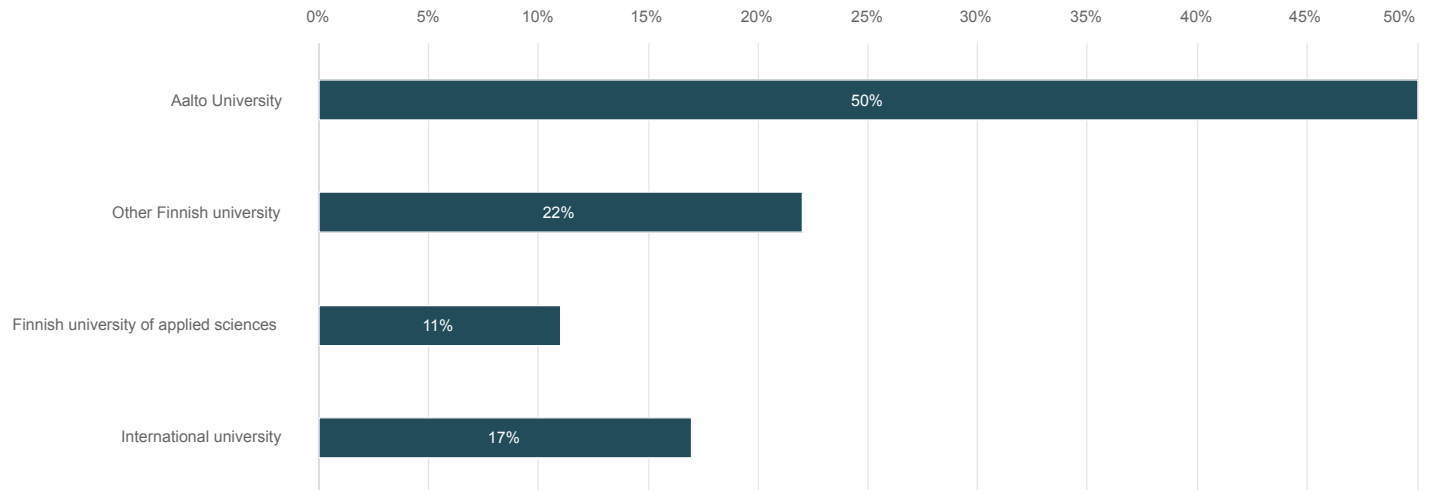


# Perusraportti

## WAT Survey 2020

### 1. Your previous degree (before WAT Master's Programme) is from:

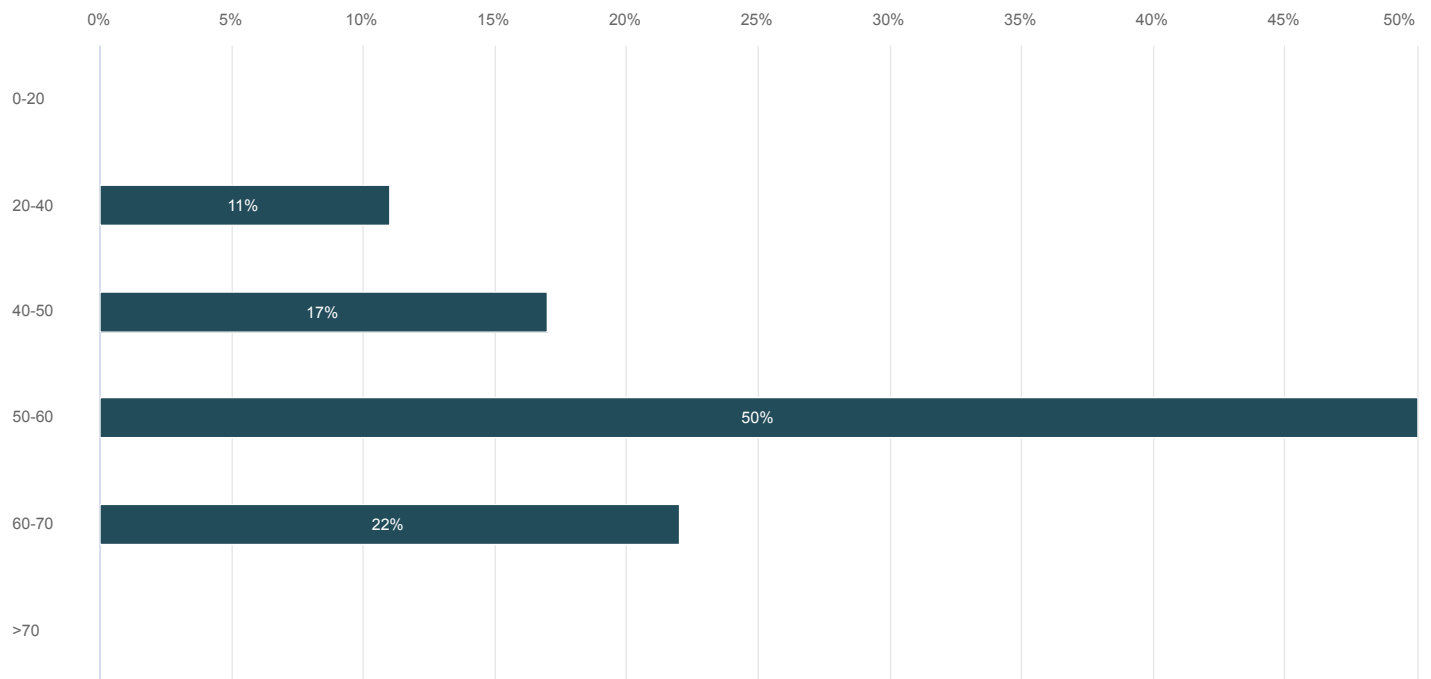
Number of respondents: 18



	n	Percent
Aalto University	9	50%
Other Finnish university	4	22,22%
Finnish university of applied sciences	2	11,11%
International university	3	16,67%

## 2. The approximate number of credits you have achieved during the first year in WAT Master's Programme:

Number of respondents: 18



	n	Percent
0-20	0	0%
20-40	2	11,11%
40-50	3	16,67%
50-60	9	50%
60-70	4	22,22%
>70	0	0%

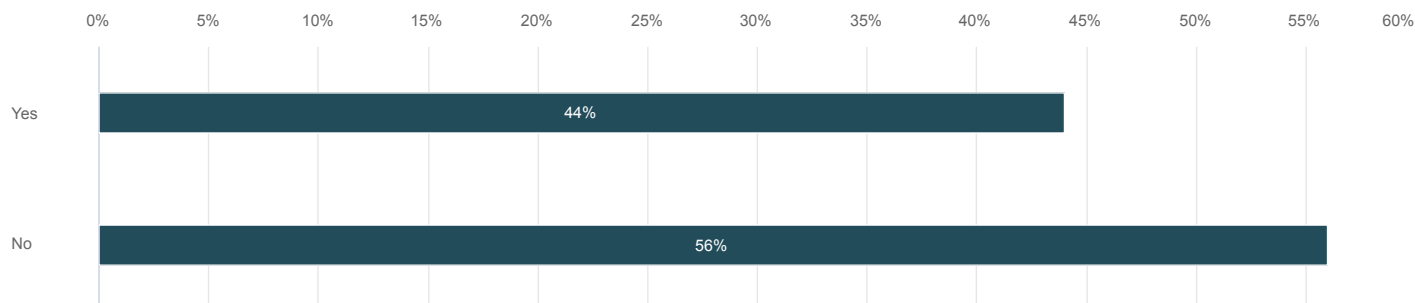
**3. Please, elaborate shortly on the number of your credits: Why have you studied this amount of courses, and are you satisfied with it? Does the number of credits correspond the planned amount? Why/why not?**

Number of respondents: 18

Responses
I achieved 28 credits during my first year (only periods 1 and 2) in WAT program. I decided to take a little brake from the studies and work abroad instead, so I didn't study at all in periods 3 and 4. I was supposed to take a couple of courses in period 5, but then corona happened and I decided to take them next year instead. I want to study those courses properly with contact sessions. A part of the reason I didn't take those courses was that I continued working full-time here in Finland.
I have tried to follow the advised two courses per period schedule, although I have also taken language courses alongside my major studies. I planned on doing 60 credit during my first WAT-year but at the moment it would seem I will have either 59 or 61 credits completed depending on the credits of a MOOC-course. According to the planned schedule, the advised amount of credit was 55, meaning I am on track with the credits, which I am pleased about.
My goal was about 60 credits, but I took a 3 credit course so my total will be either 53 or 58 depending on if I can do an exam to pass one course. I'm pleased with this amount of credits, as it is quite close to the goal I set for myself.
I studied 60 credits and I feel satisfied with it. I had trouble getting the 60 credits, since if i took 3 5 cr courses i was struggling with time. Usually in my previous studies i have been able to do 15 credits a period without bigger problems, but here it felt sometimes impossible. I studied this amount, because i am aiming to graduate in two years.
I have studied according to my initial plan. I took the advice that I shouldn't hoard courses, because they are laborious, and I am very pleased with my decision. I have taken 2-3 courses per period, which has already been a lot, but I have been able to focus and learn more, when not taking too many courses at a time.
I dropped one course for next year 'cos it had lab sessions and my schedule was too tight to get there. Don't wanna rush with interesting courses :D
My plan was to get 55 credits but one course got cancelled so I only got 50.
I got about 55 credits, the aim was 60 credits, but remebering that I did my bachelor in less than 3 years, I decided to take just a little bit of break for this year.
I followed the main track, taking the suggested WAT courses during the year and added a couple of language courses. The year was pretty busy, but about on par with what I was expecting workload-wise.
I have completed 45 credits. Three of those credits were for language courses. I had other required courses than the WAT students, so I had to take those, but for me, the important thing was to take all the courses I was interested in (water resources and development tracks) and wasn't trying to just take the minimum credits I needed.
I have studied 60 credits because I want to graduate before next summer. I planned to get even more credits during the first year, but decided to drop a few courses because I didn't want to wear myself too much.
I have completed 70 credits, opting major courses and i have planned to complete more than 60 cr. Yes I am satisfied with it.
So many interesting courses, also other classmates seemed to exceed the recommended credit amount of 10/period. 60 would have been enough, this amount was a bit stressful. I did drop some courses, so the planned credit amount was even higher!
I think I've done a couple courses less than what would be ideally planned for WAT students during the first year. However, this was a conscious decision because the workload of WAT courses is very heavy compared to undergrad studies and I have also been working part-time. From the get-go, I planned to take a few less courses than recommended (I've still has 2 courses in most semesters) so my studies have advanced at least as well as I planned, if not better. I am satisfied with my hard work although it has felt like a heavy load.
In last autumn I still did some bachelor courses, and did my best to keep up with normal 60 cr/year studying rate in masters not to fall behind too much. As total I did over 60 cr, which I'm very happy about and progressed in master studies little more than I planned.
I have been working and studying part-time during this year. Except the first 2courses, I took one course/ period, together with 3 credits from Special Course and 10+ credits from Product Development Project course of Design Factory. The number of credits still corresponds to my plan perfectly.
30 credits of master courses 37 credits of Bachelor courses More actually than I thought to do master courses this year.
I planned to study around 60 credits this year, which I have so I am happy with my effort. I aim to finish my degree in the two years that a Master's degree is supposed to take.

