advice/report

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Green Office Consultancy

Current knowledge levels regarding sustainability and future actions

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CONTENT

1. Introduction and Goal

This report has been written in assignment from Green Office, an organizational unit of the University of Groningen (RUG). Green Office has been established in 2014 and coordinates and initiates projects related to sustainability at the University of Groningen.

Its goals are developing the sustainability awareness and inform students and staff on sustainability efforts of the UG, increase awareness and an understanding regarding sustainable life environment and foster implementation of sustainable knowledge as a lifestyle. Green Office originates from student movement and in general is run by 5 student employees and two senior employees head Dick Jager and sustainable education coordinator Marijke Nieborg. It also engages people on voluntarily base under "Sustainability ambassadors" concept. The ambassadors are supporting the Green Office voluntarily and help with organizing events, networking and being a part of the community. The ultimate goal is to have "sustainability in University's DNA" as the head of Green Office Dick Jager told us. Green office is supported by Advisory Board consisting of academic and non-academic employees of different faculties at RUG. The board meets once per month to help by providing feedback and advise to Green Office in its operations and initiatives.

The Green office plays an important role in this concept of the sustainable university and is working next to the task force with the focus on people, planet and profit (performance) (Gusc and Heijes, 2018). Inspired by UN Sustainable Development Goals Green Office developed Roadmap 2015–2020 consisting of 14 ambitions (see Figure 1).
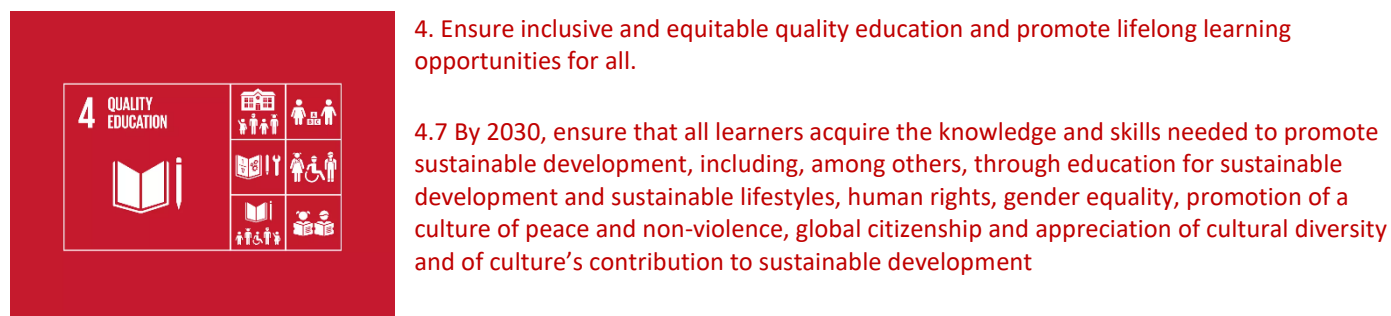

Figure 1: Road Map 2015-2020 (Source: www.rug.nl)

The Roadmap helps guiding efforts and "learn from other organizations" and take a look for instance at the Campus Friesland, as mentioned by one of the interview respondents.

Although, the University of Groningen scores 2018 number 7 on the new Green Metric list, a list of the "most sustainable" universities worldwide (UI Green Metric, 2018), sustainable education aspect requires special attention to be able to meet the ambitions as targeted for 2020 and further to work towards the SDG 4 in 2030 (Figure 2).

4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development

Figure 3 Sustainable development goal 4 on Education Source: UN

Green Office plans to initiate sustainable education activities but faced a problem as "*having no insight in the current knowledge level regarding sustainability among staff and students*" and therefore having little idea on what those activities should encompass; i.e. should it be more local seminars/ small courses or one large MOOC for all?

Green Office's current initiatives attempt to increase sustainability awareness; to give an example it organized 20 events for 400 participants in 2018. One of these was the faculty challenge to measure which faculty is more sustainable (Green office movement, 2018). Lacking of understanding regarding the current level of knowledge may create a misfit between utilized solution and desired knowledge level.

Therefore, the goal of the project is defined as follows: *"Provide insight in the current level of knowledge and advise on how to achieve and measure the desired level of knowledge".*

From the orientational interviews and project description it became clear that Green Office sees challenges with assessing their impact in relation to their initiatives. An attempt to assess the impact GO has at University of Groningen was undertaken in the project as well.

The problem has been addressed in a case study on University of Groningen and has been built on a multiple source of data: University and GO website, GO internal documents, desk research, interviews with stakeholders and quantitative survey.

2. Problem Context and theoretical background

Non-profit organisations maybe somehow similar to politics are blamed for lagging behind the business in recognizing the need for changing the policies and departing from unsustainable model. The piece of art by Isaac Cordal somehow grotesque illustrates this stickiness in *decision-making[1].*

Follow the leaders, Berlin, Germany, April 2011. Isaac Cordal

Non-profit organisations often are in need for professional road and tools to addressing the change. In search for a model to address the problem, the for-profit organisation model for integrating sustainability by Epstein and Buhovac 2014 seemed promising. It has been implemented and is used in multiple companies with success, moreover it explicitly addresses different stages of sustainability efforts adoption which are useful for structuring the efforts and developing advise on the road towards sustainability. It consists of four steps: awareness, knowledge, admiration and action, each stage is a precondition to be able to move further.
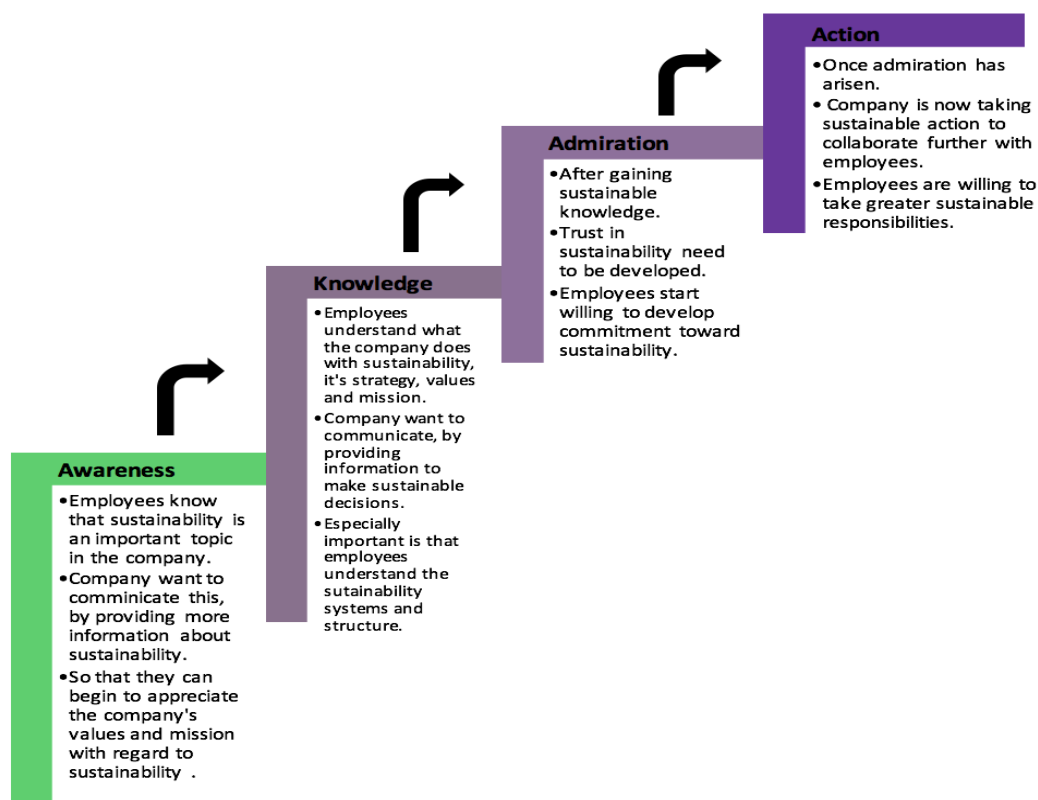

Awareness
- Employees know that sustainability is an important topic in the company.
- Company want to comminicate this, by providing more information about sustainability.
- So that they can begin to appreciate the company's values and mission with regard to sustainability .

