



Buzzing with life

Biodiversity on campus



App update

Find events easily

The ETH Zurich app provides you with everything you need at ETH: from current news on research and teaching and maps of the buildings on the Zentrum and Hönggerberg campuses, to the menus in the ETH canteens, contact information for all ETH members, and details of events at ETH. Thanks to the latest update, these event details are now even easier to locate. The events calendar has been fully updated, now offering a range of filter options and search functions. You can now add events directly to your own calendar too, as well as share them with others.

www.ethz.ch/eth-app-en →

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Photo: Angelo Brank

ASVZ

Keep fit and take a dip!

Finding the motivation to do sport in the sweltering summer heat can be a real challenge – but it's much easier when the sport involves water! This summer, the ASVZ is offering a range of activities to get your blood pumping while also keeping you cool. From stand up paddle boarding and canoeing to windsurfing and diving, there's watery fun to be had for all. Not to mention, of course, a host of activities on dry land. Let loose with a round of tennis or take in the fresh air on a hike. With so many activities on offer, there's truly something for everyone. Spaces are limited, though, so be sure to sign up now to secure your spot!

www.asvz.ch/en →

Relocation

Optimised occupancy in the Main Building

By the end of 2020, the Vice President for Human Resources and Infrastructure, along with several other organisational units, will relocate to Oerlikon from his area in the Main Building. In the same period, the occupancy of spaces in the Main Building will be optimised for other Executive Board members and administrative departments. The ETH dome will also be converted into a visitor centre, and the Thomas Mann Archive will be rehoused next to the Graphische Sammlung artwork collection. Part of the rapidly growing computer science department will also be making the move to Oerlikon, with a new departmental hub set to be established in the Andreasturm office building.

www.ethz.ch/occupancy-main-building →

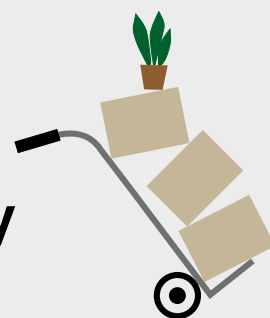


Illustration: gestalten AG

Max Frisch Archive

Angry letters, fan mail and tweets

Hate comments are not just a social media phenomenon. Author Max Frisch also had to sift through his fair share of insults alongside the adoring fan mail. He was, for instance, branded a "hideous poison dwarf" and a "swine". Open until 27 September, the exhibition "Angry Letters, Fan Mail and Tweets – Responses to Max Frisch" in the Max Frisch Archive provides a glimpse into the extensive and varied nature of the correspondence received by the author. www.mfa.ethz.ch/en →



Photo: Max Frisch Archive

Villa Garbald

Switch off in the Val Bregaglia

ETH members can now rent a quiet haven in the Val Bregaglia valley, situated alongside the Villa Garbald seminar centre. The simple and functional Studio Cascina Garbald offers researchers a space for retreats, study and sabbaticals. The Studio, which includes a bedroom, kitchen and living room, also comes complete with a patio in the Cascina garden. The Studio Cascina Garbald has been available to individuals from the academic or cultural sector since May 2019 and can be rented for a period of 2 to 8 weeks at a price of 440 Swiss francs per week. www.garbald.ch/studio-cascina →

Key figure

15,248

On 2 and 3 May 2020, the doors to the SWISS Arena in Kloten will open for the next instalment of the Cybathlon. Tickets for the competition are available to purchase now at ticketcorner.ch. The stadium can accommodate 15,248 visitors over the two days. Get up close to the action in the stadium as people with physical disabilities compete against each other to complete everyday tasks, putting the latest robotic assistive technologies to the test. www.cybathlon.com/tickets →

Executive Board domains

From five to seven

ETH Zurich is expanding and the demands facing the university's management team are growing ever more complex. In order to meet the evolving challenges of leadership and staff development, as well as knowledge transfer and corporate relations, the Executive Board is undergoing expansion in these areas, with the number of Executive Board domains set to increase from five to seven from spring 2020. A Vice President will be appointed to head each of the two new areas. "I very much hope that we can inspire women to take on these new leadership roles," says ETH President Joël Mesot. www.ethz.ch/new-executive-board-domains →



Buzzing with life

The ETH Zurich Zentrum and Höggerberg campuses are not just the study and office spaces of the 30,000 members of ETH: they are also home to a variety of animals and plants. ETH is taking steps to preserve the biodiversity on its sites.

Text Peter Rüegg Illustration Patricia Keller

From the violet meadow sage and the pink sainfoin to the yellow anthyllis and the red poppies: wild flowers in vibrant spring colours light up the path along the south facade of the HCI building. A bumblebee dips into a sage bloom to extract the sweet nectar. The Höggerberg campus is not just a hub of science. It is also home to all manner of animals and plant life, serving as a space for biodiversity within a settlement area.

Biodiversity – that is, the variety of life – is an important issue in today's world. At the start of May this year, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) warned of the accelerated extinction of biological species. An IPBES press release reported that up to one million of a total of eight million species are at risk. In the face of statistics such as this, it is important to consider the biodiversity at the ETH Zurich sites and to think about the steps the university is taking to maintain and promote the variety of species it plays host to.

Biodiversity on the Höggerberg campus

Depending on the time of year, you'll find a whole host of insects with weird and wonderful names while roaming around the ETH campus, such as bush crickets, grasshoppers or southern hawker dragonflies. You'll also find birds, from

house sparrows fighting over crumbs on the main square to wood pigeons with bright white patches on their throats, or the inconspicuous spotted flycatcher hunting insects from the treetops. Red kites and hobbies can also be spotted from time to time wheeling across the sky.

