

the earth magazine

COOPERATION

powered by SSC // summer 21 // volume 0

editorial

Join us on a journey from Spring 2019 to June 2021 – what has SSC been up to? How did we even come to exist in our current form? How do we embed in the Zurich landscape of students for sustainability? This is the tale that awaits you in **welcome to SSC**.

‘Why launch this magazine now?’, you might ask. Well, this year’s spring semester was one of special efforts as you will read in **growing departmental roots**. We are a central student commission, but the topics we deal with concern everyone. And not just students, but professors, administration and other staff at ETH. This is why we have spent FS21 reaching out and trying to find solutions altogether.

Yet in order to imagine the future, you have to understand the framework you live in right now. That’s why we head **back to the future** in the final section of this magazine and pay homage to Christine Bratrach together with her team at ETH Sustainability and beyond, who laid the foundation for today’s holistic view on sustainability from 2008 onwards.

But now we live in 2021. Based on our recent observations and efforts, we believe another paradigm shift is necessary now. Please take some time to appreciate the motivations and struggles portrayed in these pages, read all the way and thus understand the message waiting on the final page.

You are a student? A professor? Scientific staff or administration? Part of the Executive Board? There are stories waiting for all, dedicated to the message we wish to send:

Cooperation resulting in action
is what we need.

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The Board
in the name of
SSC - Student Sustainability Commission

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welcome to SSC

Anna, a current board member of SSC in 2021, reflects on two years of commission life. After setting initial goals it was unclear how the commission would evolve...

Spring 2019. Bewildered by chalk-white monsters of Analysis II, I step out into the sunlit buzz of Rämistrasse. A tupperware box of yesterday's dinner sits coldly in my hand but bumping into Nico keeps me from taking the most direct path to a microwave. "Hey Anna! I'm heading over to Rämi59 for lunch. The SSC Dev Team is being called back to life and the first meeting is over there in 10 minutes". A crowded meal, cross-legged round of introductions and a series of "You're new here? Ah, me too!" later, five students find themselves part of a "Student Sustainability Commission" and its concoction of half-baked ideas. Back to Analysis.

December 2019. "Hey Nico! So, what about the organic cotton for the Basisprüfungshoodies? Have you heard back from ETH Store yet?" – "Uh, kind of. They've already ordered this year's lot though, so I'm not sure we can still change anything there tbh"; "What about that new girl that showed up to our last Dev meeting? Is she interested in helping out with the Ecosia project?" – "Well, I haven't seen her since..."; Someone starts passing heiße Maroni around our little circle gathered on the green floor of CHN, our conversation gladly drifts. But the elephant in the room won't go away. "Are we really changing anything? Does anyone even know the commission exists? And we ourselves don't even really know what the SSC Events Team is doing". A glint of defiance flickers in our eyes.

February 2020. It's a Saturday, it's 9:00 am and twelve faces are looking at each other with anticipation in E42 of the HG building. It's still Saturday, it's 12:00 am and we've identified our three core problems: out-of-date internal structure, ineffective internal and external communication, little social cohesion. We're happy to slot in a communally cooked lunch to start addressing the latter. By 18:00 we have a new board with 5 Coordinators leading 5 Teams: Events, Development, Communication, Coordination and Finance. A new logo shall strengthen our identity as a people-driven, non-bureaucratic commission and be promoted on upgraded social media.

September 2020. First day of HS20. Our fresh website is live, Ersti-bags are stashed with SSC flyers printed on Tirolean apple paper, advertising our very first konsumGLOBAL tour through Zurich. A few weeks later, the second Corona wave hits. Surprisingly, new members do join the Communication team and take our 'Sustainable Quarantine tips' on Instagram into a second round. The Events Team keeps going strong with online formats and organizes movie screenings to support the focus topics at Development: food, mobility and the rising #DivestETH campaign.

July 2021. You are holding a quadratic piece of paper before your eyes. Turn this page to read the motivation behind each event in FS21. Hear the voices behind our food, mobility and divestment teams; listen to how we are not alone but embedded in the larger landscape of students for sustainability in Zurich and beyond. This is a snapshot of our consolidated community: Welcome to SSC.

Development Team

Divestment

In the effort towards a more sustainable ETH, finances shouldn't be overlooked. By not paying attention to where exactly the money goes, ETH potentially supports climate-damaging activities and even makes a profit off of it. In this sense, ETH's financial behaviour contradicts the research and teaching conducted at our institution. Thus, we demand a transparent and sustainable investment strategy from ETH, working towards divesting its assets from fossil fuels altogether.

Not only from an ecological and moral point of view is divestment from fossil fuels relevant, but it also makes sense financially: By excluding fossil fuel companies from the portfolio, the physical and transitional risks associated with investing in companies without sustainable business model decrease.

To reach our goals, we have organised several events, for example during the NHW 2021. On the one hand, we aim to raise awareness and visibility for this issue among students and staff at ETH. On the other hand, we are trying to convince the concerned entities at ETH Domain to divest. Currently, we are organizing knowledge transfers between sustainable finance experts and ETH officials to facilitate this process. We are excited to continue pushing towards an ETH with impact investments in future-oriented fields instead of fossil fuel financing.

To find out more about our campaign, please visit:



The #DivestETH Team

Mobility

Daily commuting and travels beyond Zurich cause over 50% of the greenhouse gas emissions at ETH. Therefore, rethinking our habits related to mobility will hugely contribute to creating a more sustainable campus. However, it is essential that sustainable travel measures do not compromise the social qualities of our academic environment. ETH needs to stay a place of international exchanges between students, researchers, and professionals.

Despite the few hours we spend onboard, air travel is currently by far the main factor in emissions. That's why flight reduction has been the centre of attention in our latest projects. Firstly, we wrote an article in which we analysed sustainable solutions that do allow for building international networks and maintaining personal relationships. It showed that jumping on a night train, working during a rail journey, or relying on videoconferencing can be even more efficient than a travel above the clouds. In the same project, we presented practical insights gained from interviews with academics who gave up on flying in one situation or had done so for years. We aim to promote such messages together with tools such as travel-emission-calculators.

While it is true that ETH is already implementing measures to reduce flights, we believe that only bottom-up initiative can make a significant difference in our travel behavior. With this belief, we are starting the ETH Sustainable Travel Challenge this summer. Through this challenge, we encourage ETH members to choose a sustainable travel solution to go on holidays, and to share their experiences on social media – with the chance of winning some sustainable prizes!

Théophile Ray, Hasan Akay, Luna Bloin-Wibe and Damien Geissbuhler

Food

Communication Team

Food, and all its related topics, bears huge potential when it comes to sustainability. From packaging to food waste, ETH still has much room for improvement in terms of consumption. Our motivation as the SSC food team stems from a desire to facilitate a conscious lifestyle, considering our community needs. By working on introducing eco-friendly products and systems, we want to make sure that every person willing to consume responsibly has access to adequate resources. Going one step further, we also aim to raise awareness and encourage ETH members to rethink their habits and change their behavior.

This vision might be very utopic and abstract, but what are we doing concretely? Our various projects address different questions about food. For instance, what is considered a good mensa? By creating labels based on criteria such as choice of products, offer of vegetarian and vegan meals, or management of food waste, we are working towards a ranking of the mensas and restaurants at ETH, together with ETH Sustainability. The unnecessary sale of water in plastic bottles is another of our main concerns - bottled water in Switzerland? A country with fresh tap water? Absurd. A last example is establishing a regular food market on the Hönggerberg campus. This will be an opportunity for everyone to get fresh and seasonal products directly from local producers instead of having to buy expensive, exotic goods in the only grocery shop present on the campus. Overall, we are convinced that changing mindsets, educating, and enabling responsible behaviors are key to the future of consumption.

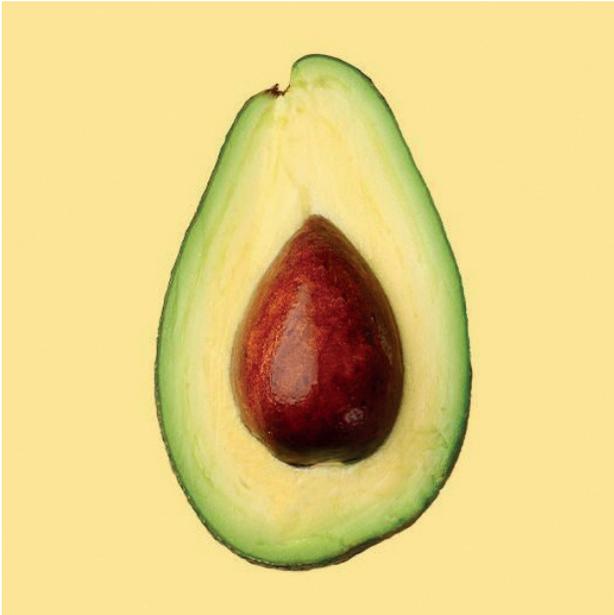
Charlotte Meyer, Rike Teuber, Luisa Mühler Ferreira, Damien Geissbuhler, Anne-Siri Rietmann, Charlotte Brombach, Anne Michel, Fiona Schneider, Leoni Rast

Do you really exist if nobody knows about your existence? The interaction with our surroundings validates our existence, our reality. We, the Communication Team, make sure SSC exists, we link SSC with the world and the world with SSC. We manage the online presence of SSC, try to spread our values and support the Events and Development team by promoting their hard work, hopefully sparking people's interest for sustainability. The platforms we are currently using are: Facebook and Point (the new community platform of ETH) and Instagram, where you can find informative posts on how to integrate sustainable habits into your daily life. We also have our own online newsletter and we have a beautiful website with many interesting resources to discover, such as the Alternative Bank Switzerland or simply books and movies about sustainability. We encourage new members to join and help them find their place inside SSC.