Knowledge
- Employees understand what the company does with sustainability, it's strategy, values and mission.
- Company want to communicate, by providing information to make sustainable decisions.
- Especially important is that employees understand the sutainability systems and structure.

Admiration
- After gaining sustainable knowledge.
- Trust in sustainability need to be developed.
- Employees start willing to develop commitment toward sustainability.

Action
- Once admiration has arisen.
- Company is now taking sustainable action to collaborate further with employees.
- Employees are willing to take greater sustainable responsibilities.

Figure 4 fours stages of advancing sustainability at organisation (Model Epstein & Buhovac, 2014)

Sustainability awareness is a challenge which is rather common among organisations and especially among universities attempting to advance their sustainable practices (Wooltorton et. al., 2015). The challenge lies

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[1] Klein, Aleksandra and Lindner, Thomas and Wabnegg, Markus, Implications of Prospect Theory for the Stickiness of Costs (August 14, 2018). Available at SSRN: https://ssrn.com/abstract=3230688 or http://dx.doi.org/10.2139/ssrn.3230688

in different types of activities university as organisation conducts. For example, increasing sustainability awareness needs simultaneously cover not only operational organisational activities, but also activities of university's core business which are education and research.
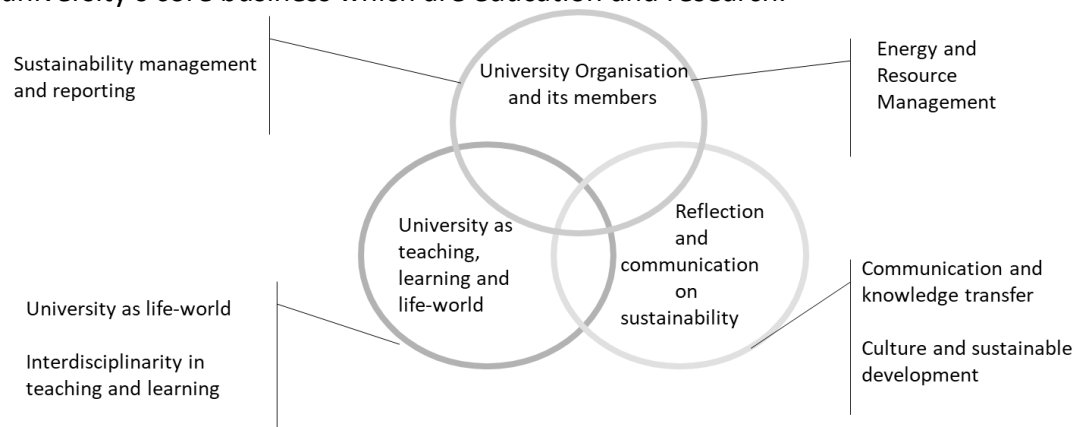

Figure 5 Dimensions of Sustainable University (Adomssent et.al, 2007)

Moreover, understanding sustainability requires comprehension of its three dimensions and its interrelations:

1. Economic sustainability
2. Social sustainability
3. Environmental sustainability.

Each dimension is of equal importance in order to achieve sustainability as Van Weenen (2000) postulates for transforming universities towards "holistic mission". Exploring the level of knowledge on sustainability can provide input for defining holistic mission.

3. Project steps: methodology

Ideally the project would cover the entire population of academic, non-academic staff and students at University of Groningen which is around 36.800 people (RUG, 2018). Due the population size and the project time, the team agreed with GO representative to apply convenience sampling method.

Further, the team has decided to adapt the research strategy for each subpopulation: students, academic and non-academic staff, resulting into a multi-channel data collection. A multi-channel data collection research methodology refers to a data collection process in which multiple data collection mechanisms are used simultaneously to utilize the benefits of each data collection methodology (Liu, Suzuki, Lee, Morikawa, 2013). The project team used quantitative and qualitative data collection methods but also participative observations, group discussions and brainstorm sessions.

The Sulitest, described further in the following section, is a tool to measure knowledge levels divided in student and staff-based questions. On the other hand, direct interviews are used to get the opinion of employees referred to our target group: staff. The Instagram story questions are related mostly to students. Social media is often used by students as "young minds find it more captivating" (Singh, 2017).

To achieve the goal of the project the first focus was on communication. This includes communication with the client as well as with all the other people who have expertise in the field. Semi-structured interviews are conducted to get the most information with least distortion. In directly tackling the problem of the client surveys are used as our measuring tool. The data collection is based on a multichannel approach with the channels: Sustainability Literacy Test (Sulitest), Social Media Approach (Instagram stories) and the semi-structured one-to-one interviews.

3.1. Quantitative data collected through Sulitest (students & staff)

The Sulitest is United Nation initiative for supporting testing and knowledge development on SDGs[2].

In 2012, the idea that emerged in Rio at the United Nations Conference on Sustainable Development first led Sulitest to an experimental phase aligned with the commitments of the Higher Education Sustainability Initiative (HESI) signatories. Sulitest designed an initial platform to foster the mission to, "support expanded sustainability knowledge, skills and mindset that motivate individuals to become deeply committed to building a sustainable future and to making informed and effective decisions.

Sulitest was recognized in 2016 as one of the first featured initiatives of the UN Partnerships for Sustainable Development Goals, and in 2017 as a contributor to the review of the 2030 Agenda through the High-level Political Forum (HLPF) (more on www.sulitest.org)

University of Groningen became member of SULITEST network as an initial step of the current project. Prof. dr. L.J.R Scholtens and Dr. J.S. Gusc are verified institutional representatives of SULITEST at University of Groningen.

The Sulitest makers believe that there is an urgent need to make up tools to educate citizen as well as decision makers on sustainability and corporate social responsibility. Using the test allows for measuring and benchmarking the level of knowledge and awareness. SULTEST vision is to develop Sustainability Literacy worldwide and integrate committed global citizen to make informed and responsible decision. The test should help to build a sustainable future together (Sulitest, 2016). Sulitest provides a learning and testing platform for measuring and improving sustainability literacy at higher education institutions, companies and other organization around the world. Sulitest is recognized internationally, which makes it very relevant for an educational institution such as University of Groningen.

1. *Sustainable humanity and ecosystems on planet Earth: incl. where are we at from ecological and social perspectives, …*
2. *Global and local human-constructed systems to answer people's needs incl. social and economic systems, governance, education, water, energy, food, …*
3. *Transitions towards sustainability incl. initiatives, concepts, examples, how change happens, …*
4. *We each have roles to play to create and maintain individual & systemic changes incl. awareness of roles & impacts, how to efficiently act to create change, …*

The 30 questions of the test are divided into **4 topics** based on SDG themes: Sustainable humanity and ecosystems, Global and local-constructed systems, Transition towards sustainability and Role to play, individual & systemic change.

On each of the 30 questions three answer options are available: one correct, one wrong and one "I am not sure". For a correct answer the respondent receives 4 points, for a wrong answer "0" and for "I don't know"1 point. The evaluation system appreciates admitting not knowing sth. The points are summed in total (max 120) and expressed in % of answers as expected. It takes +/-20 minutes to answer the questions thoroughly.

