what happens in every faculty from business management.

##### ☰ 6:2 ¶ 112 in Uni6

Our vision is to understand as good as possible what our surroundings / environment is doing. This is part of it. We are supporting the primary process. It is important to show ourselves as facility company, but also helping and supporting for research and education. It is de basis of who we are.

##### ☰ 10:39 ¶ 106 in Uni10

Partly the role changing (academic becomes part of campus team).

##### ☰ 13:3 ¶ 107 in Uni13

Ventilation in the lecture halls are important, but there are issues with the research methods.

##### ☰ 13:10 ¶ 111 in Uni13

We as managers are the client of this research, and you are the example of a living lab by researching this. How can we get the knowledge on the campus as soon as possible t our own campus managers.

## 0 Codes

## ◇ ○ **Solution: Multiple research groups**

### **3 Groups:**

Diff: Type of involvement / Strat-sub: Assigned Responsibility / Visionary Innovation

### **1 Quotations:**

#### ☰ 5:18 ¶ 120 in Uni5

The energy academy is a building that is build with one thought: to make a sustainable as possible building. The next step is that researchers look at cell biology and plants and use this in the building, instead of mechanical ventilation. That is the next step.

### **0 Codes**

## ◇ ○ **Solution: Research coordinator/portfolio matcher**

### **3 Groups:**

Diff: Type of involvement / Strat-sub: Assigned Responsibility / Visionary Innovation

### **19 Quotations:**

#### ☰ 2:2 ¶ 106 in Uni2

We have to facilitate to find the match between the two worlds. So we need a portfolio manager with innovation demand and supply

#### ☰ 2:5 ¶ 107 in Uni2

It can be better: It would help to have the interface between the two worlds clear.

#### ☰ 2:38 ¶ 106 in Uni2

We paid a research coordinator.

#### ☰ 5:1 ¶ 127 in Uni5

So we have a third party, but I think we should be more involved in them to be able to steer more in business development and housing.

#### ☰ 6:6 ¶ 113 in Uni6

We have almost managed all services centrally from the facility company. Every knowledge unity has a location manager.

#### ☰ 6:20 ¶ 113 in Uni6

This is the interlocutor from a faculty. This person tries to find the match between demand and supply, and to share the knowledge. They are the bridge. Since the integration of the facility domain, this really improved.

 **7:5 ¶ 118 in Uni7**

Perhaps a department is useful where the budget, project planning, facilitation and matchmaking is important.

 **7:16 ¶ 118 in Uni7**

Academic match because of publication requirement might be difficult. This has been addressed to some extent, which is good for living labs.

 **7:35 ¶ 117 in Uni7**

We assigned innovation manager campus some time ago. The researchers don't know where to go, so then we had the matchmaker. But she left. A tiny houses project was one of the only things she did. She was no project leader, so when the project was realised she handed it over to CFM. But it is not their task either. So this was not the solution either.

 **9:36 ¶ 25 in Uni9**

so it is really important to have someone who is assigned the specific responsibility to keep an eye on the implementation of innovation

 **10:5 ¶ 110 in Uni10**

Living labs; we need project management and directing to be able to do this together.

 **10:23 ¶ 97 in Uni10**

It is really about the finding the match in the project planning and the money, and to combine this with the research ambitions.

 **10:27 ¶ 99 in Uni10**

ng biobased materials, installations). We managed to have a part reserved for innovation within the investment. So we organised this beforehand. One of the success factors; we had a project manager who coordinated all. Driver why it succeeded. Or a solution to overcome one of the barriers (role fading).

 **10:38 ¶ 103 in Uni10**

Solution: The product is accepted but there is role change. Living labs project manager is important and who coordinates is.

 **11:3 ¶ 103 in Uni11**

Also there is always needed intermediary organisations between the two worlds.

 **11:4 ¶ 107 in Uni11**

There is an intermediar needed between scientists and managers. We have consultants

 **11:12 ¶ 107 in Uni11**

We need an equalizer or tuner. Knowledge broker.

 **12:2 ¶ 116 – 117 in Uni12**

In the future we would like to have knowledge brokers who can make connections between all these four campuses / ecosystems. Make synergies and co-creations.

What are the skills necessary to facilitate the network management and coordinator role?

 **12:13 ¶ 109 in Uni12**

This is an example of how we use the ‘Universiteitskwartier’ as a living lab for research. With this we showcase what our expertise is.

**0 Codes**

 **○ Solutions: Link projects to research groups (continuity)**

**2 Groups:**

Diff: Type of involvement / Visionary Innovation

**3 Quotations:**

 **1:2 ¶ 118 in Uni1**

One of the lessons learned is to link them to a research group.

 **1:15 ¶ 118 in Uni1**

Polderdak we also linked students to researchers and this helps for continuity on the long term.

 **5:27 ¶ 120 in Uni5**

The energy academy is a building that is build with one thought: to make a sustainable as possible building. The next step is that researchers look at cell biology and plants and use this in the building, instead of mechanical ventilation. That is the next step.

**0 Codes**

 **○ Step wise approach to campus innovation**

**3 Groups:**

Diff: Working practices / Strat-sub: Assigned Responsibility / Visionary Innovation

**1 Quotations:**

 **1:21 ¶ 117 in Uni1**

Think of climate, movements. As a country we are more reserved, we are Calvinistic. We do make steps. We want to know how we can involve the primary process into the campusdevelopment.

## **0 Codes**