**4. Have you worked during your studies?**

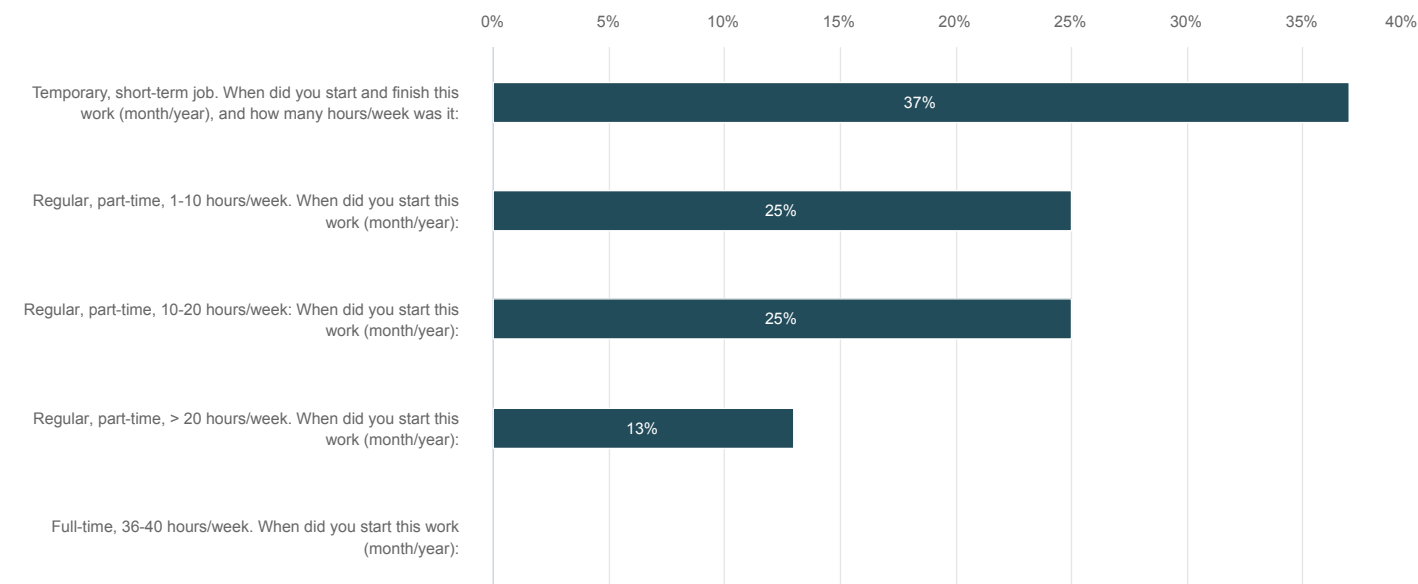
Number of respondents: 18



	n	Percent
Yes	8	44,44%
No	10	55,56%

**5. Please, select the option that best describes your working, and specify in the text box:**

Number of respondents: 8



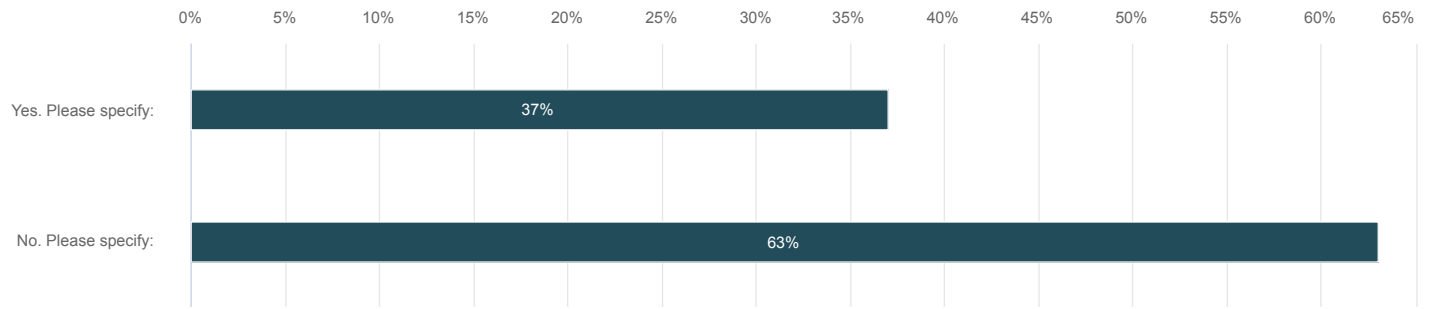
	n	Percent
Temporary, short-term job. When did you start and finish this work (month/year), and how many hours/week was it:	3	37,5%
Regular, part-time, 1-10 hours/week. When did you start this work (month/year):	2	25%
Regular, part-time, 10-20 hours/week: When did you start this work (month/year):	2	25%
Regular, part-time, > 20 hours/week. When did you start this work (month/year):	1	12,5%
Full-time, 36-40 hours/week. When did you start this work (month/year):	0	0%

## Answers given into free text field

Option names	Text
Regular, part-time, 10-20 hours/week: When did you start this work (month/year):	12/19
Regular, part-time, 10-20 hours/week: When did you start this work (month/year):	Although I only did two months due to the virus situation. Started in Jan 2020 and ended in March.
Temporary, short-term job. When did you start and finish this work (month/year), and how many hours/week was it:	Gym instructor for 2-6 hours per week since Jan2016-Dec2019, Production Engineer for 10 hours per week Sep2018-May2019, Full-time Guide in France Jan-Mar2020
Temporary, short-term job. When did you start and finish this work (month/year), and how many hours/week was it:	Zero-hour contract, occasional work during busy days. Approximatly 0-6 h/week, started in August and still continues.
Temporary, short-term job. When did you start and finish this work (month/year), and how many hours/week was it:	Assisted in the Design and Management of Water and Wastewater Networks course. About 85 hours total from Feb to start of May
Regular, part-time, 1-10 hours/week. When did you start this work (month/year):	Was full time before studies - transferred to full time when i started at Aalto
Regular, part-time, 1-10 hours/week. When did you start this work (month/year):	5/2019
Regular, part-time, > 20 hours/week. When did you start this work (month/year):	February/2019

### 6. Is your work related to WAT field?

Number of respondents: 8



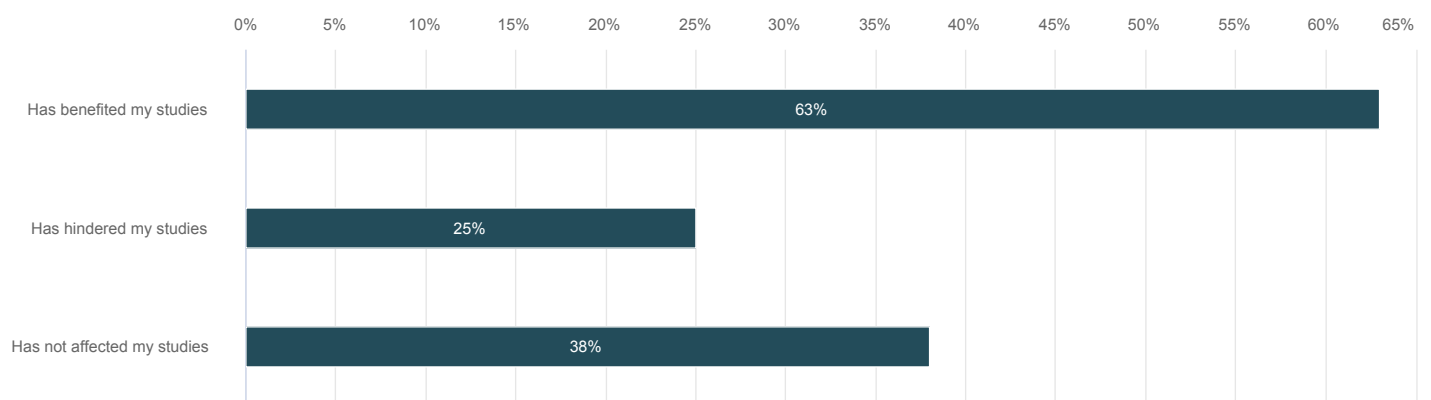
	n	Percent
Yes. Please specify:	3	37,5%
No. Please specify:	5	62,5%

### Answers given into free text field

Option names	Text
Yes. Please specify:	ELY center
Yes. Please specify:	working for a water consultancy
Yes. Please specify:	It was assisting a WAT course
No. Please specify:	food industry
No. Please specify:	No, it was just a mean to for living
No. Please specify:	I'm working with energy consumption of railways at the Finnish Transport Infrastructure Agency. Although it doesn't directly relate to WAT, it is an engineering-style job and shares similar values with WAT.
No. Please specify:	GIS, Machine Learning and Information Technology

### 7. Has your work affected your studies (benefited/hindered)? Please specify your answer(s) to the text box after your answer(s).

Number of respondents: 8 , selected answers: 10



	n	Percent
Has benefited my studies	5	62,5%
Has hindered my studies	2	25%
Has not affected my studies	3	37,5%

### Answers given into free text field

Option names	Text
Has hindered my studies	During the first months, I was also during a "busy period" for my studies, and that month was stressful, but it became ok after that busy period ended (busy was primarily due to courses that I am not good at happening in the same period)

Option names	Text
Has hindered my studies	I probably could've put more work into my studies if I wasn't working.
Has benefited my studies	I have learned so much from working even though my work hasn't been related to WAT field.
Has benefited my studies	I've been able to see how things are done in practise.
Has benefited my studies	Random things I've learned at work about, for example, Excel has benefitted my studies. Just being in a professional environment in general has given my studies perspective.
Has not affected my studies	The work time were so small and occasional, it didn't really affect my studies
Has not affected my studies	Has not affected my studies negatively.
Has not affected my studies	Sometimes it was difficult to balance work and study as my work could flucuate alot from week to week

## 8. What are the most central pieces of knowledge you have learned during your first year of studies, and why do you consider those important?