In current project Sulitest will serve as quantitative data source and will be distributed among master and bachelor students and among academic and non-academic staff. The student's respondents include

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[2] https://www.un.org/sustainabledevelopment/sustainable-development-goals/

participants in several courses in block 1b academic year 2018/19 and staff respondents reached though personal networks of GO employees and project participants.

3.2.   Quantitative data from Social Media (staff)

Using social media help us to get very close to the students and ask them in their natural environment. Instagram seemed to be best option for social media research as it is used a lot by students and it provides useful tools for engaging and interacting with the audience. The tool used in current project is Instagram story including polls (posts that disappear after 24 hours, have higher engagement than regular publications). Students responded to the questions providing insights into their personal opinions and intentions. The questions were designed to assess the level of intention of respondents to act sustainably. The questions were framed in rather radical manner in order to show how strongly people are committed to sustainable actions, which is crucial in designing a policy for action.

Following questions were included in the polls:

Q1: Are you willing to quit using single-use coffee cups? (YES/NO) Q2: Are you willing to stop taking flights for 3 years? (YES/NO)
Q3: Are willing to quit eating meat? (YES/NO)
Q4: Are you willing to give up job opportunities in unsustainable companies? (YES/NO)
Q5: Are willing to turn to second-hand products or/and recycled material ones? (YES/NO)
Q6: Are you willing to pay premium included into fairtrade products price? (YES/NO)
Q7: Are you willing to relate to courses with sustainability? (YES/NO)
Q8: Are you willing to choose local products over big manufactures? (YES/NO)
Q9: Would you vote for a woman as president? (YES/NO)
Q10: Would you switch your toothbrush for a bamboo one? (YES/NO)
Q11: Are you taking part in every election in your country? (YES/NO)
Q12: Do you buy plastic bags? (YES/NO)

3.3.   Qualitative data Interviews (staff)

For the interviews a semi-structured interview structure was used yielding rich insights (Eisenhardt & Graebner, 2007). The interview was mainly related to the respondent's opinion, lifestyle and vision on the university related to sustainability. Interviews as a qualitative method provide deeper insight in order to understand social phenomena compared to quantitative methods (Arbnor & Bjerke, 2009). Hey also allow for probing with the interviewee to clarify the answer or asking for more information on the topic (Tashakkori & Teddlie, 2010).

By using simple and quick questions such as "Do you consider yourself as a sustainable person?", we hoped engage staff in discussion. Especially staff may not have the time for long talks, can easily answer those questions.

Q1: What is your opinion on sustainability?
Q2. If you have to define sustainability. How would you define it?
Q3. What actions do you consider as most important to increase sustainability?
Q4. Do you think your faculty is taking actions towards being more sustainable? If yes, what kind of actions?
Q5. Do you think our university is a candidate for a sustainable campus in the future?
Q6. Do you consider yourself as a sustainable person?
Q7. How does this reflect your behavior?

The respondents were identified by preparing a contact map together with project owners Marijke Nieborg and Gerald Jonker- the clients in this project. We hoped to interview 1-2 persons from each faculty.

With the "contact map" the project team members contacted the individuals or they were contacted by our client to set a suitable time and location for an interview. Based on limited time slots of our contacts, either on team member who was available at these times conducted the interview one to one. After the interview, the interviewer provided a transcript for the whole team and translated the interview if needed.

3.4. Observations and informal conversations

Apart from pure data collection methods used, the team constantly searched on other insights and information related to the topic. The College-Tour event of the University to get to know the new president of the board. We took the opportunity and asked questions in the public event.

The project team participated in meetings at GO, Yong RUG and also observed the responses and reactions of students and employees when addressing sustainability at RUG question during Business Research and Consulting course in which this project took place.

The fact that those experiences gave us important insights, is the reason why we include it in our data collection.

4. Findings

Generally, the findings show little optimistic picture of sustainability awareness and knowledge among students and employees at RUG. Beginning from engaging people to participate in the project was already a challenge. Personal contacts with reminders worked very well but the project team did not reach anybody beyond the network. For student's participation in Sulitest the voluntarily base did not work at all and half-way project team had less than 30 responses. It seems the sustainability is a tiny factor at RUG. The project team met with academic supervisor and project owners to search for alternative encouragement. On purpose the team stayed away from material incentive to fill the survey as it is in contrast to sustainable development ideology. We believe people should engage in sustainable development for its good and positive contribution. The reality showed differently. Beyond a small group of GO affiliated students we experienced little to no engagement in sustainable initiatives. Finally, we decided to use formal road and we make filling out the SULITEST compulsory in on obligatory second year bachelor course @ FEB allowing for reaching nearly whole undergraduate population at one faculty. This worked very well and delivered response (N=293) to perform analysis.
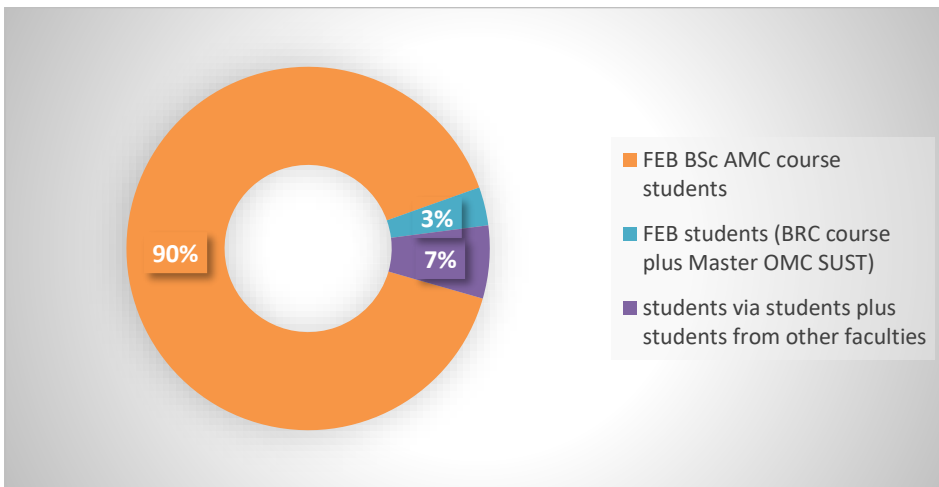
4.1. Sulitest general results