Apart from managing the interface between the outside world and SSC, we also try to improve internal communication by ensuring good information flow on Confluence and Slack, establishing an overview about projects and managing the accounts of our members. We have many creative minds in the Communication Team, who are eager to design and come up with new ideas to educate, inspire and motivate people.

Ümmi Armagan, Lena Caminada, Sara Cino, Julie, Finn Graf

Events Team



Better Consumer Quiz

For the second time, we collaborated with two PhD students from the Chair of Ecological Systems Design to organize an online quiz on sustainable consumption. Tricky questions in the area of clothing, food and energy created some eye-opening moments for the participating teams. From my personal experience, I believe people often want to know what they can do and change in their daily lives to have a smaller environmental footprint. The trivia quiz was one way to raise awareness on such key issues in a fun way.

Jamila Gysin



Having, Being and The Sane Society

What are our needs, as human beings, and which is the societal model that best helps meeting such needs? Erich Fromm, psychologist of the 20th century, shared his ideas in his wonderful books. We fully experience ourselves through our abilities to reason, love and act productively; in this way, our actions are not aimed at gaining anything, but at sharing who we are and who we can be. Consequently, a society can unveil our potential by helping us developing our skills in an inter- dependent fashion. In this way, joy arises from what we do and who we are, and not from what we have.

The powerful message of Erich Fromm motivated me to organise two interactive events, where the thoughts of the mentioned psychologist were presented and used as fuel for discussions. I personally believe that, to encourage a societal change towards sustainability and compassion, we first need to make love, reason and joy blossom in us through cultivating a non-judgmental attitude and genuine curiosity.

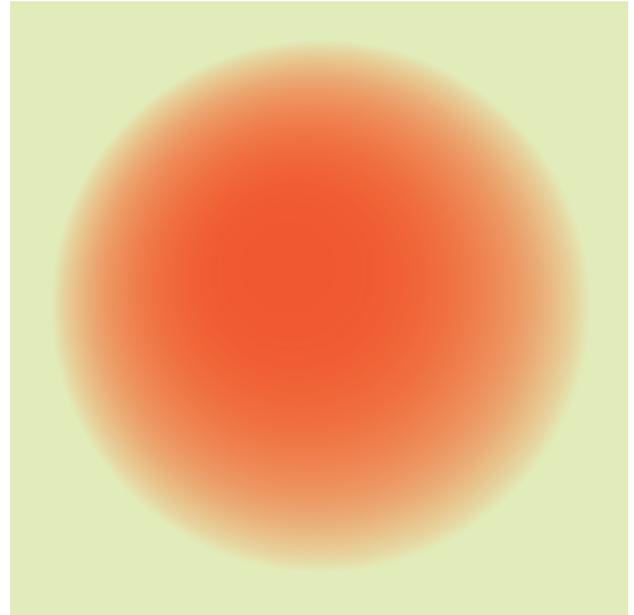
Mattia Uselli

Sustainable Business

Is being both profitable and sustainable a contradiction? Or does a company's strategy need sustainability at its very core to have a competitive advantage in the long run? Such essential questions were addressed in a panel discussion between three experts - Josephine Herzig, Programme Director for B Lab Switzerland and Swiss Triple Impact; Johannes Meuer, senior researcher and lecturer in the course Strategies for Sustainable Business at ETH, and Leonard Creutzburg, PhD student at D-USYS at ETH and member of Post-Growth Zurich.

My motivation: Nowadays, sustainability is a buzzword. More and more businesses claim to be sustainable and have committed to becoming carbon neutral. But how can we, as consumers, tell whether these shifts towards more sustainable practices are sincere, or whether green-washing is involved? And is it enough to offset emissions? I wanted to find out what experts from different backgrounds think; hear not just theory but their personal experiences and sometimes contradictory opinions... In the path towards a more sustainable world, there is sometimes no "right" answer. In this sense, I was very happy about the open and relaxed spirit!"

Nela Foukalova





Animal Protection in Switzerland: History and Ethical Underpinnings

Nico Müller, President of Animal Rights Switzerland, gave an introduction to animal protection in Switzerland. The audience was presented with the (horrifying) numbers and facts about animals that suffer for us humans, in Switzerland, year by year. He then explained the historical context, ranging from 19th century to present-day animal rights activism. Being a doctoral candidate in philosophy (Uni Basel), he also familiarized the audience with the ethical foundations of the animal rights movement.

My personal view: As a math student, I can't but look at problems that are large in scale, where the facts are clear. I'm not merely interested in my specific field, but instead I think that whenever there is violence and injustice, it is everyone's duty to address it. And, as Nico Müller rightly said when talking about the 76 million animals that are annually killed in Switzerland, we are faced with "unspeakable violence" in the case of (failed) animal protection. I was somewhat relieved to see many attendants sharing this view in an extensive Q&A at the end. We agreed there is much to do to erase our ignorance (and thus erase such violence).

Adrian Müller

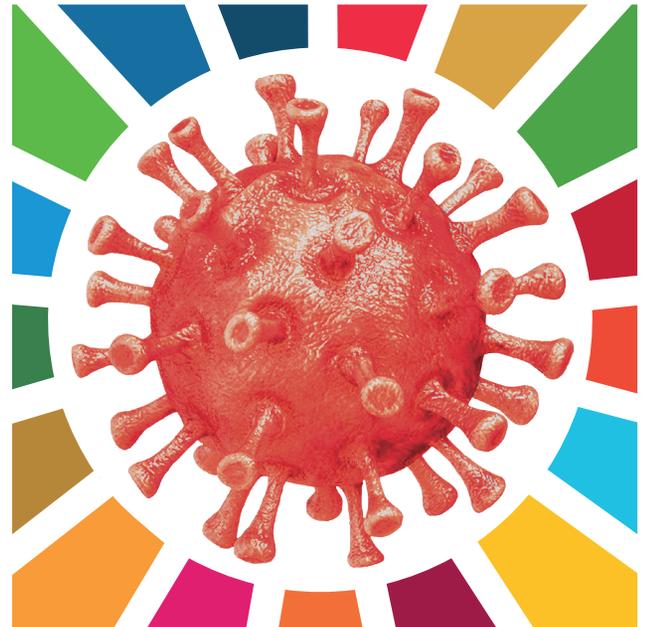
The SDGs and the global COVID-19 pandemic

Back in 2015, the United Nations (UN) established the Sustainable Developments Goals (SDGs) as a guiding framework for what a more equitable and sustainable global society can look like by 2030. Six transformations have emerged from research literature, detailing how we can achieve the 17 SDGs.

Yet in the context of COVID-19, our discussion reached a sobering conclusion: This pandemic highlighted the lack of consistency between words and actions when it comes to the SDGs. The leave-no-one behind principle has long been agreed upon, but countries leading the fight against COVID-19 have failed to put it to use. The most striking illustration of this is the highly unequal distribution of vaccines across the world, requiring an intervention of the UN Secretary General. Hence, there is still a lot to do to preserve Earth's resilience and to ensure good living conditions for everyone. The basic motivation behind organising this event was to inform the audience about the SDGs. The data-based view we shared showed the far-from-ideal state of the SDGs achievement, but it leaves space for a proactive optimism. Only when informed, we can choose what to do next.

Mattia Usuelli

welcome to SSC





Sustainable Contraception

The menstrual cycle, contraception and sexual health are still taboo in most demographics in our society. Many young menstruating people are often poorly informed about the consequences of hormonal contraceptives on their health as well as on the environment. That is why we invited Bea Loosli, founder of ladyplanet.ch, to share her experience and knowledge on natural contraceptives and sustainable period products with students.

I was pleasantly surprised by the amount of questions from the audience at the end of Bea's speech. I believe this demonstrates not only the interest in the subject but also perhaps the importance of making room to talk about menstrual health and sustainable contraception.

Jamila Gysin

Urban Gardening

Urbanroots is a small company based in Basel that helps beginners in getting started with urban gardening. Scarlett, who organizes their workshops, explained the basics of this type of gardening as well as urban composting to us. We learned what subtleties need be taken into account when planting on balconies vs. in usual gardens. This we could directly put into practice with fresh herbs and vegetables which we planted in our own pots to take home! Despite the rainy weather forecast, we were lucky and could spend two sunny hours in Seedcity at ETH Honggerberg. As a student in agricultural sciences I like to be in nature and love to spend time in the garden. This is unfortunately not possible in Zurich in my WG. Through urban gardening I can still somehow connect with the natural elements.