Number of respondents: 18

Responses
The most important pieces of knowledge must be related to the first course of this program, 2courses. It was a perfect introduction to the field and this program. I learned, that water management is a big part of the society and decision making and that it requires a lot of interdisciplinary work. I also learned more about the job opportunities in this field.
The broad contexts of water and environmental scopes across boundaries and contexts. The societal frame is highly relevant when analysing the issues in the field and should never be forgotten because that is often the factor determining whether proposed changes are long-lasting and sustainable or only short-term changes. Connect the different sectors in the field and see their importance in the bigger picture.
Water treatment: Domestic water and clean water in general are necessities and I learned so much about how the water and waste water treatment processes work. Aditionally I learned about the networks that provide water + collect waste and runoff water. Water behaviour: An equally important aspect is how behaves in nature and how we control that water to prevent floods, pollution and generate hydropower. It has also been interesting to learn about water use in the past, currently and in the future to see how and where water is consumed. Sustainability: Sustainability seems to be a great solution to maintain our way of life while also reducing spending/pollution and using resources efficiently. Sustainability gives a possible solution to prevent further damage to the environment.
Water and governance related things, since they were new to me. Hydrology.
-Complex groundwater systems -Hydrology, soil hydrology and transport of substances -Connections to environmental and human health, human impact -Factors of water and soil quality -Water crises -Water utilities – Organization, operation, treatment -Hydrological modeling -Statistics, mathematical problems -Producing scientific text I consider these important, because they have all been the most interesting to me. Through learning about the things listed, I have gained a better understanding on the whole of water as a resource. It has occurred to me how these things are linked, and what makes water crises difficult to solve. These central pieces of knowledge have also made me feel secure about my field of study, I have been enjoying the courses very much.
I have learned a lot about global water related issues. I have widen my perspective a lot, even I knew some of these things already. I have also deepened my knowledge on urban water management sector which is my main goal as it's my career goal as well.
- Sustainability, its complexity and how it is implemented - Hydrology and how it is modelled - Water governance, important because all water fields are somehow related to governance
First of all about the field: the information and knowledge that I gained corresponded to how I previously imagined. Many studies were connected to the bigger content, e.g. at EU or global level (compared to by Bachelor's), and these learning processes were not only new but also interesting for me because my dream is at a more international level. Two courses very good start, as it helped me to identify which specific fields I am more interested in the beginning, so that no need to do useless extra work in finding what suits me best. It seemed to be less mathematics that I would expect, but now at the end of the first year, this kind of content is getting more and more.
- Water management issues in Europe/Finland - Flood analysis - Groundwater analysis - International development experience - Insights into governance and policy - Data and research tools
More information about SDGs, policy, and management in Europe. It is important to understand the context that our work will be done in, and what the objectives of the related policy are.
This is a difficult question since all of the WAT courses have taught me different aspects of the field of water engineering. Also, I can't yet know what knowledge will be the most important for me. Perhaps the Water and People course that's running right now has been the most interesting this far knowledge-wise. I find global issues an interesting and important topic to know about even if I wouldn't directly work with them in the future. Also, the Environmental engineering course felt useful and interesting especially for the knowledge aspect. I think all of the courses have some valuable knowledge taught to us, but as most of the courses try to achieve all knowledge, skills and identity, they become sometimes hard to separate and analyzing the courses through them becomes also difficult. I'm not sure does this belong to the identify skills or knowledge, but the course Water and Governance taught me a lot about the frame and context in which engineering takes place. It's important to understand where the power lies and decisions are made if one wants to be more than just a simple implementer.
Water and Waste water network designing. Waster and wastewater treatments. Water Resources Management Because these are according to my interest and career plan goals.
system-thinking, engineering approach in general, and treating wastewater.
What stands out to me the most from my first year is the knowledge I have gained about water and wastewater treatment processes. I started knowing absolutely nothing. Now I have a basic understanding of the general components of drinking water and wastewater treatment processes. I have knowledge about different possibilities that exist such as chemical, filtering, and biological processes. I also have a basic understanding of what is necessary for modeling these processes. Another big area of knowledge I think I've made big process in is understanding governance and structures that are in place to regulate water and environmental actions. I've learned about the Finnish government, Finnish legislation, EU directives, permit processes, and organizations.
I have learned how different things can be part of water and environmental engineering. From modeling for example precipitations and many other things to governance structures. It is important to know what kind of things it is possible to do in the future, but also makes it hard to decide because they all seem very interesting. In my first year I got to deepen my knowledge about water purification processes and sustainability in environmental engineering as well as how people are affecting on water and vice versa, just to say few.
The principles and framework in hydrological restoration, conservation projects Hydrological cycles, environmental hydraulic and interaction between different variables which affects the water level, water flow in different scale. Principle of water and environmental quality. Recognition of social context on water issues. These are are the central knowledge which helps me understand the state of the water issues and the world to be able to interpret the interest and analysis needs of each stakeholder in water related project in bigger context.
Team Work, timing,
I have learned a lot about water governance and the global water challenges. These are central topics in the water field and my interest towards these topics has grown thorough the year.

### 9. Is there some knowledge you expected/wanted to get but did not get? What is it, and why you did not get it during your studies?

Number of respondents: 18

Responses
When you don't really expect anything, it is easy to reach those expectations.
It would have been nice to at least have the one environmental engineering course of environmental risk analysis but given the circumstances, it was understandable the staff was not able to organise the course.
I have learned so much about water, but I hoped to learn about other areas of the environment too, e.g. air quality, nature and soil too. Unfortunately courses about these subjects couldn't be organized. Thankfully my bachelors focused on those parts, so I have previous knowledge.
I would have really wanted to have studies in the field of environmental technology, and I feel quite disappointed that I am not able to get them from Aalto.
I have been very interested in stormwaters and stormwater quality & management. I have not learned much about this, and I really would have liked to. I think it used to be a theme in the Urban Water Systems -course, but it was cut out because the course had too much content (?). Maybe there could be a course focusing solely on urban storm waters?
Modelling courses could have included more about urban water issues instead of some rural water issues. It felt bit frustrating to focus on some forestry and agriculture water issues as I would like to work in urban environment.
No
Even though WAT did not require an engineering background when I applied, but it would certainly be very beneficial, and now I am lagging behind with some of the content, or it takes a much longer time for me to understand a concept and especially "why a thing happens/is like how it is". This is understandable, since we are indeed at the school of engineering, this is a master's programme and most mates do have an engineering background. I think I would go back to some contents during the summer (if got time) and try to understand them better.
- There was a lack of the 'environmental' part of the masters, as the courses were very water-heavy. I didn't mind so much, but it would have been nice to explore some other areas of sustainability a bit more.
More projects based on design
I would have liked to learn more about Environmental Engineering. I expected there to be more opportunities to learn about this topic, as it is in the name of the program. However, I understand that we discuss many environmental issues and aspects in the water engineering courses also, which is good. And I haven't still done all my WAT courses, and because I heard I can take MOOC Circular Economy course, my share of environmental studies will still grow.
Programming language Will select minor related courses, because was over occupied.
Stormwater related subjects.
I've had a bit of a think about this but I can't think of anything. My courses have quite well met the expectations in terms of knowledge.
I don't think there is anything especially that I planned to learn during these studies. Maybe something evaluating environmental risks would have been interesting and useful to learn.
I haven't had chance to take some of other courses of WAT yet, and many of knowledge that I lacked was planned to be taken next school year.
I would want to learn more about storm water
I wish to have learned more about the environmental engineering side which seemed to be lacking from our course selection to some extent. I would have wanted to learn more about topics such as circular economy, environmental chemistry and sustainable design.

### 10. What are 1) the key skills (practical tools and methods), and 2) the key identity skills (working life skills, values, attitude) you have learned during your first year of studies, and why you consider those important?

Number of respondents: 18

Responses
The key skills I learned are groundwater modelling, statistical analysis with R and using GIS in water and environmental engineering. I believe those are important since they are also the things that I am interested in. I think I learned a lot of other useful skills, but I just don't see them as important, because they are not so interesting in my opinion. The key identity skills for me are definitely related to getting to know who I am and what I am actually already capable of doing. I have realized that I can do and know, in fact, quite a lot already and what I don't know, I see as a challenge, not as an obstacle. During my time in France I also realized that I am happy with doing many things, so I won't set too specific boundaries for my future career, but instead try to use every opportunity I get. I also improved my presentation skills and English, both during studies and working abroad. I wasn't too confident during the first weeks of this program...
How to make a well-structured report and what it should include. Additionally, I learned to make better informative graphs and overall enhance my skills in data visualisation. Additionally, I learned a bit more coding (python and R-studio). I gained more skills in choosing different frameworks to analyse problems and search for information in a critical manner. I learned about my strengths not only as a student but also as a team member. I also know what skills and habits I should still develop related to working in a group. I was able to set a more precise direction for my studies, as at the beginning of the year I was not quite sure about what I wanted to specialise at.
Teamwork: In my opinion, teamwork skills are the most important thing regarding working life, which is of course the goal of education (to move to working life with various skills learned already). The courses have had a nice balance of teamwork in exercises and in class. Datahandling: Almost as important to me is data handling with various software. I have learned so much new skills with Excel and other programs and these skills will surely help me in the future. Coding: coding was completely new to me and has been hard. however, it is an important skill to at least learn the Basic of and understand what can be done with it. English: My English reading and speaking skills have also improved a lot. If I will work in Finland I may not need English that much, but it will anyway be an advantage to have good English skills, since it's the language of science and widely used.
I learned a lot about modelling hydrology related things with different tools. I also learned that I really like modelling, even though I had never done it before. I learned time management.
1) -Computational methods: Excel, GIS, R, Python -Writing reports according to demand – key points in 50 words vs detailed, long reports -Working in water and soil labs -Understanding scientific text, expressing an interpretation and rationalizing it -Reviewing scientific articles -Basic parameters and concepts of hydrological modelling 2) -Presenting my ideas, data and results -Time management – prioritizing tasks -Public speaking in a second language -Critical thinking -Linking information together to understand issues on different scales What comes to group work, I have gotten experience in listening to others, expressing and rationalizing my own thoughts, as well as understanding group dynamics. Even such practical things have occurred as being able to openly talk about problems in the group dynamics. It is always difficult to give constructive criticism to a group member, especially to ask why they are not doing their part. I have also thought a lot about how to contribute enough/letting others do their part in group work. The computational and academic skills of reviewing information critically have been two of my main learning targets during the first WAT-year. In my Bachelor's studies I didn't learn enough about computational methods, I think. I have also enjoyed all the group work during this year, which has been plentiful and rewarding, because in the future (when working) I'm sure that communication skills are among the most important. I think I have also gained a lot of self-esteem through the many presentations held, not to mention in my second language. I am more comfortable now speaking to a crowd. One of my former weaknesses was also time management, and I think I have been able to reduce my stress levels while still putting a lot of effort into my work, by prioritizing tasks!
First of all I have learned loads of modelling and this would be really good point to get those skills to action for some company so I would not forget those tools. Also my R coding skills have increased which is really nice! Last of all my English is so much better than it was in the beginning of semester :)

## Responses

- Learning to use new modelling tools, such as scalgo and R - Problem solving and independence

A lot of team work compared to my Bachelor's. In addition, again, thanks to the two courses which kind of forced us to get to know the people who are studying with you and who stand with you, creating a "back-up network" for studies (again, compared to my Bachelor's, we also had a lot of freedom to choose courses and paths, and the results were that apart from the people you get to know from events and parties, you have no idea who are in the same programme and even how much people is there who got into the same program during the same year). Modelling is pretty new to me, so everything about modelling is, and I believe will be beneficial for my future career (taking into account how "general" modelling is and how it could be applied in almost any setting). Surprisingly I have not learned too much about values or my attitudes. This could be due to the fact that I kind of already found my values and what I want for the future when I was doing Bachelor's, so these things would not really change in the short-term.