Figure 6 Student's respondents' distribution in SULITEST, N=293

The students of RUG underperform in all dimensions as compared to the students Worldwide and in The Netherlands. The lowest score is on the dimension: "Role to play, individual and systemic change" for Rug student and Dutch students as compared to worldwide. It shows little awareness of the opportunity's individual can contribute towards sustainability.
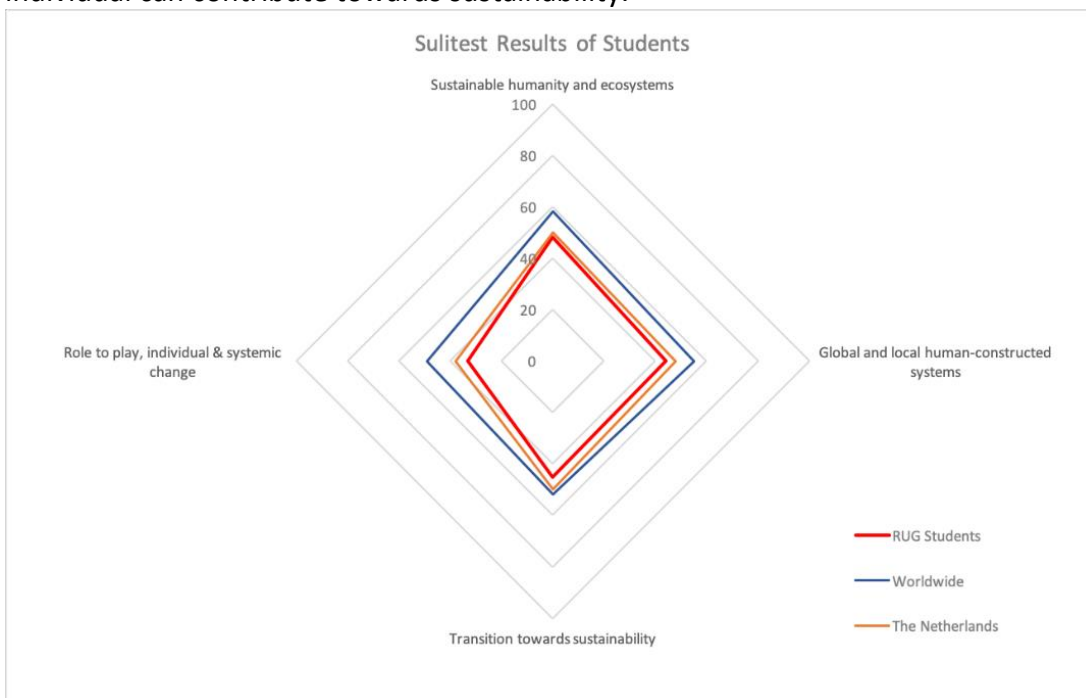

Figure 7 Sulitest results for students N=293

Staff sample was small and is not representative for a faculty or university at large as it included people engaged in sustainability as results of their personal interest or daily work.
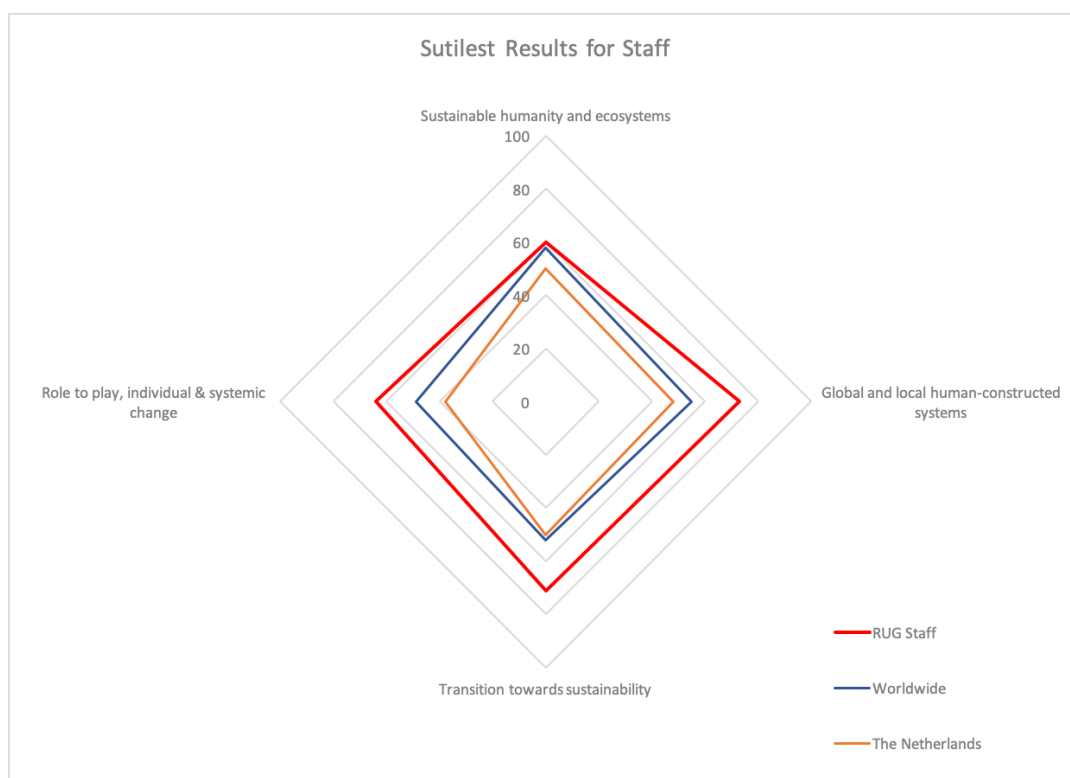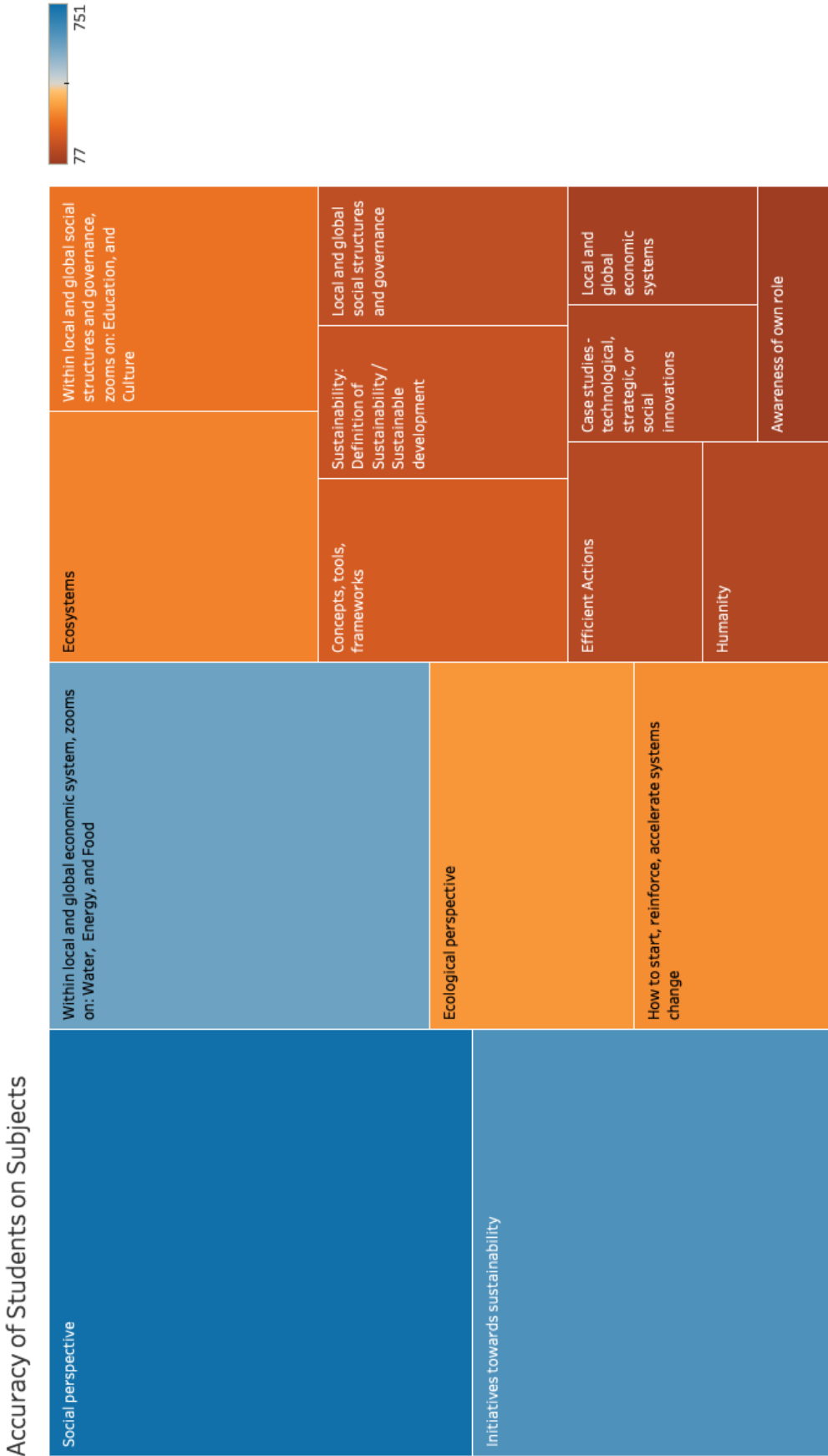
Figure 8 Sulitest results for staff N=29 (of which 12 FEB members)

The results show this group outperform comparing to Worldwide (blue line) and The Netherlands (orange line). Due to the bias we can only draw one conclusion that there is staff @University of Groningen who are standard bearers and may accelerate the movement towards sustainability. It is worth mentioning the overall law score of the Netherlands as compared to the rest of the world, is the country lagging behind?