Lena Caminada



Züri HopoTakt - HopoWhat?!

A guest contribution from Anita Ni (MSc), as she dived into the Zurich landscape of students for sustainability.

“Why don’t you do a semester abroad during your masters, Anita?”

Paul asked me probably sometime in summer 2019. He was right. Why not pick the ripe apple?

At that time, I was developing a concept for a sustainability office at RWTH Aachen as part of the Green Office Initiative Aachen. For this, I had already spend quite some time reading about different universities’ engagement for sustainability and had stumbled more than once across what was going on in Zurich. So, the idea of taking my last classes abroad got more concrete. **I knew that ETH was the place I wanted to go** because there I could not only discuss theoretical questions related to my master’s in Environmental Engineering but see for myself how projects I only knew from the website look like in real life.

“Who is free for a trip to the sustainability week Zurich in early March 2020?”

I read one day in winter in my initiative’s group chat, checked my calendar, and was in. Backpack and small suitcase packed, the journey began: a dialogue forum about transforming higher education institutions (HEI) organized by netzwerk n in Düsseldorf, a spontaneous stop for a national Students for Future meeting in Cologne, then to a recycling conference in Berlin, and finally the train took me to Zurich the first time in my life. The first picture I got was impressive: **from HB straight to the panel discussion about the Responsible Business Initiative in the main building whose roof was flagged with the sustainability week’s logo** – a picture almost out of reach at RWTH. But the discussions clearly showed me that here, too, there is still a lot of work to be done. And there are motivated people who do it!

“Haven’t we met at a sustainability summer school in Bad Lausick last year? You wore a cool sweater with bicycles on it,”

I heard myself asking Ulrike two days later when I met the **SSC Development team**. Never had I imagined that I would know anybody at that meeting where they were discussing their answer to ETH’s Sustainability Report. So, thanks to Philipp, who was my host during those days, part of the sustainability week core team and exchange student from Aachen himself, **I got to know various people passionate about making sustainability a reality before I was even officially accepted by ETH**. With the pandemic arriving the week’s end was not as cheerful as usual but still I went back to Aachen impatient to be able to return in autumn.

“It’s the perfect position for you”.

Philipp had offered me to become the responsible for HEI politics in the core team of the next sustainability week. Would I be able to follow classes at a new uni and do the voluntary work at the same time, I asked myself. It would not be me if I had not accepted that challenge. So, there I was at the end of September, just four weeks after I moved to Zurich: introducing myself at the first HopoTakt meeting of the semester which turned out to be the last one in person for some months. **Hopo-what?! The merge of the two German words Hochschulpolitik and (Auf-)Takt is the name of the regular exchange meeting of Zurich’s students’ sustainability commissions and the sustainability week**. SSC I already got to know in March, but SSC is only one out of five! Not only at ETH but also at PHZH, UZH, ZHAW and ZHdK students organise themselves to lead the change. During the next months I learned about the fascinating projects that are going on everywhere: engagement for more sustainable menus in the cafeterias; mental health, gardening, and cooking workshops; the fight for divestment and many more.

“Did we already cross the border?”

As easy as it was for me to enter Switzerland – just keep on driving – we, the students of the different HEI, work together to shape a prosperous future across the borders of our institutions.

There are two things that deeply connect us: we are all students, and we have a common goal: a sustainable HEI – no matter its name. At the same time, I learned how difficult such a cooperation can be on an institutional level, especially when it comes to the decisive part, the money. Still, there are people at UZH, PHZH, ZHAW and ZHdK who do not fear the difficulties and are working towards opening a space in Zurich West where not only we as students can collaborate but where researchers, students, NGOs, and firms shall work interdisciplinary on the challenges we face. This place will be the so-called ZKSD - Zurich Knowledge Center for Sustainable Development. As representative of the students' sustainability commissions, I am in close contact with the founding board to bring our ideas into the development process. Currently, ETH is not (yet) officially involved in this project. But just the way our work has not known borders so far, we will not start accepting them now. I am optimistic that the institutional question of integrating ETH into the ZKSD will be answered quickly because right now, time is too precious to spend it talking rather than acting. Speaking about doing things, let's have a look at how the sustainability week developed.

“I am interested in taking care of marketing. Who wants to join me?”

Mara announced on a Friday night in the Klimaanlage where the new core team was forming itself to organise the next sustainability week. It was a rainy day at the end of October but during the meeting I almost forgot the cold in the church in Wipkingen - students from all Zurich HEI, all new to each other's faces and yet the immediate feeling of a warm home. Several workshops, many post-its, a lot of fun energizers, and some tasty smoked vegan carrot-salmon later, the 9th sustainability week had started taking shape and the work really began. In between my classes of Corporate Sustainability, Production and Operations Management, and conducting a life cycle assessment there were quite a lot of video conferences: meetings with the sustainability responsables of all the five HEI, in particular, gave me important insides in their work and they are our essential cooperation partners. **Yes, all this filled my days with a lot of screen time. But what would have been the alternative? Settle back and wait? Definitely not mine and my fellows' way.** So, I dived into organising the next panel discussion of the rectors and co-creation workshop while also summarizing the results of the past workshop for publication. For the first time we did not only present demands but solutions to the challenges the HEI face.

“Anna, we can give our booklet “Time to act” to Prof. Springman personally in one and a half hours. Can you make it?”

Me, calling Anna at the beginning of March when all the work of the past months was finally paying off. Of course, Anna made it in time and that's the dynamic why I got involved into all of this: **sometimes you hardly know the people, you may have never met them in person before, but you know they strive for the same goals, and you can trust them.** That's also why despite all Corona struggles now I am looking back onto a successful digital sustainability week and looking forward to our anniversary in 2022 and to the opening of ZKSD where I will finally meet people in person who I have worked with for about a year. HopoTakt, the sustainability week and all the people I got to know through it not only gave me new insides, things to think about, but they made it easy to arrive in a new town, welcomed me with open arms, taught me Swiss German, and even helped me find a new shared flat when I had to leave my WOKO room.

“Anita, I'd love to weave your story into for our new journal but the due date is tomorrow.”

That was Anna's message awaiting me on a Saturday mid of June when I came back from my first swim in the Limmat. It is one of the many waves that make my stay in Zurich so adventurous. Coming here during the pandemic was like jumping from the bridge into the cold water: I still do not know all the stones that sometimes hide at the shore but I experience a lot of friendly hands helping me to grab the rope and enjoy the current. When I applied to ETH I had never imagined myself writing a publication for five HEI and handing it over to their rectors personally. Getting to know Prof. Sarah Springman was a little spontaneous adventure and an inspiration in itself. **The time she and her colleagues took to listen to our ideas taught me how important it is that we – the students – raise our voice united.** Even if it is just a bit that you can dedicate to engagement between attending classes, working, and studying – let's take an hour per week for example – imagine how many ideas could not just be created but implemented if every of the more than 69000 students in Zurich followed your example and spend an hour answering the innocently tricky question “How can we make our universities more sustainable?”

growing departmental roots

Leon and Anna, students from DARCH and DPHYS, met for the first time at SSC in 2019. Since then, they have become increasingly involved in sustainability within their departments. But they are striving for more...

January 2021: 'Deterministic chaos and climate physics.' Check. 'Theoretical physics in the 21st century.' Check. "How is DARCH doing, Leon? Ready for the sustainability week (NHW)?" – "All good. Just need to cross-check some points for our exhibition with the core team." We look at each other through the Zoom window. Things have really started rolling over the past year, enough momentum for the long road ahead. Can't we transfer the impulse to other departments?

February 2021: "Having a sustainability officer in each department would be great, of course, but you do have to keep in mind that finances are currently a bit Corona-tricky" says Stella, our SSC-Götti at VSETH. "Right. But let's keep the aim of a sustainability committee in each dep. It's vital that we institutionalize these efforts. Otherwise, so much knowledge and motivation is lost when individual people leave" Leon points out.

March 2021: Growing departmental roots. A slide showing a huge tree, gnarling its way into the ground. An image of strength, an image of connection. We hope it will stick in people's minds even though it's 11:00 pm after a way-too-long FR (Fachvereinsrat) on Zoom. Leon and I just finished our best-practice-presentation, explaining how professors, students, technicians and administrative staff have successfully been working towards sustainability over the past year in DPHYS and DARCH. Visual applause, little discussion. Did the message reverberate?

April 2021: Student faces from every single department. The email on Monday reverberated for sure. We go through a little round of introductions and head straight to the point: "Our university is made of people. Achieving an emission-free university means achieving a change in the way every single one of those people lives their daily life. We can contribute by activating our departments, by asking: How do we measure the emissions in our labs? Can there be a regular slot in departmental conferences to talk about flight emissions?". To support, Leon and I have compiled such questions in a catalogue. They helped guide us in DPHYS and DARCH. Now, we pass the ball to our fellow students.