It's been fantastic to take a step back from working like to reassess what part of the industry that I want to focus in. I have enjoyed getting a taste of what it is like on the 'research' side, establishing research questions and using data and scientific methods to approach them. I also really enjoyed beginning to explore the governance and policy themes and feel better equipped with the methods and thought processes to explore them. I've gotten much better at handling data (especially with R and GIS) and my use of water-based tools has improved (SWMM, SCALGO etc.)

Data analysis and statistics. Modeling. Important for design work and assessments

Even more than in the knowledge part, I feel many of the courses had a strong chunk in the skills part. Perhaps the groundwater and hydrological models spring to my mind the first when thinking about this question, because they feel pretty fundamental to know if you are a water engineer. Also, Water and People course that runs now is teaching me R and Adobe Illustrator, which I wouldn't call core tools for all water engineer, but very nice and interesting extra skills to have. I'm not sure does this count as a skill, but coming up with own ideas and solutions within a relatively short time is something I have also liked - it challenges to be resourceful and only select the necessary information. As for the identity skills, perhaps this is the most emphasized in the program which is actually pretty nice. Group work skills and experience in writing reports are both important, and exposing us to different opinions improves critical thinking and helps to clarify own values.

Sumo software, Fluidit, Modelling and Analytical skills. Team work, Time management, Better communication skills. All these are required for successful completion of any project and for working in organization.

1. Modeling in python, matlab. Laboratory skills. 2. scheduling and not stressing too much.

1) The most important skills that I have gained during my studies are IT skills, especially modeling. I've learned to model wider water networks and smaller scale water treatment processes. I've learned to use R to analyze raster data to answer research questions. Using both R and Illustrator I've learned a lot about illustrating data in a way that makes it approachable to anyone. I've also gained a lot of skills on lab work. This intuitively seems less tangible than the previous skills I've listed but when I think about it more I think it very important: I've gained important skills in governance analysis and being able to find information on, for example, legislation. 2) An important identity skill that has been built up in each course so far is the idea that there is no correct answer but what is more important is being able to justify the decision you've made. There is a lot of conflicting information available and at some point you just have to make a judgment on which choice seems the best. Other identity skills I've improved with is the ability to withstand challenges that are frustrating and difficult. I've gained more faith in my ability to eventually figure out challenges even if it takes time. I handle unknown situations better because it has been proven in all courses so far that learning curves are at first steep but things get easier over time. Another attitude that has come up in every single course is the importance of trade-offs and looking at the big picture. In this field there is rarely a decision that will lead to good outcomes in each respect. So it's important to be able to see the big picture and weigh trade-offs.

Getting know different softwares specific for this field has been rewarding and also work with already known software like R. I have learned to value good teamwork skills from both myself and others, because there have been a lot team projects. Understanding others background and how those effect on working in general and learning how other people work and maybe adopt some useful manners for myself. These all useful and can be implemented in work life, because even though environment is different most of there apply also there.

Utilizing different tools like GIS, programming and statistical methods to build hydrological models, impact assessment contributed to the key skills that helped water engineers have more cutting edge of practical skills in the working world. Teamwork, collaboration, critical thinking and holistic approaches on things helped broaden my way of thinking and be able to read and analyse things more critically, identifying the state of truth, the quality of the information and giving constructive feedback to myself and others.

1) excel, gis 2) lifetime learning

1) I enjoyed learning modelling, coding and the technical tools relevant to water field. I believe that understanding the technical side will be important in my future, whether it is within water governance or a more technical role. 2) I have improved my presentation and group work skills. These are key skills in any position.



**11. Are there some 1) skills and/or 2) identity skills you expected/wanted to learn but did not? What they are, and why you did not learn those during your studies?**

Number of respondents: 18

Responses
Not really, all the courses I attended offered the skills, I expected. And I learned plenty of identity skills I didn't even expect to learn.
More knowledge about GIS and spatial analysis. Spatial analysis is related to water and environmental engineering but it is not included in the major studies or used in the more as a tool during the courses.
Not really, for one year the amount of skills learned is already quite high.
I cannot identify any right now
I can't come up with anything that I have not learned at all. I just think that I have a lot to learn still in computational methods and scientific writing, which isn't a bad thing: It just shows that I have understood that science is multi-dimensional and we should always read critically results and conclusions.
Some times I wonder that it would be useful to learn more about modelling or design software but on the other hand we are not at school of applied science and university is supposed to give more overall skill set so I'm pretty happy!
Some tools were used for a very short time and didn't have the time to learn them as well as would have liked.
Mine would be that it would have been more fun and also I would learn more, if there were more topics/contents about contradictive/difficult. These are indeed a bit difficult to integrate into the studies. But then on the other hand I think there was a couple of times when I could had been doing a work on the more difficult topics, but I guess I was aiming to take the year easily and thus did not want to have too much of "extra work" so to speak.
Can't think of anything!
I believed that ArcGIS is a common program to use, at least it has been in civil engineering, so it would have been nice to get practice with it. Group work
Nothing really comes into my mind about this. I didn't have specific expectations about these when I came to the program. There has been a nice balance in different skills taught to us.
Not specifically
-
1) Since a big direction I wanted to take my studies in was environmental engineering I wish I would've gained more tangible skills in this field. I would've liked to learn about specific environmental analysis methods and life cycle assessments etc instead of just the theory behind them. 2) I wish there had been more contact with professional skills. It would've been nice to hear from some mentors working in different fields because even now our studies still feel quite separate from professional life.
I think the most important skill I should improve is my confidence in presenting information. Especially in presentation situations and have more courage to step outside my comfort zone. I also should improve my computational skills and especially R, because I feel I will benefit that a lot in the future.
From WAT program, I didn't have a chance to collaborate much with other disciplines and learning to work in the entity with different mentality, skill sets, and backgrounds. We didn't get to improve much on our ability to present and delivering messages skills apart from 2courses. However, this was compensated by joining other courses at Aalto.
Learn more (I am still very early phase in my master studies)
1) I wish to have learnt more about LCA, calculating emissions and modelling and technical tools related to environmental engineering. 2) I am happy with opportunities that this course has offered for improving identity skills.

**12. WAT programme has special structure, with only 15 credits of common courses i.e. 2courses. Such a structure has three main aims:1) to provide you with a comprehensive set of knowledge and skills in just one period (2courses), thus facilitating choosing your individual study path,2) to help you to learn to know your fellow students and to work as a group (during 2courses), and3) to allow you to start individual study paths already in the 2nd period (i.e. selecting those elective studies that interest you most).On the other hand, such a structure means that studying during 1st period i.e. 2courses is very intensive.Given these aims, how do you feel the 2courses concept worked? How would you change it?**

Number of respondents: 18

Responses
Considering these aims, I think 2courses concept worked almost perfectly. The only minus is that you have to be present all times. Maybe some of the sessions could be more effective. Oh, and no presentation session on Friday afternoons, at least I can't focus on presentations at that time...
The 2courses was an intensive start for the programme but for me, I think most burdening was the amount of new information in such a short time rather than the information itself. 2courses was a short time to choose your individual study path, and for me, it took more time to set my own direction for studies. Of course, I gained some insights on this already during the 2courses but the real decision happened after a couple of advanced courses. Overall, looking back to 2courses the concept worked well, and I don't see that any major changes should be made. It was good that the one week in the middle of the course was a bit less intensive giving a bit time to relax
It worked okay for me, but do to my own fault I wasn't able to fully participate. I had a week long vacation and was absent many other days here and there, which hindered my learning a bit (but was entirely my own fault). It's unfortunate that I wasn't able to participate as much, but regardless I completed the min goals nicely. I got a great overall view of all the available courses, got to know and work with my fellow students and selected (1 from each) courses that I found interesting! I wouldn't change the 2courses concept at all, I think it works perfectly fine. The amount of work was quite much since there was a new topic each week, but this we were warned about that right at the start. And anyway I believe that the more work I have to do the more I learn, which is why I'm here!
I think it worked really well. I enjoyed 2courses very much.
There was a lot of general information during the course, but I still found myself developing/learning new skills. I was not familiar with governance & legislation vocabulary and concepts. In addition, I learned more about what LCA includes, and finding key points in a research and summarizing scientific articles. I also learned new computational methods and developed those I was familiar with from before. The skills I am especially grateful for that I developed during the course were time management and prioritizing tasks when there is limited time to finish exercises, and public speaking. I think I found a lot of motivation to study during the course, and I felt secure that I was studying into the right profession. Planning my individual study path wasn't an easy task, but I think I have chosen my courses well, with the help of my mentor. I think I learned to know my fellow students quite well during 2courses, but still mostly my own small group. There wasn't maybe enough interaction with the other groups, like mixing the small groups. That would have been fun and interesting. I think overall the concept worked quite well.
Overall it works really fine! 2courses is so long time ago that I can't really remember. After 2courses I gave a good feedback and I hope it helps.
I think it is very good that after the first period all courses can be chosen as we wish. At least for me the first period was intensive and tiring, and I think fewer early mornings would have helped significantly.

## Responses

It had actually worked very well! It is true that you could not really do any e.g. part time work during the first period, but the schedule was organized very well, I didn't face any day when I had to e.g. stay up for the night so that something could be done before the deadline. Also, my sleeping habits were much healthier during the first period XD. Thus, I would not make any big changes to the concept, and I cannot really recall any individual thing that did not really work since it was such a long time ago (indicating that if there were things that required improvement, they were not big issues). But, of course, small improvements could be done based on the two-course feedbacks that were done last year.

2Courses was awesome - a bit tough during the period, but looking back I miss it. It is valuable for international students too I think because the intensive course structure is a good chance to bond with local students and make friends.