4.2. Sulitest detailed results on four dimensions

The figure analysing the responses of **students** on the next page is constructed in a way that bigger blocks coloured in dense blue show the respondents who had the highest accuracy of answers. Orange area consists of low-scoring respondents. The darker the orange colour and the smaller the block, the less correct answers were given during the test. Reading from the blocks size and colour, students are confused with the basic and essential matters of sustainability such as concepts and frameworks, they are also unaware of their own role in sustainable development and which actions they would take. The large blue blocks show they know what they probably see on (social) media or hear everyone talking about, i.e. social perspective, food, water and energy resources. But when it comes to examples or case studies, which students can learn from, they do not know many.

Accuracy of Students on Subjects

Figure 9 Sulitest accuracy response dashboard for students

Subject. Color shows sum of Number of Records. Size shows sum of Credit. The marks are labeled by Subject. The data is filtered on Results, which keeps Expected answer.

The figure underneath shows responses of **staff**. The size and density of the block for each question by subject shows the quality of given answer (the larger and the bluer block the more correct answers were given). The trend visible among students is also clear here: little awareness in particular on how to start, reinforce and accelerate systems change as well as how sustainability concerns humanity and ecosystems. Staff shows more (than students) correct answers on global and system levels. Similar to students, staff shows awareness on environmental aspects of sustainability (one dimension) and lacks knowledge on its own role and on examples and cases to teach/learn from.
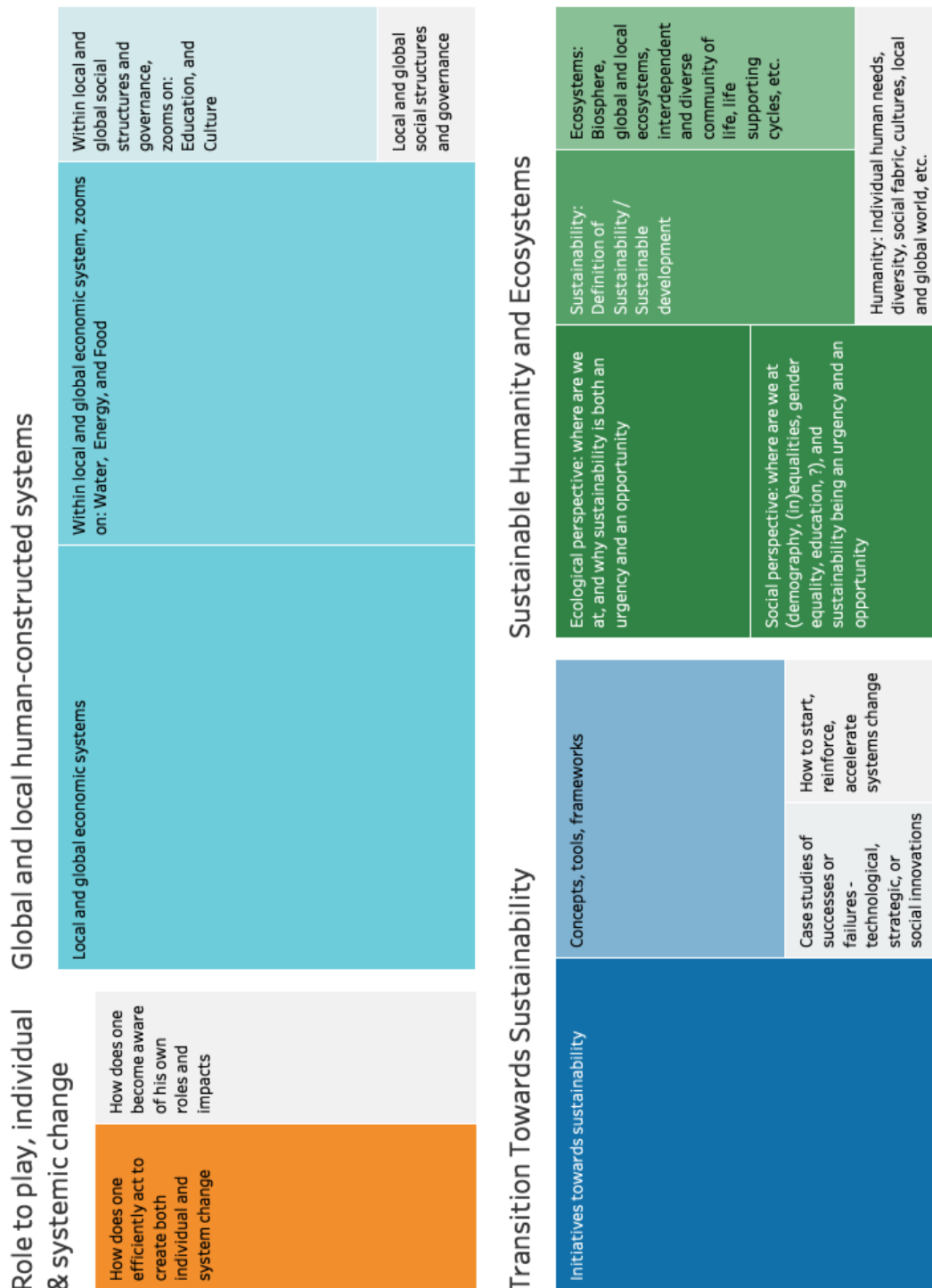