May 2021: The same faces from Zoom now sit in a grassy circle, gathered around some celebratory Stripped Pizza. End of semester is near; the first round of mobilisation is completed. We reflect on the responses from the professors we've contacted. One thing is clear: The stronger our message of cooperation, the more positive the discussion. Seeing that students are willing to work for the goal of a net-zero university has kindled their enthusiasm. The big question: How to anchor these efforts, give them long-term nature?

July 2021: You scratch your head. What are all these efforts they're talking about? Turn this page to look into the heads of people working on change, right now, in the departments of ETH. Their daily struggles, their motivations, their road-blocks large and small. What did it take to get these initiatives moving and where are they heading?

D P H Y S

Slide-ing to an official committee

(Prof. Niklas Beisert & Anna Knörr, BSc)

Anna: *You know what? I feel like there's a key piece of the story missing in my mind... I was still new at ETH when things started rolling at D-PHYS... I just remember someone mentioning a slide that sparked off discussions in 2019?*

Niklas: *I guess you mean this slide right here. Double clicks on a pdf, annotated with 2-year-old thoughts. It was actually a long winding path that got me there. I was always a bit suspicious about the amount we travel to far-away places. It seemed at odds with our limited resources. But hey, everyone is doing it, so who am I to tell... Then came Susann's air travel project at ETH, so we started discussing the topic in the department and after pros and cons concluded that we could afford to commit to a 20% reduction until 2025. Hans- Arno's suggestion. Pretty reasonable, and a nice goal for a start, no?*

Anna: *For a start, yes.*

Niklas: *Then nothing much followed during the next year or two, but it got me thinking: I just ought to be patient and things would come our way, sure. Agh, but isn't there something useful I could do? Could I make a difference somewhere, even though I'm not an expert? Come to think about it, yes, absolutely! There are just so many ways in which we deal with something that eventually translates to the climate! But first, I*

needed to see the data and numbers.

Anna: *So where did you look?*

Niklas: *With current footprint calculators it's actually very easy to get some estimates on your own actions these days. Yet only few take the efforts. Makes me think, why is that? I suspect it's because it is quite well known that CO2 emissions are bad. But are they really that bad? Your neighbours and everyone else is causing them at some level, so it cannot be that bad, can it? Well ...? As a physicist I should get some estimates and put them into perspective.*

Anna: *And the orders of magnitudes had you gulping...*

Niklas: *From that moment on I started bouncing around talking to various people in meetings, mailing lists and at conferences with very mixed success: Concerns were now typically shared, it had become an obvious topic to talk about at that time. But what can we do about it for our own professional life? Uh well not so fast, I didn't actually mean to talk about that... conversation changes topic...*

Anna: *Sounds like a satisfying conversation....*

fact that even though flying only makes up 4% of emissions world-wide that's definitely not the case for ETH's emissions: more than 50% mobility with 90% due to flying... I was shocked!

Niklas: It depends a bit on how and what you count, but yes, they are significant! And importantly these ones are controllable by us, they are squarely within our responsibility. At the same time, it makes no sense if we reduce our own academic influence away by ceasing to travel at all – see the half-way-talk – and leave the field to those who just don't behave responsibly for whatever reason. This was always a fine line we to walk. And I think we'll all remember the long challenge of writing all these ideas up...What to write, how to express, knowing that the perception will easily deteriorate into black and white views even if we merely intended to show a workable path with gradual changes...

Anna: *Nodding vigorously. Oh yeah, I won't forget writing that education section. Wracking my brain, staring at the screen... it sure wasn't easy. But it's really important to keep sight of the basic goal: making sure that students don't just hear numbers and graphs but realize this is our life we are talking about. Honestly, what I enjoyed most about that first AG experience was it made passive knowledge sink in for me. It's like not just listening to a lecture but actually working through problems.... You process the material by trying to find a solution.*

Niklas: Well, that's how it always is in physics, isn't it? But eventually my concern was that all our efforts would be in vain if the department got them the wrong way and the document didn't pass the DK in October...

Anna: *But it did!*

Niklas: Oh yeah, that was something! And since you couldn't be there in person to speak up, you sent me that recorded video message, very nicely done and very much too long. *Teasing smirk*. So that morning, I made a rare visit to the office where I wanted to prepare and print out some notes. Instead, I scanned through the video in a hurry trying to figure out what's most essential, and then cut it to a 3-minute message. But I think it made a difference in the end, along with the support of the other professors in the group members who explained why something like our report was needed. It was a happy moment.

Anna: *Haha, yes I remember your celebratory message to*

our emailing list: „... the news of the day is that we got tested positive!“

Quoting Niklas Beisert (2020-10-02 18:44:45)

- > Dear all,
- >
- > As several of you have seen, the news of the day is that we got tested
- > positive! I should say that I'm extremely glad about this step because
- > it shows that we did not only spent our time this spring by just
- > discussing -- which was inspiring in any case -- but that our work is
- > respected by our colleagues. Thanks for your contributions, throughout
- > the last half year, but in particular for expressing your points of view
- > today!

Figure 2: One of the best emails

Niklas: This was in fact also a reference to a positive test case among the teaching assistants in my lecture course which came out during that week. It cost me a lot of nerves as it was one of the earlier cases in that constellation, unclear whom and how to inform in practice, how to proceed with the affected tutorial group, the bubble system, and so on... but let's get back to the story. How did we proceed from the approval? This was a mile-stone, but what to do next? It was clear from the beginning that it will not pay out if the department's intentions are not known to the department. But even that first step of widely communicating the success was non-trivial... It wasn't clear who was responsible.

Anna: *Yeah, I felt a bit overwhelmed, too... Do you remember that long conversation about the news item, email lists and especially setting up the website? On the HIT balcony?*

Niklas: Ah, that was a nice occasion during those days, yet a bit hazy in my memory. As always there were many things going on in parallel. You push some aside for a while to focus on something specific, but eventually you have to take care of all the other matters. But the clock was ticking, the news is only news for so long after all.

Anna: *Sighs. Yes, I also remember fitting in a VAMP article about the DK one evening. It did cheer me up after a way-too-long Praktikum's experiment!*

Niklas: Spreading the word is one thing, and a challenge in itself, but eventually some of the ideas should be put into practice. Besides enabling our members to reconsider their

own actions, for me this was always had a long-term nature.

Anna: *True. But I do think we made some progress in that respect that semester. Günther Dissertori was still our director of study and he certainly was very open to discussions about the educational aspects!*

Niklas: Yes, we managed to make a couple of courses connecting sustainability with physics easily creditable in the Physics Master. It was mostly a formality, but the highlighting could encourage some of our students to give this direction a thought.

Anna: *And some of us students also got started in fall on that interview project... young DPHYSicists interviewing physics alumni and exploring how they have used their skills to engage with the environmental crisis.*

Niklas: I've been curious all along, ... can they be found anywhere?

Anna: *Well, with Corona hurdles carrying out the physical interviews took some time but I'm super excited to present the very first article now! It's uploaded to the website together with our teaser video. Jan and Petia's interviews should be up there next semester, too!*



Niklas: That's really nice! Looking back, setting up that website really was worth it. We do have a fair bit of material up there by now – our document, interviews, articles... oh and the sustainability week, of course! How did that idea come up by the way?

Anna: *Laughs. One of those late-night-conversations where you dream about projects that would be cool... and then a few months later they're real! A Zoom in November, to be more precise. My architect friend Leon Beck mentioned that preparations for the annual Swiss-wide Nachhaltigkeitswoche in March were getting going. And we just thought it would be cool to bring the week to Höggerberg! Then as Corona waves continued, the idea morphed into a virtual week with events designed specifically for DPHYS and DARCH students.*

Niklas: It certainly was a full week... Talks about solar energy tech, climate simulations... and the Kickoff! I was surprised that over 30 people showed up to help implement the document for real!

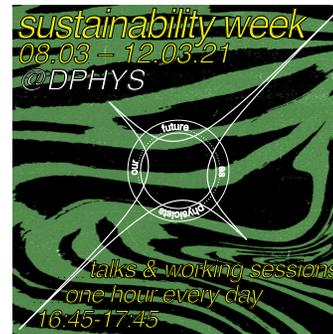
Anna: *I don't even know how many emails I sent the two weeks before that Kickoff... After all, the 50-page document wasn't going to implement itself, was it! Again, we needed to get all levels of the department talking to each other and find the right people to take care of manageable tasks.*

Niklas: True. Overall, it had a good “team” feeling to it.

Anna: *Glad to hear that! Team spirit really generates the momentum we need to move projects forward. Even though... more top-down support is also necessary. In the long run, I do think we need someone who is employed to take care of administration and coordinating with all the central units like ETH sustainability, infrastructure... Don't you think?*

Niklas: Hmm. For the moment things are working quite well, after all we do have a bunch of engaged colleagues at various ETH units, and all of us are making remarkable progress. But you're right, this level of engagement on top of everything else is not sustainable in itself. In that sense, I'm very glad our department has formally implemented a sustainability commission to keep these efforts alive for the critical years to come. And other departments are implementing similar structures in their own way. That's so great to observe!