I thought the 2courses was very valuable in helping us get to know the other students and have a review of topics. The only thing that felt unsure was that sometimes the expectations of the assignments or reports were unclear due to changing lecturers/working with students with varying levels of experience.

I think 2courses was great. I like variety, so having different themes each week was interesting for me. I didn't feel the period was too intensive: it felt different with much more contact teaching than I had used to, but having interesting lectures and new nice people to get to know outweighed that. Of course some weeks were not so interesting and there were some minor imbalances, but I think it's nothing to worry about too much. I don't think I would modify the concept.

It worked very well and got well briefed about all the possible pathways.

for the parts 2 and 3 2courses worked very well. With part 1, sometimes the gained knowledge during these weeks was very scarce: maybe replacing some presentations with self-reflection exercises would have worked better.

Generally, I think 2courses worked okay. It was work-intensive but I think it was good that there was not much work outside active study hours. This could be emphasized even more because when we did get homework during 2courses it made the workload very heavy (especially since I was also working). I also think that some of the weeks did not do a very good job of representing the actual study lines and courses. I would especially get completely rid of the Aalto Ventures content because that felt construed, ineffective, and separate from the WAT program. Other weeks related very well to the courses such as Harri's modeling and the lab work. I very much liked that we were given a group and that helped create a sense of community right away.

It was a huge workload, and it contained a lot of information. Although in my opinion it was all very useful for the next courses and it give a picture about next courses. Different themes in every week brought nice variation and maybe ease to keep focus on studying the whole period. No improvements come to my mind right know because it's been a while from the 2courses. I think it fulfilled the aims pretty well.

Personally I think the 2courses was absolutely necessary for our program given that it provides a basic taste of every aspect of the study, different tracks as well as sharpen our ideas about which track we are interested in developing and studying deeper. It was also the best time to get to know other fellow students to establish good bondings, demonstrate our ability, understand other characters to collaborate for other later courses. I have a great feeling that 2courses works beautifully in many ways, however, I would like to reduce the number of reflections a little bit and get into more discussion mode more.

It was though packed but it was nice. I had one course and other stuff aswell so it was quite hard time but my group was awsome.

I liked the idea of 2courses. It was a great way to get to know fellow students. Beforehand, I was a bit nervous if I would find new friends in the master's, when I didn't know anyone in the school anymore. It would be good to change the groups during the course because it was very intensive to work with the same group especially if the dynamic didn't work. That might have put some people off from working with each other for the rest of the courses. I wish the 2courses could also have introduced to the water utility operations/urban water networks as obvious as it seems. There will be lots of courses offered towards these themes, but I didn't choose any of them because I didn't really know if they would interest me. It would also be good to make sure to balance the work load of the assignments through the course. I believe it was the second week that was quite intensive with lots of new technical tools, whereas week four was less laborious.

### 13. Our WAT portfolio and mentoring process includes the following main parts/phases:1) Writing the portfolio2) Getting feedback on your portfolio3) Meetings with your group and your mentorHow do you feel this process works as a whole? How would you improve the portfolio process so that it has more relevance for your learning and career planning?

Number of respondents: 18

## Responses

Writing and designing your own portfolio was fun and useful. I like to update it every once in a while. Meeri's feedback session was a good idea, since you got to hear opinions from other students as well. I haven't had mentor meetings yet, so I can't really comment on that one.

I am actually not that keen on creating the portfolio, although I understand the reason behind it. For me, it feels more of a compulsory task that needs to be carried alongside ongoing courses, thus resulting in stress if I struggle with the portfolio. However, I hope that when I finish my studies and my final portfolio, I see the process of what have I learned and how my perspectives may have changed. As of today, I have only finished the first version of portfolio and the development process is not yet so visible. It was nice getting feedback on the portfolio and receive some ideas on how to improve it. Still, I haven't had much time to think about how to implement the ideas for the new version. I think meetings with my groups and mentor have been the most enjoyable parts. I know that the portfolio cannot be made as an optional task. I was thinking, there could be some kind of tasks or "assignments" to set or give direction for those who are struggling to get started. Although there are some key questions provided, it might help to follow some certain instructions at the beginning to get the processing going.

I was quite lazy in starting the portfolio process, but once I did I got a clearer view of what I want to do with it. I think the portfolio is an important part of my studies as it encapsulates my learning and skills. I also aim to make the portfolio in such a way that it will be helpful in applying to jobs. I think that the process is good and the mentoring in particular has helped me a lot.

I think this process has a very nice idea behind it, but atleast in our group it did not work too well. We were really not able to have contact to our mentor until the end of the spring. That meeting was very helpful and pleasant, i got to say, but i wish i could have had it earlier. I also felt confused about the portfolio process and how extensive it was and what we were actually supposed to do and when...

It was very difficult for me to start my portfolio "from scratch". However, now that I have been working on it more, I feel I have learned many things from it, like understanding my choice of career path. The career-planning bit of course is challenging, as I don't have much working experience in my own field: I would like some kind of Career-evening, where (if possible) alumni with different career paths could come and present their type of work. This was a thing we had in my Bachelor's studies. One question especially bothering me, is that I don't know for whom I would like to work: How is it working for the government / a private company / a startup / as a researcher .... etc. I have heard about these things, but they are all very vague for me.

Portfolio process could use more examples what portfolio could look like. Otherwise it really gives me push in the back to make good plan for my elective studies!

More concrete examples of portfolios would have been nice. I don't think group meeting was that necessary, but mentor meetings were useful.

The only thing that left me thinking was that it felt that discussions and meetings were a bit just scratch on the surface (I could see that we seem to be facing some of the same problems and are puzzled by similar issues), and maybe the meetings with our groups could be extended little? Considering that the time is kind of "divided" between 4 or 5 people.

I don't think that I made the most of the portfolio process during the year, but I am planning to continue building on it over the summer to use during job interviews.

It would be helpful to speak with professionals in the industry in addition to our mentors to get feedback on our portfolios and how they and our skills will be able to help us find jobs in the future.

For me it has been a bit unclear what is expected from the portfolio. It has felt so far like an obligatory task that is just needed to do, but I wouldn't actually want to do it. While I was writing the first version, I maybe managed to clarify my thought very slightly, but I don't feel it has this far helped me really in any way. I'm not sure is it mainly for myself to clarify thought about my studies and career, or is it something that should ultimately be presentable for some employer or something. I think the portfolio should be clearly instructed, or us told more clearly that it can be whatever you want and it won't be graded. This very free form reflection can be useful, but sometimes stricter and clearer instructions are better.

Writing portfolio was good exercise for self analysis, and mentor meeting was quite effective. However it can be improve, if we had one meeting after every period.

## Responses

No stress with the outlook of the portfolio, this is actually motivating, because gives free hands but also makes the process less forced.

Although the portfolio is a lot of work, I think it is very useful. I think meetings with my mentor have also been very helpful at answering questions and helping me find a direction. It would be nice if the process was combined with career path examples or talks. It's hard to know about all the different possibilities that exist after graduating.

It is good way to reflect one's own studies and getting feedback about it gives motivation to update it. I think most of the students haven't put too much time for it because other courses and it feels more like extra task to do. Group and mentoring meetings are nice add and gives others perspective and ideas to own portfolio.

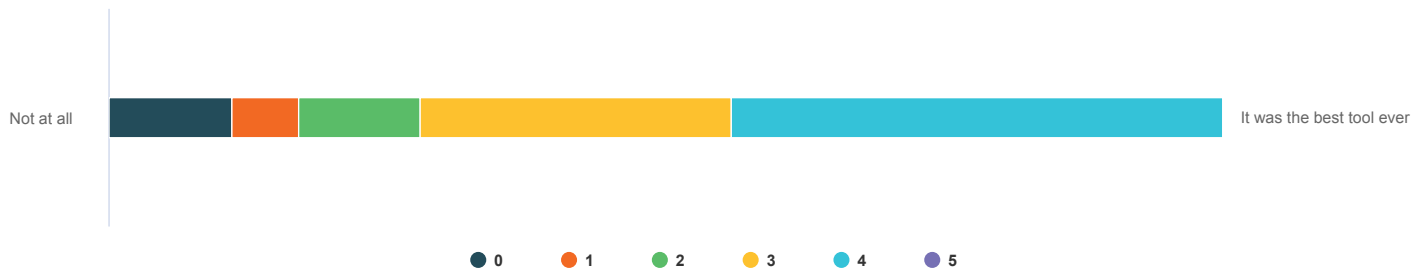
I think the process was a really good tool to guide us thinking about our own professional portfolio and our future. It forced me to think for myself in a systematic but also free way to encourage more reflection on my learning through time. The portfolio group was very supportive during our learning journeys together. I personally feel that I might have a different track compared to most of my peers so the free structure helped me relieve the tension of aiming for the expected outcomes of WAT but focus on the knowledge, skills and value which I received from WAT that helped my own expected outcomes.

It helped to think studies and professional life more now already and what I already know and want to learn more.

At first I didn't like the idea of writing a portfolio. It seemed unnecessary. However, once I got into writing it I realised that it could be very useful. I can keep adding all my experience in it and then pull the relevant knowledge and skills to my CV depending on the role that I am applying for. It's also a good way to reflect on your learning path: Where you want to go, are you on the right track, if not what should you do to correct your trajectory and get the most out of your studies? I do this naturally already without the portfolio but maybe for some others it's a good way to do it with the help of the mentor. It is also interesting to look back on your old portfolios and see how your thinking and trajectory has evolved on the way. It would have been good to have some reminders to update the portfolio, especially after 2 courses and how should this be done once 2 courses finishes. Sometimes the mentor meetings seemed to come a bit suddenly and I felt like I hadn't worked on the progress enough beforehand. I wasn't sure if I was meant to update it after each period or how it was supposed to happen. I enjoyed having one on one mentor meetings, where you can ask relevant questions and discuss your career plans. I usually prepared well for these and had a personal study plan and relevant questions prepared for my mentor to get the most out of it. I would also like the option of booking "extra" mentor meetings if possible. Sometimes it's good to discuss with someone who knows the degree structure and who can give you useful tips on what could help you get where you want.