Figure 10 Sulitest accuracy response dashboard for staff

4.3. Sulitest results zoomed in the sustainability subjects (SDGs)

Figure below shows the **students'** answers structured into SDGs taking a perspective on Sustainable Development Goals. The lowest accuracy scores show smaller circles and are in dense red (with accuracy percentage in numbers), e.g. "SDG01 No Poverty" has only 30% of correct answers. The highest score in the figure is 56% on SDG05 Gender Equality.
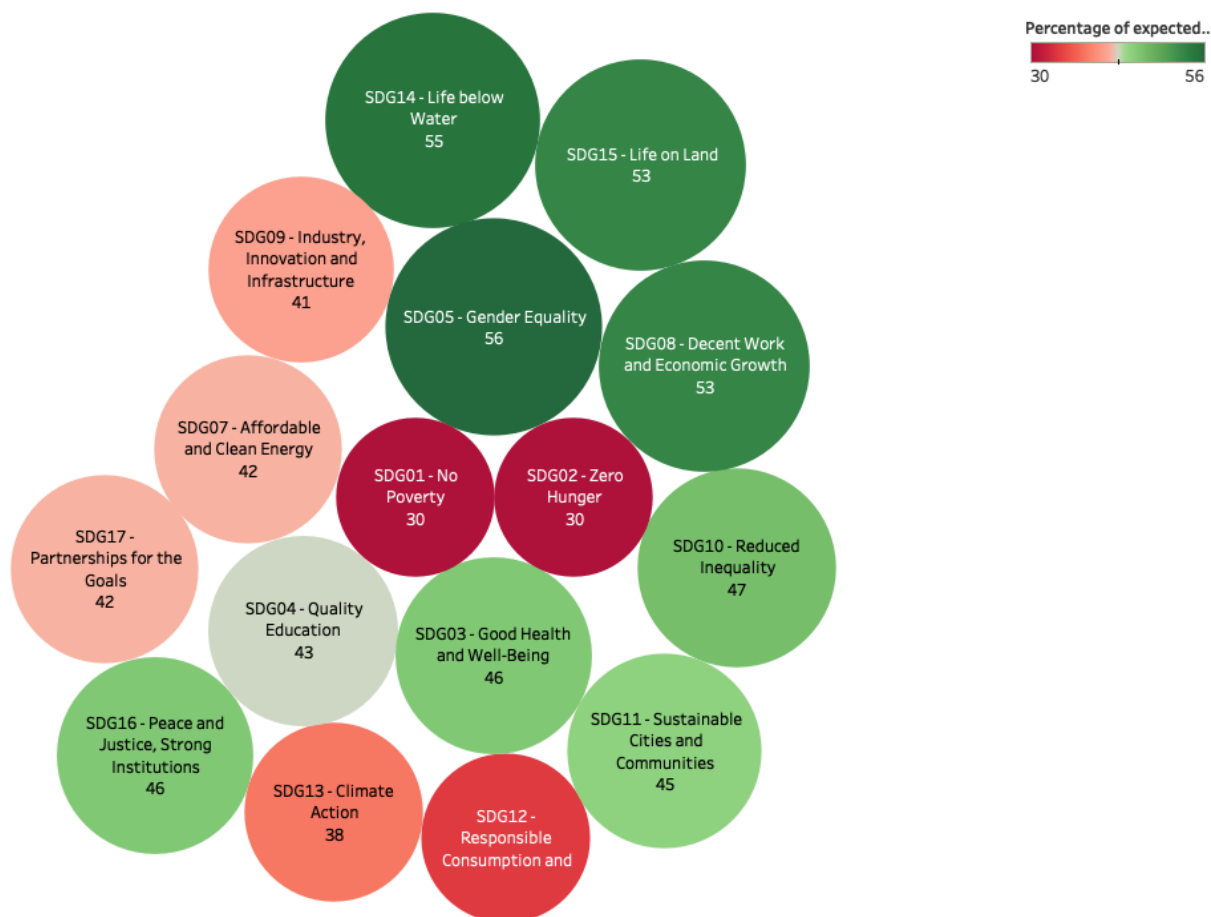
Accuracy Rate on SDGs for Students

Figure 11 Sulitest SDGs topics breakdown students (the lowest accuracy scores show smaller circles and are in dense red (with accuracy percentage in numbers)

Overall picture shows all very low scores. Actually, here it goes without saying that that the current level of knowledge is very low. The students basically don't know how… to act sustainably, what could be their own personal contribution or which actions they should take on such matters as climate change, hunger, poverty, how to consume responsibly.

The breakdown of the **staff's** answers on SDGs shows a slightly different picture, the accuracy scores are clearly higher. The scores show strong literacy on how sustainability is incorporated into economic system and environmental aspects as well as what is being done in the economic world to have more sustainable practices
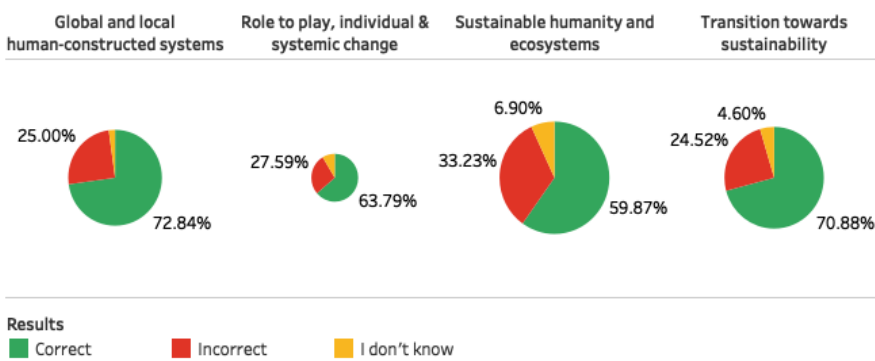

Figure 12 Sulitest SDGs topics breakdown staff (the highest accuracy scores show larger circles and are in dense green (with accuracy percentage in numbers)

However, when it comes to humanitarian world and biodiversity, staff is confused with what is sustainable and what are the goals that needs to be followed. Furthermore, a field that needs additional attention for staff members is bringing awareness of sustainability and fostering change. It seems that the staff is aware of what actions should be taken towards sustainable future, but they do not know how to share that information, how to pass by the best practices of their own role and impact in a journey to sustainability (engagement of others).
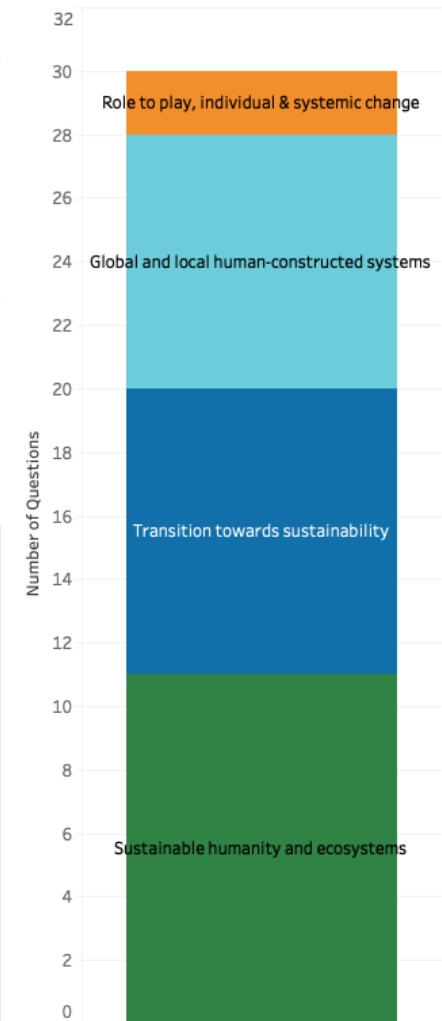
4.4.   Sulitest results – "guess-factor"

Interesting final finding of the Sulitest exhibited in the Figure below is the choice for type the of the answers among respondents. As we mentioned in the methodology section (3.1), Sulitest rewards correct answers with 4 points but it also rewards "I don't know" answer with 1 point. From the incentive point of view, it does not pay off to guess when unsure about the correct answer. Given that we would have expected less guessing in answering the questions and more "I don't know" answers in case people lack knowledge. The percentage of incorrect answers for staff at all four dimensions is around 25%, with "Sustainable humanity and ecosystem" dimension peaking at 33%. We may interpret these results as worrying that staff's knowledge in large proportion is incorrect and they are not aware of it.
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Figure 13 Sulitest SDGs topics breakdown staff (the highest accuracy scores show larger circles and are in dense green (with accuracy percentage in numbers

4.5. Interview results – much potential

Having organised the contact details received from Marijke Nieborg and Gerald Jonker a list of 25 interview candidates was prepared. Due to appointment scheduling issues and little engagement from the respondents, the team managed to conduct 9 interviews, each of approximately an hour. The goal of achieving 1-2 respondents from each faculty of the university was not reached. Furthermore, it was easier to arrange meeting with non-academic than with academic staff: only one of the respondents belongs to the academic staff.