Anna: *For sure! And it gives us a goal for next semester: Let's breathe life into that commission!*



DPHYS

My daily struggle (Larissa Boie, PhD)

It starts with an email from Anna:

Hi Larissa, could you use your channels to distribute the information about the sustainability kick-off in two weeks? It's for students, but also the scientific staff is invited to get involved, and we need many participants. Of course you are more than welcome to join as well ...

Something similar to this was in my mailbox at the beginning of March. Oh no, more work. I was about to hand over the presidency of the scientific staff association at D-PHYS (AMP) and wanted to finish my work, not get involved in more projects. There is also a PhD going on in my life.

But then, I know that this is important and I did not spend many hours last year in the CO2 working group to then do nothing when it comes to implementation. Also, is it not better to actually do something rather than just talking about it? Is this not exactly the reason why so little has changed so far? And is it not necessary to be involved to get a say in how things will be done rather than having to accept what others decide? Saying no is anyway something that I could be better in.

Ok, Anna found my guilty conscience. I write an announcement for the AMP newsletter, and I free some time during my precious laser weeks (when I get to work on my experiments in the lab). After all, Anna is so committed and I am happy that someone has the drive that I wish I had. It's hard to be annoyed by someone who fights for the right cause.

Day of the kick-off: Oh, interesting, so many people. I am surprised, more than I thought. And among the familiar faces so many new ones. Well done, Anna, your perseverance was worth it. And wow, all the material for the working groups on the D-PHYS websites, very official. Not even an excuse to opt out, because everything is so well prepared. Maybe someone even joined because of the newsletter announcement we sent? (Slight hope that I somehow contributed to this success...) Hm, what group do I want to join? Maybe not the obvious one, let's go to "operational emissions". What sounds abstract at first is affecting me as a scientist very specifically. Does someone want to cut down the amount of electricity I am allowed to use? What about all the air-conditioning without we would never be ready to measure anything?

In the breakout room: Alex, Thomas, Martin, Alessandro. Cool, another PhD student. Did we already meet? Which group could he be in? *"Hi, I'm Alex, I am doing a PhD in the Imamoglu group"*

"Hi, I'm Thomas, I am a technician affiliated with the Ensslin group". "Hi, I'm Martin from the Lab Support Group".

Ok, good, people that actually know something about technical equipment. And wow, Thomas prepared some analysis for this meeting. Oh god, why did I not prepare something for the discussion? But good that Thomas did it because now we have a starting point for our analysis. The meeting is surprisingly concrete, we even end up forming

an Element chat room where people do something after the initial setup. The next day, Alex, Thomas and I meet in Thomas's office and Thomas shows his analysis. He has put quite some effort in it. And all of this in Spreadsheet! So painful! Maybe Alex and me could do something cool in Python... But wait, when do I have the time exactly to do this? Ok, good the outcome of our meeting is that Alex arranges a meeting with the people from the facility management to learn about what they measure and where and what data could be made available for us. Puh, lucky me that I don't have to schedule the meeting. Now I can wait until someone else does something.

A few weeks later: Still no email from Alex about the meeting? Ok, no problem, I have enough to do, someone else can follow up on this. I will be leaving ETH anyway, why did I care again?

A few days later: Oh, email from Alex, meeting scheduled, it gets serious again.

Day of the meeting with the facility management people: Oh, very nice people. When would I have had a chance to meet them if not in such an environment? I know, never. Good that we talk, so many interesting perspectives! And we are on the same pages, wow, so productive. They want to give us access to their data management platform so that we can play with the data that is concerning our buildings.

We now know how to determine how much energy our buildings consume, how to evaluate the cost of helium liquefaction, we can get the water consumption. A good start in tracking how many resources our research is actually using, which I think is a great result out of a one hour meeting I would not have expected before.

Cool, but – wait, visualizing this data to inform D-PHYS about the status quo means again work for me. I know it's important, but when...? Ok, I am on holidays next week, I'll think about this after my return.

Today: I know there is only so much that everyone can do on top of their daily business, but isn't it important that, despite all the doubts one has, one dedicates just as much as possible? In the end, who should blame you for your limited effort? It's better than nothing and I don't see many people waiting to do what I have started. Being tired about the topics and the never-ending story is fine. Take a break, continue when possible. But one

thing: please don't become ignorant about the climate crisis.

Some initiatives only get to our attention by accident, why not take the momentum and say yes to a tiny bit of work for an important cause? People like me would be very happy about it...

DMAVT

Caring and being cheeky

(Julia Jäggi, BSc)

An insight into department politics, our route towards sustainability and my cheekiness as a barely 19 year old in front of 40 professors:

I want to tell you the tale of how a sustainability bud turned into a little green plant that is ready to become a tree – it just needs a few more droplets of water.

When I first joined the university politics team back in 2017, I was amazed to see how much we, as students, could change. The department organizes itself with many similarities to a parliamentary structure. This means that the departmental leadership is a professor who is newly elected every two years. If there are things that need to be changed or clarified, there are various groups which take care of that: either short-term working groups, filled with professors and students, or reoccurring commissions like the *Unterrichtskommission* or the *Raumkommission*. Those groups present their findings in the departmental conference (DK) which takes place four times a year. The DK is the time where all professors as well as seven student representatives and six scientific staff representatives plus administration and technical staff get together to discuss and vote on the pressing issues of the department. Sometimes, at the very beginning - when many professors are still in a lecture - the students and PhDs nearly have the majority. So, if you are looking for a way to overthrow the department... this is the way to go ;).

Now to the actual story. After one year at ETH, I was elected to head the university politics team at MAVT. That meant
22 growing departmental roots

I suddenly had a say in decisions that would affect 3000 students. I was barely 19 years old and had never really spoken to a professor before.

Nervously, I sat at my first DK when Professor Mazzotti got up and presented an interesting initiative. I learned that ETH had determined that most of our university's emissions are coming from air travel. As a response ETH had commissioned the departments to come up with individual solutions and D-MAVT put together a working group for this purpose. The idea: pay a fee on each ton of CO₂ emitted, buy offset-certificates and redistribute the rest to research projects that help to reduce CO₂.

The department was not happy with that solution at all. There were concerns that only Prof. Mazzotti's research would benefit from this change... People were angry that they should pay the compensation fees without much chance of receiving funds for their own research. There was quite a lot of tension in the air. I was sad that this important topic did not seem to find many supporters. Yet I did not have enough information to determine whether I myself should approve of this solution.

There I sat and raised my hand without really thinking about it. As a little side note – in all my previous DKs I never really experienced students speaking up and sharing their opinion. But there I was, raising my hand in front of 40 professors and I said: "Why are there no students in this group? I would like to join this discussion." Well, maybe I said a little bit more "ehms" in there, but the benefit of me writing this text is that I can leave them out and act as if I was totally sure of what I was doing ;).

That is how the first sustainability-related working group, which

included all levels (students, professors, doctoral students), came to be. It was the first working group I was part of. We started working as a team and, at the next DK, most of the people were happy with the solution we proposed. There was not much opposition and only a few minor changes were made. That was in December 2018.

The new solution is called **MAVT CARES**. The professors do pay a fee for every ton of CO2 emitted by their lab. On the one hand, offset-certificates are bought with that money. On the other hand, focus projects in which students pursue one or more of the United Nations' SDGs (Sustainable Development Goals) are financed.

Focus projects are projects which students can do in their third year instead of lectures. Until then, only the professors and PhDs came up with ideas, and students could apply to work on these. Now students can come up with their own ideas. The hope is that this leads to a new generation that has internalized sustainability considerations via hands-on projects.

The first sustainable focus project that got funding was *Rowesys* in fall 2019. *Rowesys* built a robot with the goal of lowering the use of herbicides in agriculture. The autonomous robot removes weeds mechanically while avoiding crops. This year we will again have two focus projects that are funded by the CO2-emission fee.

After that, it got quiet in the department regarding sustainability. I dove into the topic in my personal life. What produces the most emissions and where can I cut mine? I started informing myself what grows when and how I can grow my own stuff. I watched documentations like *Cowspiracy* and *Dominion* and as a result became vegan; I joined activism groups and tried to tackle climate change on a personal route.

Then, in early 2021, I heard of a central working group investigating how to achieve ETH NettoNull. Cultural change is a key factor here – we all have to consider what a carbon-free daily life actually looks like – and hence students in that group had decided to be proactive. They wanted to bring the discussion to the departments. I was very motivated after hearing about this, and a new project took shape in my head. My biggest problem always was that I needed so much energy to start a new project. You just simply could not do all of them. For each project you first need to get the ball rolling. But I realized this was a general problem. Whoever has an idea

needs to put a lot of effort and time into it, until other people even start looking at it. So, we gladly took this ball of energy that was being passed to us. Got together with all levels and set the bar high. We wanted to integrate sustainability into DMAVT holistically.

In the student association, our vision is to establish a *permanent* sustainability commission. We want to organize events to educate people about sustainability and be a place where people can get help to make their own events more sustainable. Here, we can cooperate with SSC but reach even more people through our own existing newsletters and networks. This commission should also be a place people can come to with their own ideas and turn them into reality. It takes away this initial burden of not knowing where to start, how to pay for it.... That's what we want to help with.