### 14. How well did the portfolio process facilitate you to think about your learning and to select suitable courses?

Number of respondents: 18



	0	1	2	3	4	5		Total	Average	Median
Not at all	2	1	2	5	8	0	It was the best tool ever	18	2,89	3
	11,11%	5,56%	11,11%	27,78%	44,44%	0%				
Total	2	1	2	5	8	0		18	2,89	3

**15. The objective of the portfolio group was to provide you a peer support but also to gain understanding on the diverse expertise you have due to your different backgrounds. Do you think this objective was met? Why/why not?**

Number of respondents: 18

Responses
Yep, we had students from different universities and even countries, so everyone's background was different. At least in our group this objective was met.
I think it was met to a certain extent. Maybe a one more group meeting could have contribute to the objective a bit more.
It was somewhat met in the autumn period, but our Group hasn't been that active in the spring period. Hoever, I have gotten help and helped others myself when needed, so the peer support has overall worked great!
We did not really have group meetings, so i dont think i got much peer support from my gruop. Also, i think we had relatively different goals in the group, which is why i did not get as much support as for example talking with students who i know have similiar kind of aspirations. I feel like during those times we were able to see with my group, it made me gain understanding on the diverse expertise we have.
I got good ideas from my peers (and also support!), but the concept is still a little vague for me. I know the format is free, but how should a portfolio really look like, for e.g. future employer to notice me? Maybe we could have had a short session presenting possible portfolio-formats?
I learner this already on 2courses so I think this is not necessary goal to portfolio.
I think we got to know each other and their backgrouds even before starting the portfolio process. So, the portfolio group didn't provide that much peer support.
I think this is a problem of thing that I personally have, but for me to understand the diverse expertise I have due to my background, it is helpful for me to also understand how and what other people are/have (which also helps me to identify the things that only I have + what my career and possibly how are my colleagues), which is limited due to privacy issues and not really, really going deeper in group meetings.
Not so much, our portfolio group didn't stay that close during the year.
I do think it was valuable to speak with other students because it helped reflect on your personal skills after, and it was helpful to show other students that some of their skills may be useful even if they were not directly applied to the field
If portfolio group means the 2courses group, then I would say that perhaps this objective was partially met. For the 2courses, it was great to work with my group and get to know the people, but the different backgrounds were not highlighted any more than they are in a normal class discussions. For the peer support, I think for our group this worked nicely, as we have been helping each other from time to time during the courses. Maybe it's not so highlighted either because most of the WAT group is pretty close, so help can be gotten from many peers. Still, I think having one main group during 2courses is a good thing.
I dnt think so it helped out. Because we did not discussed and nor had interaction among peers.
Yes, some were helping with mathematical problems and some with philosophical thinking.
I think this worked quite well because the groups were formed so that everyone was from different backgrounds. It would be nice to have even more conversations about the different directions everyone is taking their studies in.
I think it was great to get to know how different paths and plans everyone have and how that might effect on future career. I think the aim of it was fulfilled.
I think the objectives were met in some ways, mostly in a mentally supporting way. The reason was that we were really different in our paths which not only led us to be just curious about other goals but also on their growth and path of our journeys.
Yes. We had quite nice talking sessio plus it gave peer support at this odd time.
I think the objective was met and we discussed the challenges with writing the portfolio and identifying ones strengths and weaknesses.

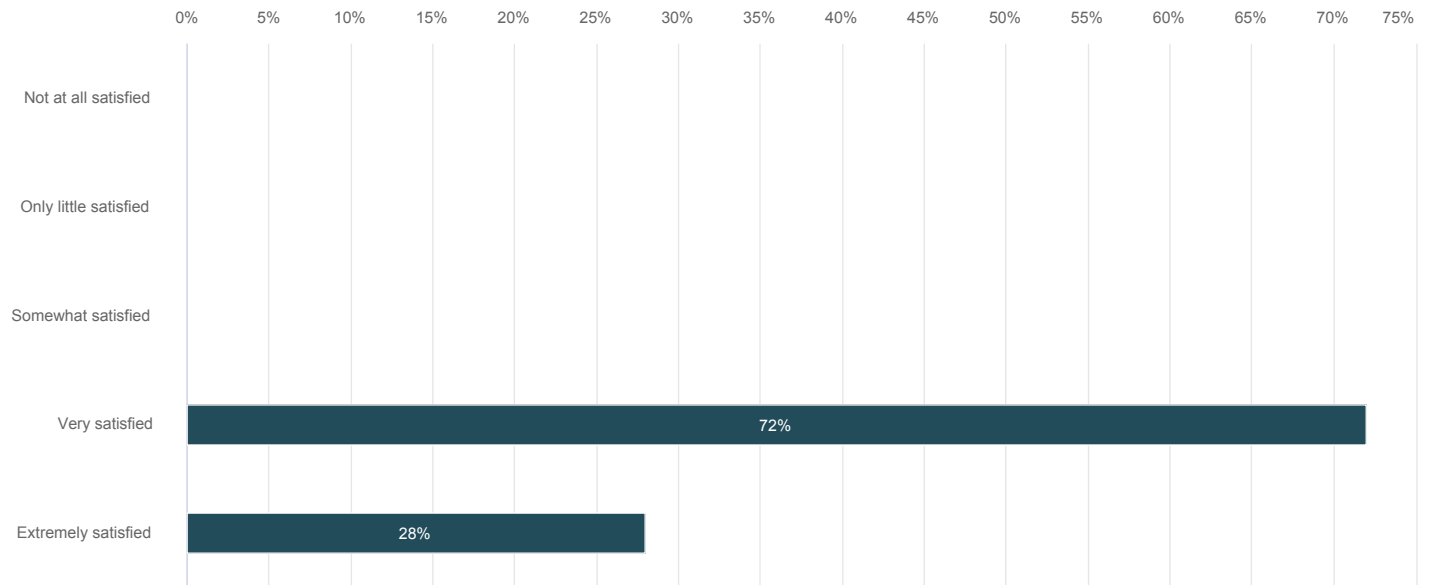
**16. Do you feel you are starting to establish your own professional profile in water and environmental engineering field? Why / why not**

Number of respondents: 18

Responses
Slowly yes. I think I still need to acquire more knowledge and skills related to water and environmental engineering and some job experience in the field. By far, I've been starting to establish my own professional profile, now I will add the water and environmental engineering part to it.
Yes, I think so. Now, I think I am more able to express what I want to do and what is my mission in the broad field
Yes I do, I know have a great basis in the water field especially and have quite a clear view of what I can and want to do in the future.
Yes, partly. I cannot say i can even really call myself a "environmental engineering student" (for obvious reasons) , but i feel like i have started to gain the professional profile in water engineering. This is due to all the knowledge and skills i was provided during the year.
Yes I definitely feel like I am, however, as I wrote above, I don't know for whom I'd like to work (government/company ... etc). It is simply because I don't have experience in different kinds of employers.
Yes I started to build it years ago as I have worked on the sector. I feel like university really takes me to the next level on my careers as it should be.
It is starting to form, but is still not exactly certain.
Yes I am, combining my hard skills/knowledge, my personality and my preferences and interests.
Yes I do, but I feel a little lost trying to find relevant employment as a foreigner in Finland. It would be great to have a little more support for internationals trying to find work here.
Yes, I know the topics that interest me the most and my skills and strength feel clearer to me now
Yes, slowly. I know quite well what interests me, the problem is just that there are so many different things I like, also from other fields. I have still gotten thoughts about my direction from the courses and elsewhere.
Yes, because i think the courses i have selected have provided basic knowledge enough to establish or either decide about your professional profile.
yes, "modules" (i.e. water resources) help in understanding the relations between courses, which helps in describing the studies to other people.
I don't feel like I really am. I am struggling with the fact that studying environmental engineering is very difficult in Aalto. Although real-life examples have been given in all courses it still feels hard to imagine myself in a certain career path. I think I would benefit from more diverse examples of career paths (not just consulting).
Maybe not yet, even though I have clearer plan now than in the beginning of WAT studies. I feel like I still need more knowledge and next year is important from that aspect, including elective studies and perhaps thesis work.
I have mixed feelings about my own profile in water and environmental field, but the major feelings are more on the positive side. Positive as I did gain the necessary knowledge of the field to achieve my goals. However, I felt that the degree was limit a bit in an international working context, and as a foreigner, I don't have strong feelings that I could get fully into this field in Finland.
Yes in a way. It has been quite eye opening year.
Definitely! And what I love about this degree is that even though we all study the same major our knowledge will be quite different to each other depending on the focus that we have chosen in our studies.

### 17. How satisfied you are with the WAT Master's Programme as a whole?

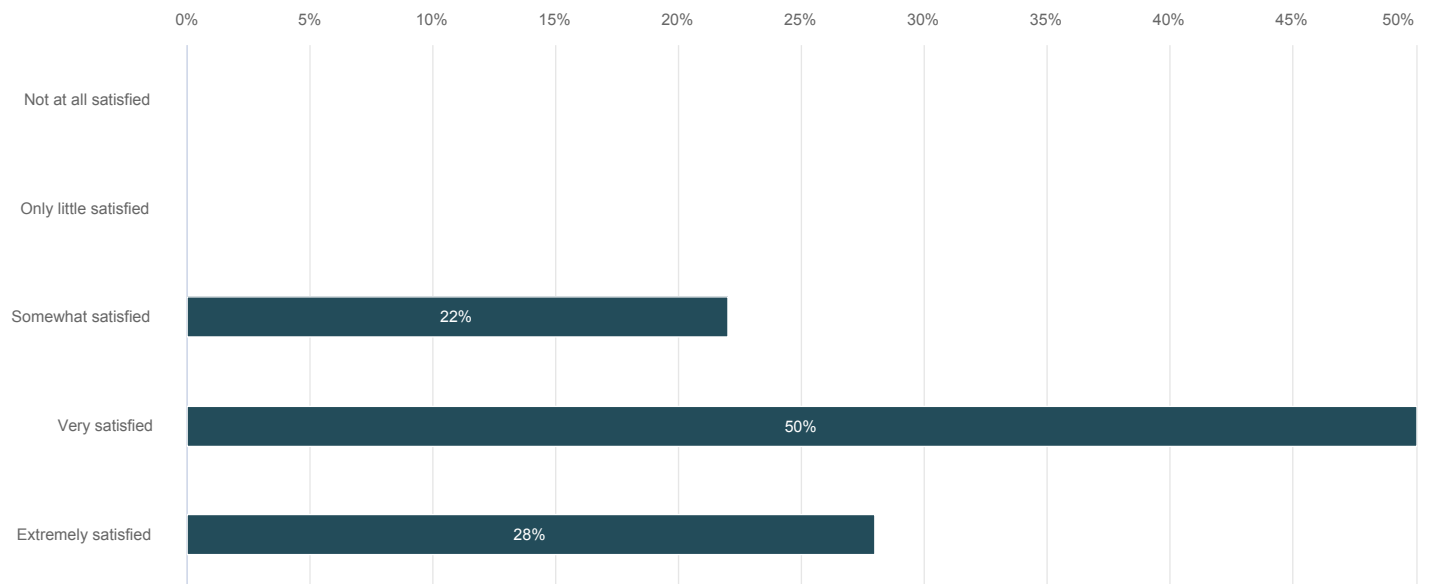
Number of respondents: 18



	n	Percent
Not at all satisfied	0	0%
Only little satisfied	0	0%
Somewhat satisfied	0	0%
Very satisfied	13	72,22%
Extremely satisfied	5	27,78%