The interviews were transcribed and subjected to qualitative content analysis. The main idea of this approach is to analyse the data not only with the manifest content but further the themes and main ideas of the text as primary content; context information as latent content (Mayring, 2000).

General impression from the interviews is that respondents show a certain basic level of knowledge, with large differences between university units; for example, Health, Safety and Environment showed a deeper knowledge related to UN SDGs or technical development in the future.

Daily tasks related to sustainability naturally enhance the knowledge and provide examples:

"doing research on environmental sustainability. Being extremely aware of environmental problems." Or
"*change the attitude of people towards environmental problems*".

There are clearly different understandings what sustainability means and what it is at the University of Groningen. For example, HR defines it as "employee sustainability":

"*we do more when it comes to sustainability for the employees. So, make sure that we won't get sick, we won't get burnout and we take care of ourselves.*"

Others have no idea:

"*good thing, definitely, it's a question we don't think about it or address enough.*"

Respondents were generally unaware of UN SDGs and just a few mentioned Green Office as unit that contributes to sustainability at University of Groningen.

Related to the question "Do you think your faculty is taking actions towards being more sustainable? If yes, what kind of actions?" it was hard to evaluate the degree of personal opinion or facts of the faculty. Barely every answer has reflected either obvious things such as water taps in the building or waste separation bins.

These are things everyone knows or could see. Only a few answers show informative knowledge about the activities which corresponds to a low level of information among the staff about sustainable activities.
"*Maybe we do more when it comes to sustainability for the employees.*"

Above quotes shows a personal point of view that the faculty is sustainable in terms of employees, it is not a fact that they follow certain goals to increase sustainability in human resources. Medical faculty conducts activities dedicated to sustainability:

"*there is a learning community for sustainable healthcare and 1/4th of the personnel decides to follow this community and learn on how healthcare can be more sustainable*."

Respondents mentioned also that not only actions are needed but changing attitudes:

"*it about thinking switch*"

It is not necessarily about decisions whether to eat more or less meat"

"it's about learning your relationship with the environment and trying to be sustainable means to be aware of how you use the resources"

All respondents were optimistic and believe RUG can become "sustainable campus" in the future but at the same time they all agreed that there is much to be done to accomplish that.

During the interviews we explored personal attitude of respondents. Regarding the question "sustainable person" we got different insights. Respondents who are working on small things like recycling or waste reduction considered themselves as a sustainable person whereas others who do the same things mentioned that this is not enough to be a sustainable person.

"Yes, compared to my fellow people here in the Netherlands. But compared to people living in Africa, no"

"I am not sustainable when it comes to how I live, e.g. housing, travelling. But when it comes to food, we are pretty sustainable"

"Not completely. Maybe there is more much things that I could do better. I am "a kind of" aware or I'll try it"

Topics like CO2 emission or the waste of big companies were not as important as we have expected. Respondents with more basic knowledge put their attention on single-use coffee cups, waste separation and less car driving or flying.

4.6. Social media INSTRAGRAM poll - little engagement

Instagram account of Green Office has currently 500 followers; it makes 1,31% of RUG population. It is to consider, that followers of the Green Office Instagram Account are already engaged in the topic of sustainability and aware of the existence of Green Office.

The campaign run for one week in January 2019 in which 1-3 questions were posted in polls each day.

Q1: Are you willing to quit using single-use coffee cups?
Q2: Are you willing to stop taking flights for 3 years?
Q3: Are willing to quit eating meat?
Q4: Are you willing to give up job opportunities in unsustainable companies?
Q5: Are willing to turn to second-hand products or/and recycled material ones?
Q6: Are you willing to pay premium included into fairtrade products price?
Q7: Are you willing to relate to courses with sustainability?
Q8: Are you willing to choose local products over big manufactures?
Q9: Would you vote for a woman as president?
Q10: Would you switch your toothbrush for a bamboo one?
Q11: Are you taking part in every election in your country?
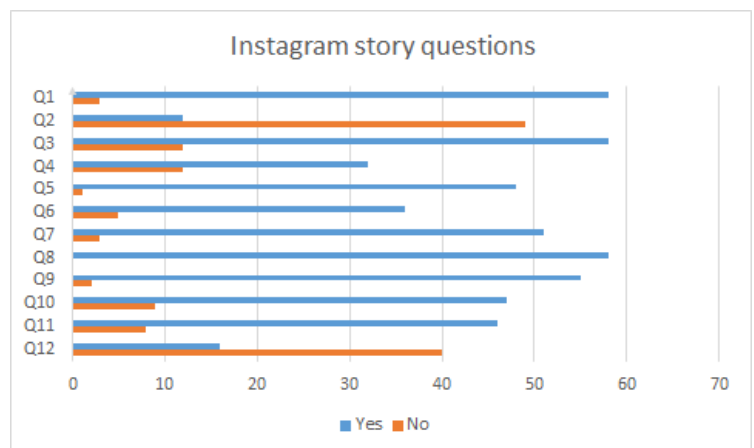Q12: Do you buy plastic bags?

Figure 14 Instagram campaign questions and responses (x-axis are counts)

The results show inconsistent sustainability attitudes; for example, quitting single-use cups but not willing to stop flying. Maybe students are not aware what is impacting the environment more?
The followers are willing to participate in sustainability courses and are all in favour of supporting local products.
Analysing the Instagram statistics showed that posting daily surveys did not lead to an increased number of followers on the account. There was little interest in answering the questions, forwarding the stories and speak with fellow students. Only around 50-60 % of the viewers also voted for the surveys. The number of views were stable between 118-140.

5. Conclusion and Recommendations

The goal of the project was defined as follows: *"Provide insight in the current level of knowledge and advise on how to achieve and measure the desired level of knowledge".*

5.1. Main conclusion

The research output delivers interesting insight but the one consistent throughout all sources of that is that the level of knowledge is low. The project team was truly (negatively) surprised by the results of this project. The quantitative data from Sulitest shows that the level of knowledge on sustainability among students is much lower than among employees.

Coming back to the model of making sustainability work organisations by Epstein and Buhovac (2014), University can enter the first stage of creating awareness among students and employees and enforce more balanced three-dimensional understanding of sustainability (Adomssent et. al, 2007). Due to a lack of understanding of the interconnectedness of the dimensions regarding sustainability, people show bits of knowledge in several stages (Epstein model) and in few aspects of sustainability. The interconnectedness of each dimension is key to understand the concept of sustainability as a whole. Since respondents don't show this kind of understanding their knowledge levels are typed as low.

5.2. Advice

Based on our results we formulate an advice which will help Green Office with dealing with the presented issues. We hope we have provided Green Office insights in the current knowledge levels.

Although the research should be considered as indicative due to convenience sampling method and as described above some bias in the respondents in our research, we don't see this as a reason not to take the results seriously. Our impression is that there is enough material to start working and the results can be visible soon.

I. Continue measuring knowledge level: use Sulitest as a university broad measurement tool

First, we think it is very useful for Green Office to continue doing research on the knowledge levels regarding sustainability of students and staff. This will increase Green Office's understanding on knowledge levels and will give them the ability to focus their efforts to increase knowledge on sustainability on particular subjects if judged necessary.

In order to continue doing research Green Office needs to measure knowledge levels. Before this project there was an absence of a proper measurement tool. During the research project we used three measurement tools being: social media polls, interviews and Sulitest. Given the fact that Green Office's target group is the entire university the measurement tool should be scale-able. Given Green Office limited resources and reach (1,3%), interviews and social media surveys will not work without changing approach to them: Interviews are too time intensive and social media surveys will only evaluate a too small population.