In the department, we now have the goal of implementing an instrument that *continuously* finds ways of reducing our emissions. That way we do not have to wait for the schoolboard to give us a task but can rather continuously improve ourselves. It does not just need one change if we want to be net zero by 2030.

To find and implement this instrument we have launched (another, I know :p) working group. One possible idea is to have a recurring commission with elected representatives with a regular slot at the DK, giving our work regularity and a more prominent place in the departmental structure. No more need for a new working group for every new idea.

We already had our first meeting, and we were lucky enough to find three really motivated professors to join the team. It is so nice to see more people joining the fight, finding others that are concerned or frustrated about the situation and are fighting for a change.

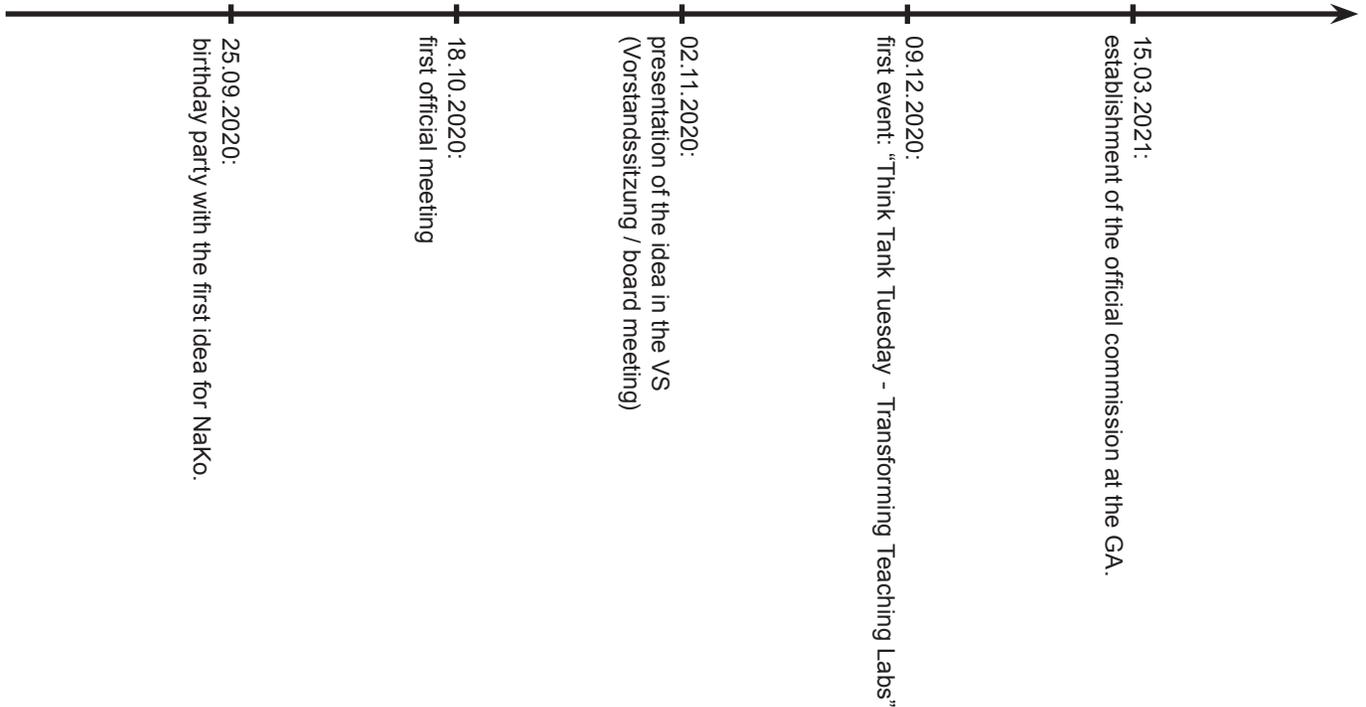
I feel heard. If even professors struggle with the same thing that I do, I cannot be delusional. Society always has inertia, but I hope ETH can take a leading role and show that change is not always bad but rather often a positive thing.

People were once afraid of women starting to work. Now I can work alongside so many competent people no matter what gender and get to speak up. A famous saying goes "Be the change you want to see in the world" and I believe if we all just tried to stick by that even a little bit, we can make the world a better place.

DCHAB

How to NaKo in 172 days!

(Mia Ritter, BSc)



The first scene in this story of our NaKo is set at the end of September last year: a small birthday party, cozy atmosphere. After some drinks, the topic of sustainability came up, together with the question of why there was no such thing within the VCS. Some of us already knew the central SSC, but we wanted to be active within our own student association and more closely connected to our daily studies. Amidst the jovial mood, we agreed to discuss the idea again a few days later with a clearer head and in a more structured way.

At our first meeting, there were four of us and we were still motivated. We thought about initial ideas that we could implement straight away and made plans on how to become a fixed structure. It was clear to us that we wanted to officially incorporate our initiative into the VCS, which we initially planned to do as the *Arbeitsgruppe Nachhaltige Entwicklung*. The *AG NE* was intended to serve as a proof of concept, since the hurdle for establishing an AG is of course much lower than that of a proper commission. After all, the latter includes, among other things, an amendment to the statutes. So to introduce our idea and the *AG NE*, we wrote a position paper in which we listed our motivation, reasons for VCS to support the *AG NE* as well as planned and possible projects. The position paper meanwhile has a central role, as it is now revised every semester and presented anew at each VCS General Assembly.

We also benefitted from having put effort into the position paper when we presented ourselves to the VCS board on 02.11.2020 at one of their public board meetings. We directly gained their support, learning afterwards that the position paper greatly contributed to our ideas being perceived as serious and not as ill-considered and chaotic.

Based on the position paper, we tried to define as clearly as possible areas of responsibility and to present possible short-, medium- and long-term projects. Projects included creating greater environmental awareness at the VCS Kulturis' events, making our student labs more sustainable, and building a network of contacts within the department or with other student associations.

The topic of student labs was taken up right away and just over a month later the first *Transforming Teaching Labs* event was held. Although it was over Zoom, there was lively participation. Discussions were held in small groups, and the first concrete approaches to sustainability in the labs emerged. In addition,

we met fresh faces – students who were interested in actively being part of the AG. All in all, a very successful Zoom.

A good three months later, our student association recognized these promising achievements and we were officially appointed as a commission of the VCS at our general assembly. More specifically, our AG is now a *Kommission* and not a separate *Ressort*, primarily because we did not want to increase the number of board members. In order to be integrated into the main information flow nevertheless (and to fulfil the requirements of our statutes), a board member was appointed as official president of our commission. This is done according to the personal interests of the current board members, i.e. independently of the *Ressort*, but does have to be confirmed by vote at the general assembly. At the moment, the VCS bursar has been elected to be our president. Furthermore, the commission currently does not have a budget, but this should change next year.

In the meantime, we have grown to 10 active members in the commission, spread over all years and all our study programs. We are not short of ideas and are currently working on a new event series, simply called *Sustainability Talks*, where speakers from research and industry will present various sustainability topics relevant to students at D-CHAB: A greener chemical industry, carbon capture, social sustainability, etc. On the other hand, we have already prepared a concept paper as part of the *Transforming Teaching Labs* project and working on implementation together with a professor and laboratory course. For example, Waste Management is particularly important to us here, which is why we took a tour of the wastewater neutralization plants on Höggerberg, guided by the SGU (committee on *Sicherheit, Gesundheit, Umwelt*). We are working on making such tours to all students and assistants in the labs to create more awareness of the problems associated with the disposal of chemicals. In addition, we are actively involved in student mobilisation for achieving a net-zero ETH and support the VCS Kulturis in making the events as environmentally friendly as possible.

DBSSE

Teaming up in Basel

(Nina Blaimschein, PhD, & Muguetta Müller, BSc Uni Basel)

>>> September 2020, Basel:

Nina Blaimschein had recently started her PhD at the department of Biosystems Science and Engineering (D-BSSE) of ETH Zurich in Basel. She had long been motivated to make her environment more sustainable and this motivated her to hold a short online presentation on sustainable lab practices. Hoping to find a group of like-minded students, she stumbled upon the SSC, based at ETH in Zurich. While they were able to collaborate well together and organise city tours and online events, Nina felt the distance between the two cities more than she had expected...

One SSC board meeting later, Nina was equipped with a contact at Uni Basel - Muguetta Müller. This was the first step in what would later become a well-connected, intercity, inter-university sustainability team at D-BSSE...

Nina (emails Muguetta to find out if there is potential for a partnership):

„Hey Muguetta,

I am a PhD student at the D-BSSE at ETH in Basel and recently joined the SSC in Zurich who gave me your email address. They told me you are also interested in sustainability/ already have an organisation? I would like to organize more sustainability related events here in Basel at my department (and Uni Basel).

Looking forward to hearing from you.”