### 18. How satisfied you are with the teachers and teaching methods as a whole?

Number of respondents: 18



	n	Percent
Not at all satisfied	0	0%
Only little satisfied	0	0%
Somewhat satisfied	4	22,22%
Very satisfied	9	50%
Extremely satisfied	5	27,78%

### 19. Please, elaborate on your previous responses shortly:

Number of respondents: 17

Responses
I feel like last Autumn I really entered into a new program, not just continued my studies like normal in the same university like many other friends of mine did. The staff looks after us and I think the learning environment is safe.
The programme lets students select their own study paths and focus on the topics they are interested in, which gives motivation for students. The teachers have been really helpful in the courses and flexible with assignment deadlines etc. Although, I know why the programme has so much group work and therefore contact teaching, I sometimes feel group work and especially peer-grading do not reflect the actual skills and knowledge a student may have. Some may not take the peer-reviewing as seriously as others and just give some numbers without reflecting them through.
I have learned so much during my first year and I feel like the WAT Program has been great! I would have answered extremely satisfied, but my only drawback has been that in some occasions I have Felt overwhelmed with the amount of work needed to be done. However, the teachers and other students have been extremely great at teaching new things and helping with problems I have had.
17. I am extremely satisfied with the masters programme, just a bit sad that the environmental side is missing. 18. I have liked many of the teaching methods, just sometimes feeling very done with all the interactivensess.
I have sincerely enjoyed this year so much! I really like my fellow students and the teachers are very friendly and supportive. I have learned a lot, gained more confidence and motivation for my field of study. The teaching methods have mostly being very nice, but there's one thing that sometimes bothers me: With the sessions being 3 - 3.5 hours long, it is not, according to me, effective / 'learning-friendly' to have lectures this long, where students only listen. At least I can't focus that long, even though the subject would be interesting. And it doesn't help to have a 5-min break now and then, I think what is required is more interaction and discussion, as many teachers of course have done. Just to be clear, this has not occurred at every course / all the time, but sometimes. Overall, thank you for such a good learning experience!
I have really enjoyed studying in the WAT masters. Most of the professors/teachers have really good pedagogic skills which is not always the case in Aalto. Also I got feeling that WAT department does high quality research and has really professional stuff.
I'd like to learn and get as much information of our field as possible and I don't think the huge amount of group work supports that. Some of that time could be used e.g. for more informative lectures.
I am not a person who would often give 0 marks or full marks, so "very satisfied" means that I am actually very happy with what's going on :)
The masters has been a great experience and I do think that I have grown professionally during my time at Aalto. The teachers and people in the WAT group have been great - I have personally found the teaching methods refreshing and will definitely inspiration from them if I am ever teaching a group.
I have found all of the courses and lectures very interesting. Especially hearing about the research of the professors and the work of the guest lecturers. I also really enjoyed that course work included case studies
I think many courses have been super nice. Also I like the teachings methods a lot mostly. Perhaps there has been some courses that have achieved the same greatness, but none of the courses have been bad.
WAT course structure has diversified major courses, and planned very well. Teaching method is quite good because of interactive sessions not only focusing on knowledge but also develop skills which are needed for career growth.
Courses are diverse and interesting. Almost every course includes group work, which increases stress, because of the problems with time schedules etc. More exams!
The WAT program has been a huge step-up from the Bachelor's degree offered at Aalto! Group sizes are small, the pedagogical method of opting for projects instead of exams has been really good, the relatively even workloads throughout the courses (instead of at the end) has been great, lecturers have been very motivated, guest lecturers have been interesting, and lecturers have been very helpful in giving individual help. I am very impressed with the quality of teaching in WAT! My main concern is the fact that there is no professor of environmental engineering which has diverted the course I was planning on taking in my studies.
I think the research-based teaching is very interesting and relevant which gives general knowledge about topic and deep down relevant researches on the matter. It seems very practical approach to do, the staff had been very helpful and supportive all the time.
Courses are quite packed with stuff to do so it gets quite hard. Sometimes credits and time used doesn't really work together.
The WAT Master's Programme has exceeded my expectations. I made a big decision to move countries for this and I couldn't be happier with my decision. The WAT degree has equipped me with expertise in the water field and has had a major impact on my career dreams/plans. I couldn't believe how much relevant experience and knowledge I would get through this degree.

**20. Online teaching & learning in periods IV and V due to the coronavirus pandemic: How did you experience studying online in WAT programme? What worked well, and what should have been done differently? What elements of online teaching could be maintained in WAT courses also in the future?**

Number of respondents: 18

Responses
Can't comment, since I didn't study.
The rapid shift to online teaching worked well and I found the online session working well for me. In the beginning, there were some adjustments and practices that required learning, because Zoom and Teams were new platforms for some but I feel everyone got the hang of it quite quickly. I am not sure how it would work in practice (but this is actually already practised in many universities, such as HY and UEF) but combining online and contact lectures could be a major improvement. This would mean that contact lectures would be held at the same style as before but they would also be cast in zoom at the same time for students who may not be able to attend the lecture in person.
I feel that the teaching has been done as good as can during this pandemic. The teachers have done a great job with the courses even though it has been really hard to work out problems remotely. For example I have never used R-Program before and have had a lot of problems with it and feel like it would be easier to work out problems on site. However, the teachers have been able to help remotely anyway even though it takes a lot more time. I think that doing exercises should be done at school, but some lectures could certainly be arranged remotely after the pandemic. Maybe there's a way to stream some lectures so that those who cannot participate can still watch them remotely.
I think the fifth period has been great, and for example Matti Kummus has done an incredible job with his course. The fourth period was understandably more chaotic, and I felt like even though they did good job considering the circumstances, that the workload ended up being way too big when we were not able to physically meet. I think some lectures could be online in the future.
Some online-lectures were very long and difficult to focus on, although the theme was interesting. I especially liked the online sessions where we had discussions in small groups, it was nice to interact with others. Zoom worked very well, and I recommend it for future use, e.g. for online lectures.
It worked like a charm for me. Teachers who used breakout rooms and other innovative solutions were the best. Still sometimes days got bit heavy as I started in Zoom at 9, had 30min break at 12 and finished at 16:30 and it was non-stop working. So workload is something to consider differently in these situations.
Online studying worked as well as regular studying. Depending on a group, group discussions were slightly more difficult. In my opinion, I don't see why this could not be the new normal.
Technically worked well and it felt that there was even more "freedom" (atmosphere). But it is true that it is more difficult, at least for me, to study, understand contents, ask questions and get emotional feedback from other people with distant teaching, and this made the overall studying process more stressful and time-consuming.

## Responses

Although I think that the teachers did an admirable job, online teaching does not come close to the experience in the physical classroom. At a minimum I think that online lectures should be recorded so that people can view them later. The microsoft teams style support in Matti's course was very useful and could be maintained or expanded to other courses into the future.

Generally, I think online learning worked well and the best it could in the circumstances. Many of the working sessions were held in meetings where anyone with questions would be moved to a private breakroom. With the way that Zoom works, it seemed difficult for the lecturers to be able to keep track of who was asking for help and may have slowed down the process. I know we do get individual help in class, but it may have been helpful to take questions before/during lecture and do some explanations in the whole group

I think the 2 WAT course I have taken during this time have worked well. I would still prefer contact teaching, but especially in the Water and People course things have worked out great and I appreciate the efforts of the course personnel a lot. I don't honestly know what could have been done better. As I would like to return still back to normal and there has been a good share of online-resources in the courses already before, I can't really name anything to maintain from this current setting.

Online teaching went well in the courses which does not include any software or modelling exercises. Exercise demonstration and getting help on problem was bit difficult.

Lectures, exams, meetings worked well. I felt that help was available if needed. Group works and introductions during lectures (demanding every student to open the mike and speak) was refreshing and nice, BUT almost every time that messed up my internet connection and I had to end participating in the lecture earlier than planned.

Course staff have been excellent at the transition to remote teaching! There have been very little decreases in quality of teaching. I am very grateful that the teaching staff has put so much effort into making remote learning. work. I have to especially mention that Matti Kummu's Zoom lectures for the Water and People course have worked great online. Some things that I think could be kept for the future are the possibility of having recordings of different demos that lecturers give during lectures. Also, the possibility of having support sessions online could also work well in the future. The VDI connection to Aalto computers has been an extremely helpful resource so I think this possibility should be talked about in the future as well to students (I didn't know this existed before corona). Because of corona finding jobs and thesis positions has been difficult so more support could be given on this.

Online teaching worked surprisingly well, and it was really nice that teachers were adjusting deadlines due to situation. Remote lectures and support sessions in remote have been successful and staff has been very helpful out of the sessions too. It would be nice if some lectures were remote and recorded in the future, because our programme has a lot of interesting lectures and sometimes it is not possible to come to wherever they are arranged. Especially when second year starts, and some might have courses from other universities schedules can be at the same time.

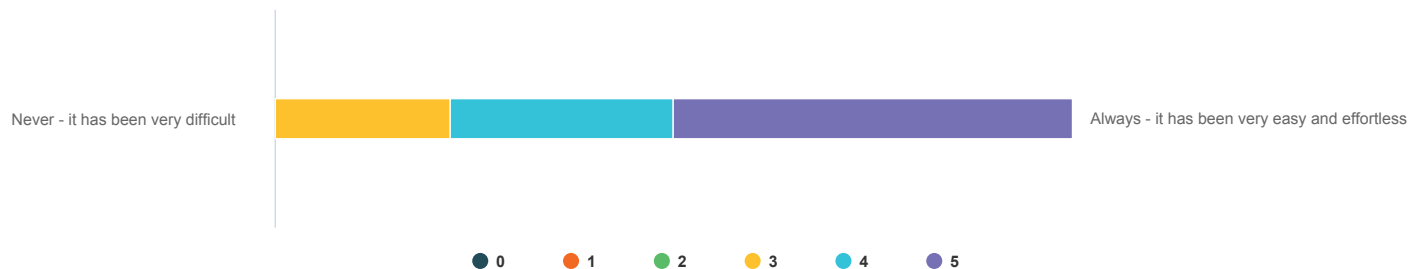
The transition to online learning was really different from the way WAT program was initially designed. It was challenging but I think the transition was really smooth and everyone was very innovative and supportive for each other in similar spirit of WAT course. However, I think many of online lecture could have been more improved if the lecture was already recorded, during real-time lecture, we would have more time to discuss with other peers on the matters and ask questions from lecturers. Many of lectures of WAT course doesn't really require physical attendance, the assignment support system is better done online as many people couldn't come to classroom physically at the time out of normal schedule.