Therefore, we advise implementing Sulitest as a university broad measurement tool for the assessment of knowledge levels regarding sustainability. The test will yield insights in knowledge levels and can collect separate data for students and staff. The results from the test will also be comparable between faculties and other universities around the globe.

In the following link an example of a French university Université catholique de Louvain, that adapted the Sulitest in their organization to increase awareness among students. By scanning the QR-Code you can reach an introduction video.

There are challenges for implementation. For the best result it is important to acquire as much respondents as possible. Therefore, it is advised to implement the test as an obligatory for students and staff. We are aware of the challenges in making the test obligatory but we also saw that making it Especially an obligatory assignment in of a course yields very good results. Maybe even considering attaching ECTS to it. Nevertheless, we see potential in making the test conditional before acquiring ECTS for a course (e.g. similar as a conditional test in English). Meaning that difficulties regarding ECTS will be circumvent. Nevertheless, the system will need to be implemented which will imply some costs, e.g. general implementation and lobbying with course coordinators for implementation.

During the research a free version of Sulitest was used. The research team advises to purchase the premium version. Which will give the ability to track more detailed information, make modifications in test and use as learning tool. This gives Green Office (and lecturers/users) an ability to modify the test as such that it also collects data per faculty. The table on the next page show the initial costs of premium access. We advise to use the Sulitest for at least two years, giving sufficient time to implement and the ability to measure impact on new generations of students.

Description	Costs	Units	Total costs
Year subscription Sulitest Premium	€ 3.000,00	2	€ 6.000,00
Labour costs for implementation	€ 50,00	40	€ 2.000,00
Total estimated costs			**€ 8.000,00**

Table I: implementation costs for Sulitest

II.   Provide more tools and opportunities for sharing sustainability knowledge

Second, we advise providing more tools and opportunities for sharing sustainability views perspectives with students as well as with the other staff members. Staff people at the university have high credibility and have a reputation of interesting people, so their potential contribution to sustainable development of university appears to be high. However, they need support for that. It could be done in public events that engage interaction and exchange of personal views. Whenever someone shows interest and expertise in certain issue, they should be able to bring that to the world, i.e. give a talk or a lecture, post on social media, present during an event. Involving discussion would stimulate the exchange of knowledge, so this should also be taken into consideration. We advise *that Green Office focuses on supporting staff in talks on sustainability, as well as providing opportunities for them to share their opinions, practices and seek response and feedback.* This would help to engage more people in sustainable development and bring sustainability to the minds of others, in the end, increasing awareness.
Green office role is in identifying employees intrinsically sustainable who can become "standard bearers" as they accelerate the movement towards sustainability. They are in need of tools to their jobs as our results clearly showed.

III.   Make Green Office role in advancing sustainability @RUG more prominent and more visible

Furthermore, the consultancy team received the question on what was the next-best move for Green Office in order to make a positive impact on awareness and knowledge regarding sustainability. For this the team mainly reasoned from our own, student's perspective. Following the model of Epstein & Buhovac (2014) starts sustainable behaviour with achieving awareness. And as shown by the Sulitest results perform RUG students (mainly FEB) below national standards. Referring to a low level of knowledge, which is the second phase in the model. The model stages are conditional to one another, meaning that Green Office should work on acquiring proper awareness and after that works on increasing knowledge.

Moreover, based on the quotes related to Green Office activities, the presentation to faculties could be stronger. During the interviews, we got the feeling that employees are not well informed neither about Green Office and their activities nor about the actions which are taken by the university. The online presence

of Green Office can be an explanation for this. Currently, Green Office reaches +/- 1200 people through Facebook and +/- 500 through Instagram. Given the entire university population of 38,000 this is a very limited reach.

If Green Office wants to have an impact for the entire university, it needs to focus on growing its reach. Green Office should increase communication and information degrees via different channels such as mailing, Nestor, Facebook or Instagram. Also workshops about Sustainability in the university such as during the "Sustainable Education Event" (05.02.2019) is a good option. These workshops could be regularly and per faculty, so that everyone is informed about current and future actions.

Especially growing through social media is something with a lot of space for growth. Following the perspective of students, good content is a key. Meaning that Green Office should make their social presence and content more attractive in order to grow their followers. As long as Green Office delivers quality content on a regular basis it will be able to grow it's following and therefore its impact (Vaynerchuck, 2018). Growing through social media requires a certain set of skills and knowledge. It is advised that Green Office starts co-operating with social media experts. For example, the main social media channel of the University of Groningen delivers good quality and engagement, meaning that there is sufficient expertise within the university. In order to start working on this point of interest it is advised to find the expert and work together on increasing Green Office's presence.

For future research steps in generating efficient data from academic staff, as the majority of this research consists of non-academic staff, these regular workshops could help. With surveys in workshops, seminars or education days, opinions of academic staff could be collected. This could lead to several goals: increasing the visibility of Green Office, increasing the knowledge about current and future activities about sustainability and also to collect data of academic staff. Next to general workshops about sustainability at RUG for instance, it is advised to work on the SDGs. With seminars related to specific SD goals, the knowledge level will increase. Moreover, these could be also related to the Sulitest results. The weaker the results in questions related to specific goals, the more education in that one is needed.

Finally, during college-tour we participated we collected the following words of new President of the Board of University of Groningen – Prof. dr. Jouke de Vries:
> *"it is not enough talking about sustainability but we have to show sustainable behaviour"*
> *"developing all kind of (sustainable) programs"*
> *"adapt the Development Goals of the United Nations"*

Having heard that we trust there is strategic support for the ideas in this report. We hope to see first actions soon.

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7. Accountability

Accountability statement for business research & consulting

To be attached by students registered in the faculty of Economics and business at the University of Groningen, to the portfolio of business research & consulting course.

We hereby declare that we are the authors of the attached documentation/portfolio or the sections thereof for which we are responsible, herein after referred to as this portfolio, and that all materials from reference sources have been properly acknowledged.

We understand what plagiarism is and what penalty may be imposed on students found guilty of plagiarism by the University of Groningen.

Plagiarism & External assistance

We verify that this paper contains no plagiarized material, and that we received no external assistance from unauthorized outside sources:
- All quotations taken from other works have been referenced to the source from which we obtained them and indicated in this portfolio by the use of quotation marks of indented paragraphs;
- All paraphrases and summaries of material taken from other works have been appropriately framed and/or referenced;
- In our bibliography all works from which we have taken ideas of or consulted have been included and appropriately referenced with the correct formatting (APA 6th Ed.);
- We verify that this is our own body of work and that we did not receive any unfair outside assistance from others (including unauthorized collaboration) in its creation.

We verify that this portfolio (or any part or subsection of it) has not previously been submitted to the FEB or any other faculty or educational institution previously.

We verify that the work that is responsibility of each of the following members:
- *Martijn Bakker   S3523608*
- *Neslihan Bekdemir   S3504069*
- *Ekaterina Ivashneva S3843505*

Each of the above members has contributed fairly and equally to the development of this portfolio.

The following member has been excluded from the project group and the development of this document due to internal difficulties of which the supervisor is aware.
- *Jose Contreras   S3828433*

8. Raw data files

The content from the appendices (which are not public) includes raw data. In case of question about those files please contact academic supervisor of the project: They can be Dr J.S. Gusc (j.s.gusc@rug.nl).

The data collection document exists out of the following content:
1) coding table
2) Social Media questions
3) Interview transcripts
4) Standard invitation Email for Sulitest
5) Instagram posts