[Muguetta](#) *(in reply to Nina’s email):*

“Dear Nina,

It’s always great to hear from other motivated students! Here is what we’re doing at the University of Basel:

There is a group (SDUBS - Students for Sustainability at the University of Basel) who organise the Local Sustainability Week annually. This is a nation-wide event and the ETH actually organises their own chapter in Zurich.

The other group is called the AG Nachhaltigkeit (‘Working Group Sustainability’), which is financially supported by the university to support and carry out student projects in the area of sustainability. For example, we have put together a sustainability map for the city, we are collaborating with the cafeteria to reduce the use of single-use coffee cups, and we greenroof the university buildings, which essentially consists of growing a meadow on roofs to promote inner-city biodiversity in the form of insect and bird habitats safe from the human activities below. Do any of these projects tickle your fancy for your own department? We can of course always support you with your own projects if you like - our little group has amassed quite a bit of experience and a great network of experts...”

>>> *Cut to the present day, when Nina and Muguetta are on a Zoom call:*

Muguette (*reflecting*): Wow can't believe it's almost been a year since we first connected. And to think it all started with you reaching out and us finding a common passion for green roofing. Do you remember how long it took us to work on that proposal? We had to explain (in depth!) the benefits of such a project, not only for the biodiversity but also the city's climate and drainage systems, as well as the ETH's reputation if they would invest in Basel's environmental wellbeing like that. What is the status of that project anyway?

Nina: Yes! So cool that you offered to help us back then. It was also the first time I got in contact with Prof. Panke (*CO2 representative at DBSSE*), who could give us tips on how to make the project as attractive as possible, and who to send it to. It was a great team effort and since I handed in the proposal in November 2020, we got a supportive answer from Dominik Brem from ETH Real Estate. Now we just need to wait for the BSS building to be completed and then we can look further.

Muguette: Really great to hear. I'm also relieved for your sake that you don't have to do it all alone! What's it like being able to do this work in a team?

Nina: It's been great to bounce ideas off of one another but of course, given the global pandemic, it's been hard for us to recruit people. Honestly, though, keeping it small and dynamic has worked for us so far! Simo Baghai, myself, and our other colleagues have been able to come up with projects like reducing the distribution of print media in our department.

>>> Recently, D-BSSE also started being monthly attendees at the AG meetings of University of Basel:

Muguette (*after the Monthly Meeting*): I'm so glad you managed to come again! What did you think?

Nina: It's always fun to mingle with you lot! Simo and I have actually been discussing if we also want to implement an Ecosia Campaign at the ETH, like you have at the University of Basel. Simo has even already contacted the student running it on your side, as well as the SSC in Zurich, and we think that the collaboration can help us get it off the ground for us, too!

>>> Things are getting serious at the professor level as well:

Prof. Sven Panke: Nina, when we were discussing how to move our department in the direction of emission-free operations, I came across the document of D-PHYS where they calculated their CO2 emissions. Sustainability is a serious topic and I've been inspired to found a similar working group here at D-BSSE as well.

Nina: I think that's a great idea! We should include people from all areas of the department to get the biggest output. You also mentioned this at the DK already, right? What were the reactions?

Prof. Sven Panke: Yes, my colleagues are also committed to reach the goals the department set itself and some would like to contribute even further.

Nina: That's amazing. I like the spirit and motivation!

As you can see in the above exchanges, the D-BSSE has been able to maximise its rare position between being part of the ETH but positioned in Basel by connecting people across universities. Sustainability can bring people together and make fertile collaborations.



DARCH

Opening doors

(Leon Beck & Leo Schönfelder MSc)



Can you remember when you first stepped into ETH? Did you enter the main hall through one of the impressive old doors opening automatically with a majestic swing? Or did you enter through one of the side entrances of the research buildings? When and wherever it was, you entered a door which had been chosen by an architect. That door is part of a larger concept - the building itself. Now zoom out: that building is embedded as well in a masterplan. This overarching vision has a great influence. It shapes the very way you experience your daily life, as you move through these familiar surroundings.

Yet these buildings have another dimension: The building sector is responsible for more than one third of global emissions, waste produced, energy consumed, and natural resources excavated. This fact can be overwhelming, but it can also be inspiring to delve into a field with such huge potential in contributing to solving the climate crisis. With this mindset, take a walk with us architects through ETH, retracing the doors we pushed open...

We came together one and a half years ago as the Sustainability Group at the department of architecture (*Arbeitsgruppe Nachhaltigkeit*, AGN), understanding challenge as a chance to thrive. Over three semesters, many different projects evolved to tackle the problems we face on many different levels. Not only are we now bringing research and teaching closer together, we also are trying to get more and more involved in infrastructural and organisational questions.

We built up a website including a digital knowledge base, an overview of current exhibitions, projects to get engaged

in and courses offered. Our website also provides an online space to discuss questions and ideas. This we extended by organising discussions as part of the Sustainability Week Switzerland 2021, or in the context of the project presentations in the final semester of our architectural studies. More than half a year ago, we also tackled some very practical issues, like the enormous amounts of waste in the design studios, by establishing a digital material market as well as a physical place to store and exchange modelling materials.

Let's take a more detailed look and enter one of the main doors into the discussions we led: The question about how and how often we travel between different locations accompanied the AGN from the beginning. This started with a debate at the departmental conference about restrictions on air travel in 2019, continued with personal engagement of some of us in the *ETH Flugreisenprojekt* and led to discussions on strategies to raise awareness about the impact of the way you travel. By foot, by bike, car or by plane? This is embedded in the broader debate on how we value the emissions released by travelling compared to the experiences gained by visiting architectures on the other side of our planet. But where is the balance between furthering knowledge and emitting CO₂?

Leaving these questions unanswered for now, we knock at the next door. It leads to the building services at the Hönggerberg. Speaking to these people gave us hope in the AGN that we're on the right track, but we need to do more. Ideas arose like organizing a tour for architectural students to make them

more aware of what happens over the lifetime of a building or initiating a debate about the comfort expected within rooms and corridors, open and closed spaces. The question came up of whether a university has to be accessible day and night or if there are other ways to serve its members and express the same kind of openness?

Go ahead, peek into yet another window: the AGN also spoke with other administrative units. These conversations were a first step towards deepening the dialogue between DARCH and central staff of ETH, such as the *Real Estate Management*. Stronger links of this fashion can help units tap into the knowledge which our department can provide on efficient and yet appealing architecture, allowing us to sustainably enhance the buildings to come.

Closing the door of the administrative wing of the building behind us, our gaze comes to rest on a large group of students and professors; we hear a huge variety of discussions on different aspects of the discipline of architecture and how to change it towards a more sustainable future. But at the AGN we took a closer look and saw that all the groups were and still are quite self-centred in their debates, only from time to time do some students exchange between them. They all seem to have withdrawn to their studio spaces or lecture halls rather than sharing one large common forum together. If you sneak into different rooms, you, too, will notice that several professors are already including the topic in their curriculum, asking their students to build more responsibly and with greater respect to natural resources. However, how can you feasibly measure sustainability in a design-project? How do you want to grade an aspect of a project if there are only contested definitions of sustainability? Again, these difficulties are an opportunity, letting you leave your comfort zone and enter a space of fresh approaches.

With all these impressions flooding in, you feel a gust of wind. It is the drive we felt at AGN in FS21, together with student representatives from *architektura*. Driven by the initiative of SSC towards a net-zero university, we made ourselves on our way to find some new doors we hadn't noticed before. We knocked on them and talked to the people living behind. About their understanding of sustainability in general, about challenges they are facing in particular, and their ideas of possible ways to achieve a climate neutral ETH by 2030.

The force of the wind pushes open the double winged doors of DARCH itself. You see how we initiated a new round of debate with several members of the department who had supported us in previous stages. We wanted to think more deeply about structures that guarantee more interaction between the different stakeholders. Among them the current dean, the department secretary, engaged professors and members of the academic mid-level, as well as the future dean. We started the discussion with the aim of coming up with ideas for a net zero strategy for our department. We ended in a debate on which goals should best be included in an ETH wide strategy and how DARCH could effectively contribute to reaching these.

What now lies before your eyes? At the AGN, we realized the necessity to develop a new kind of structure - let it be an advisory council or a commission - which could serve two purposes: theoretical debate and administrative embedding. Providing room for open, content-based discussions on the one hand, and making sure that problems are tackled efficiently by connecting the right people on the other. Whether this proposed structure provides both or whether we should split these needs - one entity for discussion and one for action - remains to be seen. However, one thing is clear: there is a demand for financial and personnel support to implement this structure, coordinate the discussion, keep the exchange alive. These upcoming tasks are resource-intensive. But they have to be done.