I didn't do any WAT courses now in the spring

It was a bit lonely to be working from home on individual assignments. Usually, we would stay around the campus and have peer support from each other while working on assignments. The peer support element was now missing and made me more dependent on the course instructors and assistants than before. Some courses worked well online such as Water&People because on that course you get to be quite creative with your approach so it isn't really something you discuss that much with your peers anyway.

### 21. During the whole academic year, have you been able to receive help and support from WAT staff members?

Number of respondents: 18



	0	1	2	3	4	5		Total	Average	Median
Never - it has been very difficult	0	0	0	4	5	9	Always - it has been very easy and effortless	18	4,28	4,5
	0%	0%	0%	22,22%	27,78%	50%				
Total	0	0	0	4	5	9		18	4,28	4,5



## 22. What do you think should be changed in the WAT Master's Programme? Why?

Number of respondents: 18

Responses
More environmental engineering courses... I was not pleased to hear I entered a program called water and ENVIRONMENTAL engineering, only to learn that the Professor of Environmental engineering had quit.
Sometimes, the workload of the course feels more than the 5 credits. Of course, this can be due to the fact the field is so broad and different perspectives and contexts have to be taken into account, which means more processing and brainwork with the assignments and projects. Setting clear objectives and providing examples of what is adequate could lessen the stress some may experience.
I personally would like the environmental courses, but this year it was of course not possible to arrange them, since there wasn't a professor. It has been great to learn about all aspects of water, but some additional courses of other topics are important too, so I hope that you will find a new professor of that field to arrange those courses.
I think the course workload did not often correspond with the credits, so maybe more credits from one course or less tasks per one course
The long sessions (3h) are good, as long as there is enough interactive learning. Too long lectures are difficult to focus on, without a little discussion / tasks every now and then.
Teachers who have better pedagogic skills could share them to others on WAT department to get contact teaching at the same level on every course.
Not as many group works in one period and not as many obligatory lectures.
I was thinking for a long time, but could not really figure anything to say. But, I really liked team works and the integrated community, and I was feeling that the WAT community could be even more integrated?
Maybe promote some integration between courses? Just an idea, but it could be interesting to have a few overarching themes/projects running in the study streams (i.e. water treatment, water resources etc.)
Other opportunities to meet industry professionals and get personal feedback on our CVs/experience would be helpful. (I think this may have happened at the event in February, but I could not attend as I was in SGT)
I think revising the portfolio process to be less annoying would be good. Also adding more environmental engineering, if possible. I would have also personally really liked something more about earth sciences, atmosphere sciences and climate change or biodiversity models. I understand that these are topics the personnel might not be experts in, but I'm quite sure I'm not the only one of WAT students wanting to know more about these topics.
Include Environmental Risk, also one subject related to Air, Land pollution
Courses include many small tasks, some of them could be combined (to larger reports etc), to reduce stress of scheduling.
I think the program should have an environmental engineering professor since that is an essential part of the program. There should also be more courses on environmental engineering. I think more help should be given with finding a thesis position because no proper guidance has been given on that.
Some lectures could be nice to have recorded or remote in the future at least.
It would be better if we can access more environmental quality courses soon. More online support sessions would be better for many students in general.
I wish there was more environmental engineering courses and something about stormwater
I think other than the minor changes that I have already mentioned in my previous responses, the WAT programme works really well, so don't change too much! I enjoyed getting real-life working experience through the sustainable global technologies course. Once you have experience from a real situation it is easier to reflect that through the conceptual knowledge that you learn on the courses. So if it is possible incorporating this kind of real experience in other study tracks could be helpful too.

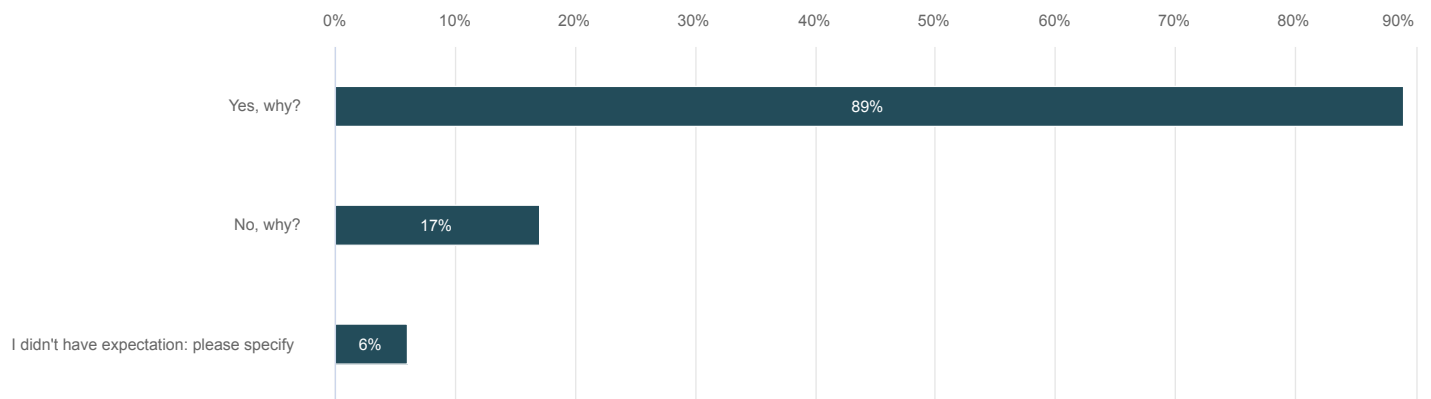
**23. What are the things we should maintain in the programme, and why? In other words, what is already working well in the programme?**

Number of respondents: 18

Responses
The feeling of togetherness. Keep the intensive start although we complain :)
The scheduling of the courses is clear and there are no overlaps with the courses. The course grades are based on work done throughout the course and there are no exams (at least in the courses I have taken). I find this very motivating and supporting the learning process.
I have zero complaints about the programme. I have had personal problems with motivation and adjusting to a new school and its systems, but as said they aren't due to the WAT Program.
2Courses was great. The whole mentor idea was great. Many of the courses were very well done.
The courses are very good, and the whole mentoring and portfolio -concept is really worth keeping. I have felt like there has always been academic support, when I have had problems with my studies/future plans. And all the group work has payed off, it has been a great experience.
Active contact sessions and group working is so good way to learn! Also weeks with clear structure e.g. on monday morning there is introduction to the weeks theme and on friday there is good intensive wrap-up session and then there is no work for weekend.
Only having 15 credit of common courses.
Two-courses! It could be improved and changed according to need and feedback, but don't abandon it. In addition, people are very nice and it is easy to receive help or speak to people.
The numbers of guest lectures in some courses were great and it is always more engaging to work with 'real projects'.
The group work is a good feature of the program, and it has felt very easy to get to know our lecturers and go to them for help or with questions
I think most of the things work well. I think 2courses is good and the timeslots for the courses work well.
Course outline and structure
Support from students and teachers/staff. Good balance between math and societal thinking.
One of the best things is the general idea of having projects instead of exams and an even workload instead of a huge workload at the end. I also like the small group sizes and the individual help that is given. I like having a staff mentor and guest lecturers have been great.
Group works are really nice and educational experience, also nice that in fifth period it is considered that some might have work and there is no group works.
2courses was a very good course that achieved and exceeded the goals pretty well. More workshops on relevant skillset and networking should be organized often.
Hard to say when I have done just two WAT courses after 2courses
I hope that students can remain creative with choosing courses in the future, to create unique degree structures and many different kinds of experts from this degree.

**24. Has the master's programme met your expectations (you can choose several options)?**

Number of respondents: 18 , selected answers: 20



	n	Percent
Yes, why?	16	88,89%
No, why?	3	16,67%
I didn't have expectation: please specify	1	5,56%

**Answers given into free text field**

Option names	Text
No, why?	Lacking environmental engineering course(s)
No, why?	There has been less environmental engineering than I expected.
No, why?	Otherwise I would answer yes but I expected to have an environmental engineering professor and courses on the topic.
I didn't have expectation: please specify	Nice that there was this option, but I can't figure out why I didn't really have any concrete expectations

Option names	Text
Yes, why?	I applied to this program since the university has a good reputation and the program seemed interesting. These expectations have surely come true.
Yes, why?	I expected to work hard and learn a lot, and i think that has definitely happened
Yes, why?	I would say yes and a little bit no: What I expected were the computational methods and scientific writing, in depth, and these expectations were met. However, there was more to it than I had imagined, I was suprised of how much support we get from teachers and mentors, and also how much this programme motivated me.
Yes, why?	this was more than I expected because bachelor degree was so bad in ENG
Yes, why?	As stated above.
Yes, why?	I was drawn to the program at Aalto for my master's because it includes an interdisciplinary approach, which I think is invaluable for engineers to complete future project work that is successful and sustainable. The WAT program has held up the expectations I had and I am very happy with the choice that I made
Yes, why?	It has been an interesting and diverse program.
Yes, why?	It exceeded my expectation with quality and structure of the teaching.
Yes, why?	I finally get to learn what I have been waiting
Yes, why?	Absolutely! I got the experiences and learnings through this degree, that I didn't even dare to dream of.

## 25. Any other comments or greetings?

Number of respondents: 12

Responses
Have a lovely summer!
Thank you for the year and all the best!
A huge thank you to all teachers, you have been great at teaching, helpful with problems and selected interesting and important subjects to the courses. Also, you arranged the courses really well despite the pandemic, which must be hard!
Geetings to all the amazing teachers in WAT! Especially Teemu Kokkonen and Matti Kummu. You can tell they have passion for their work but also teaching, and they really care about the students. Also, coming to study this program here in Aalto has definitely been one of the nest decisions in my life!
Thank you for this year, it has been great! It was nice to be able to have such a 'tailor-made' study path, still forming a good entity. Thank you for all the support, the interesting discussions and lectures. I would totally recommend this program for anyone interested in water resources.
Have a nice summer ya all!
It had really worked fine, thanks, and also thanks for the email reminded to do the survey!
I'd like to thank all the teaching and organising staff for their efforts, as someone who has experienced 'regular' lectures of 200+ students and standard teaching paradigms at my previous university, it was refreshing to experience a different approach and I think it is fair to say that it works! I hope to work closely with the Aalto WAT group into the future :)
Thank you for everything this year! I am very happy with being able to have spent my first year at Aalto and will miss the program when I move to DTU next year, but I hope I can still stay connected.
Thank you for your hard work.
Thanks for the year!
Stay innovative with the programme and keep improving it through the feedback. WAT programme is excellent! Thank you!