Imagine one last time the master plan we've been wandering through and understand it as one whole with all the rooms connected. Some by larger corridors, some by grand gates; some back doors, some wallpaper doors, still camouflaged. We believe that the debate about sustainability is revealing a lot of the still camouflaged doors, the potentials still-to-be-unlocked within ETH. The debate itself is already on, actions and projects are already underway. However, we see that better communication is vital. Greater visibility of what is happening inside DARCH towards the outside – providing information and inspiration based on the projects we are developing. Better exchange amongst ETH-departments as well as maintaining the link between different organizational levels of ETH to avoid task duplication. And finally, the need to keep the discussion going permanently, to institutionalize the question of "*What is sustainability?*". To draw a true master plan for the connected rooms of a sustainable ETH.

back to the future

July 2021: Will you embark with us on one final little journey? Turn the pages and head back to the future? Realizing that in the past, people actively shaped the categories in which we think about sustainability today, we wonder what possibilities lie ahead...

back to 2008: Reflecting on Transitions

with Christine Bratrach
(Director of ETH Sustainability 2008-2021)



Dr. Christine Bratrach
Director of ETH Sustainability



Prof. Ralph Eichler
President of ETH (2007–2014)



Prof. Peter Edwards
Environmental Systems Science



Prof. Lino Guzzella
Engineering/Energy Systems



Prof. Stefanie Hellweg
Environmental Engineering



Prof. Volker Hoffmann
Economics



Prof. Vittorio Magnago Lampugnani
Architecture



Prof. emer. René Schwarzenbach
Head of CCES (until 2016)
Associate Vice President for Sustainability (2011 - 2014)

Figure 1: A team of pioneers. Rethinking structure and mentality of sustainability in 2008.



After 13 years of putting vision into practice, Tine is about to move on. Exchanging Lucerne for Zurich this summer means a change in location, but she will remain dedicated to her values when leading Continuing Education at the School of Engineering and Architecture at the Lucerne University of Applied Sciences and Arts as Vice Dean.

Let's take a few moments to listen to her early memories of ETH, of the year 2008 in which ETH Sustainability was born as the unit for coordinating sustainability at the very core of our university. Let's listen to how the concept of sustainability itself was reshaped by a team of pioneers and how this was translated into practice in subsequent years.

“The office of ETH Sustainability in 2008? That was a desk with some flowers, a cup of tea and me. But I soon got a helping hand I will never forget: I first met Catherine while we prepared an exhibition for the Alliance for Global Sustainability. She had just finished her ETH studies and had been part of the project21 – the predecessor of SSC. I invited her for an interview in bQm.... and it was love at first sight. Her enthusiasm was crucial to getting many projects off the ground, right from the very start.”

“I was not alone in another sense, though. There was the steering committee. A group of seven people, five professors, the Director of Sustainability and the President himself. It was a dream team – so committed and dynamic. Being highly recognized and deeply anchored in their respective department, the professors could bring in crucial perspectives to our central discussions and carry information back, too. Definitely ‘cooperation resulting in action!’“

“Before I arrived at ETH, the steering committee surveyed existing efforts towards ‘sustainability’ at ETH and came to the conclusion that a central unit was needed as an interface. That’s how my position as director of ETH Sustainability was created in the first place. Together, we then reconceptualized how sustainability is approached at ETH. The framework still holds today: Research, Education, Campus, Dialogue. This was no longer just about greening the campus but a much more holistic topic.”



Figure 2: From student-activist to game-changer in the early ETH Sustainability team – Catherine Lippuner.



Figure 3: A flagship moment of ETH in dialogue with the public and politics for sustainability. Tine thanking Moritz Leuenberger, then federal councillor for his speech at the ETH-Energiegespräch 2009.

“One big catch word back then was ‘ivory tower’. ETH always needed to let the expertise stored in its silo of knowledge flood back into society. This, too, was part of rethinking the aim of ‘sustainability’ holistically, of integrating ETH’s efforts in sustainability into society “

“Each year, a selected handful of leading ETH researchers in the field would give high-profile talks on the subject, followed by an address by the federal councillor or another high level policy maker, panel discussions and a lively apéro in the HG. It got our researchers in direct contact both with politicians and the public.”

“Each year’s ETH Gespräch was thematically tailored to our chosen ‘focus of the year’ and broached issues that would become highly relevant in Swiss politics over the next year. The Klimagespräch (2009) and Energiegespräch (2010) were a particular success. Of course, in the case of the Energiegespräch we had certainly not anticipated Fukushima happening shortly after, but in the following months you could clearly see the impact of that ETH Gespräch on discussions in public and politics.“

“I remember students from project21 contacting me and asking incredulously: “How is it possible that not all students are brought face to face with sustainability topics during their studies at ETH?! Topics like wise use of resources, sustainable energy production or sustainable future cities? How is it possible that you spend years of hammering through formulas and textbooks without thinking about these real issues?! In 2010?!”

“What has kept me going over the years is hearing again and again from students that their eyes have been opened by such programs and they have gotten a glimpse of what a sustainable world might look like. “

“The summer school in Ethiopia was in fact one of our very first projects at ETH Sustainability back then. It was dedicated to the topic of sustainable architecture and organized together with D-ARCH and our partner institute in Addis Ababa. I’m so proud to see where that first school has led to – not just further summer and winter schools but the ETH Week. It has grown into a high-profile program where students from all fields of study work together on their own ideas for projects related to complex societal questions. I’m so thankful to our rector Sarah Springman for her support and dedication to students, always striving to make education truly valuable.“



Figure 4: Years of dedication to sustainability in education, of summer and winter schools organized out of conviction have matured: the ETH Week .

Energieraport 2002
Jahresbericht für EnergieSchweiz



ETH 0001 91.041 / 1.01 - 0002.0001.001

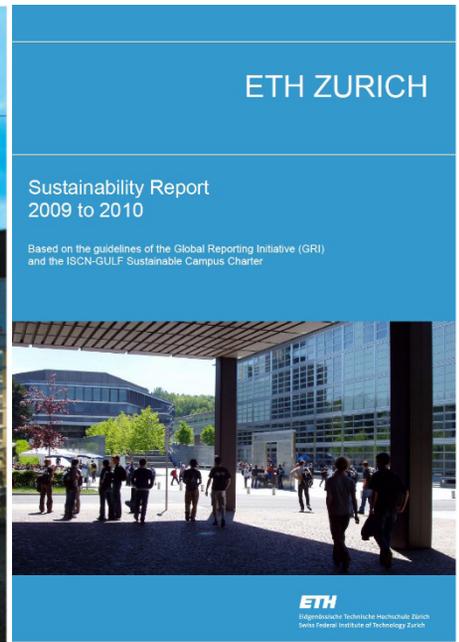
Zürich, 29.12.2003



2005

Umweltbericht der ETH Zürich

ETH
Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich



ETH ZÜRICH

Sustainability Report
2009 to 2010

Based on the guidelines of the Global Reporting Initiative (GRI)
and the ISCN-GULF Sustainable Campus Charter

ETH
Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

Figure 5: From Energy, to Environment to Sustainability. The holistic approach joins forces with in-depth reporting.

“You might think it’s natural for a university to report on their sustainability efforts. But again, this was a new concept back in 2008/9. ETH certainly already had its Energieraport, going back to 2002, and then the Umweltbericht starting in 2005. But shortly after I arrived, we decided together with the steering committee that proper dedication to sustainability needs proper reporting. Hence, we launched the Sustainability Report.”

“I should mention that these efforts were – and still are – part the GRI (Global Reporting Initiative). In order to make actual progress, it is crucial we keep track of our status quo, after all, and share a common framework with peer institutions.”

“I can’t help but smile when I look back at the hand-bound first version from 2009/10. Omar has taken the Report so far, turning it into the excellent presentation we see today. ETH even won the Swiss Ethics Award for it in 2018! “

from 2021 to the future: a message from SSC

We, as SSC, feel highly encouraged by the paradigm shift ETH achieved over a decade ago, in moving from a narrow to a holistic view on sustainability, befitting the global goal of achieving the SDGs. This transition was enabled by strong leadership, efficient structures connecting departments, central units and the executive board as well as a bold belief in the power of clear values.

Today, in 2021, all SDGs remain important. Indeed, the aim of achieving these now infuses the work of ETH at large, bridging generations and disciplines, genders and social backgrounds. In particular cases, communities and units have emerged with focused dedication, such as to *Gender Equality* (SDG5). We are highly grateful for these efforts.

Yet in the face of this past decade's unfulfilled promises of *Climate Action*, we feel SDG 13 now calls for heightened attention. We feel the acuteness of the climate crisis and the necessary dedication to Climate Action is getting lost in the broad message of sustainability. Members of society at large and members of ETH in particular, hear the label 'sustainability' so very frequently that one easily forgets the sombre fact: The countries we live in are not on track for even 2° global warming.

Against this background, we call on the executive board to boldly face this challenge by sending a clear, highly visible message to all its members about the need for immediate climate action and give support for structures that will ensure its long-term implementation. Inspired by the successful courage of ETH in the past, we strongly believe this ***paradigm shift of acceleration towards a net-zero university is possible.***

To demonstrate that we, as students, are willing to work hard for this goal, we have made use of FS21 to initiate discussions in all departments on the topic of reducing emissions. In an effort to showcase the fertile teamwork between students and staff in this regard, we have compiled the stories presented in this magazine. They are intended to highlight the willingness of our departments to become active, but at the same time give honest insight into the struggles and qualms we face. We call on you to take the lead in this team effort – ***cooperation resulting in action*** is our message.