Situated close to forest areas and suitable spawning waters, ETH's Höggerberg campus is also an important habitat for amphibians in the city area. In the spring, alpine newts, common toads and common frogs set out on their travels, with the ponds near the sports hall being one of their favourite haunts. Mammals, too, feel right at home on the campus. Hedgehogs, badgers and foxes have made their homes there, and deer cross over from the Käferberg to the Höggerberg forest.

Dedication pays off

One reason for this variety of species is the fact that the green spaces at ETH Zurich have been ecologically enhanced and maintained for many years. Fritz Graber has been responsible for looking after these areas on the Höggerberg campus for almost 20 years. Together with one member of staff and external gardeners, he cultivates 6 hectares of turf, sports fields and alkaline grassland, as well as 13 hectares of meadowland. This area is not fertilised and is only mowed two

or three times a year to enable biodiversity to thrive. Green area managers at ETH also maintain 1,300 trees on the Höggerberg campus, including ecologically valuable deciduous trees such as oaks. As a reward for its efforts, the Höggerberg campus has twice been recognised as a "nature park of the economy" by the Stiftung Natur & Wirtschaft association for nature and economics.

Graber certainly hasn't been resting on his laurels. At the instigation of Zurich-based green initiative Grün Stadt Zürich, he had a dozen native fruit and nut trees planted around the SeedCity garden. These trees are an important element in ensuring biodiversity.

Special measures had to be taken in order to protect the amphibians. ETH employees covered all shafts on the buildings with finely woven wire mesh or installed escape routes for the animals, saving the lives of hundreds of frogs, toads and newts.

Biodiversity is also being encouraged on the rooftops – the most recent example of this being the roof renovation on the HPM building. The gardeners added pioneer plants to the roof, itself covered in





The **alpine swift** is the hallmark of the ETH Main Building. Outside urban areas, they nest in rock cliffs.

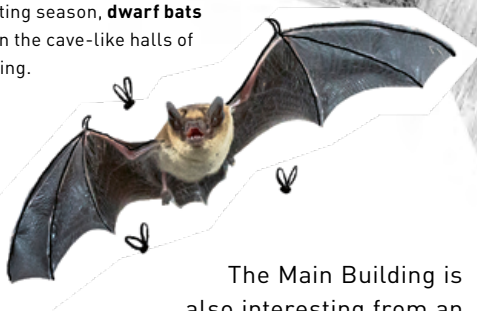
House sparrows like to brood on and in buildings, but they are becoming increasingly uncommon due to soil sealing and glass and steel facades.

During the mating season, **dwarf bats** often get lost in the cave-like halls of the Main Building.

a variety of substrates. These plants are able to withstand dryness and heat. A variety of wild bees and plants which wouldn't otherwise be found on the campus benefit from such low-humus and dry areas.

“Artificial crag” attracts bats

The Zentrum campus also showcases the value of committing to biodiversity. Flowering groves and wild bee hotels have been created in a number of the green areas, with a pocket of land having recently been established at the Haldenbach computer centre. A roadside embankment on the Karl-Schmid-Strasse has also been ecologically enhanced for some time. An array of sumptuous blooms have blossomed at both sites, attracting bumblebees and wild bees.



The Main Building is also interesting from an ecological point of view, serving as a rocky landscape for certain varieties of birds and bats, with cracks and crevices providing the animals with shelter and nesting spaces. Alpine swifts are particularly prominent during the summer period. These swallow-like birds dart around the Main Building where they have their nesting areas, warbling loudly as they go. Their smaller, dark-feathered relative, the common swift, also uses the site as its breeding ground. The Main Building is not necessarily the obvious choice, but modern glass and steel buildings (like

some at ETH) no longer provide birds like swifts and house sparrows with space for nesting.

The Main Building also attracts other flying creatures: 3 of the 15 species of urban bat can be found here. These bats are usually common pipistrelles or Nathusius' pipistrelles, although Kuhl's pipistrelles have also been spotted in the last 20 years or so. They can be seen hunting at twilight over the green areas surrounding the Main Building.

The bats' preference for the “artificial crag” does, however, have a downside: on mild nights, the bats manage to make their way into the building through open

Large insects like **grasshoppers** inhabit the sprawling meadows.



Fox: Five fox families live among the greenery on the Höggerberg.



What you can do to help promote biodiversity:

- Plant more native shrubs, bushes and trees in your own garden
- If possible, turn your lawn into a natural meadow: don't use fertiliser, only cut it two to three times per year and don't mow under bushes to avoid harming any hedgehogs living there
- Set up nesting aids for birds and wild bees
- Avoid using unnecessary exterior lighting and use LED lights instead of lights with a high blue light content
- Create retreats for wild animals in your garden: compost heaps, clumps of branches, stones, small walls
- Remember: Free-roaming cats pose a threat to wild animals living in urban areas, particularly in the spring and summer months when these animals are raising their young
- Don't feed wild animals



The **mazarine blue butterfly** finds plenty of red clover – the preferred host plant for its caterpillars – on campus.

The **red kite** can often be found circling above the campus. It breeds in nearby woodland.



Grass frog: Ponds on the campus serve as spawning grounds for frogs and toads.



Over 70 species of wild bees (pictured: a **long-horned bee**) have settled on campus, thanks to measures like special bee hotels.



Hedgehogs also feel at home on the Hnggerberg campus, where they find good hiding places and food sources.

skylights – but then they often have a hard time getting out again. ETH members later find the animals weak, thirsty and listless. Touching them with bare hands is out of the question, as just a single bite could spread rabies. The best course of action is to call building services or the specialists at the Swiss bat protection foundation.

Preserving biodiversity capital

ETH still has some way to go in its mission to promote biodiversity, for example, in terms of light pollution. A new approach to exterior lighting is currently being implemented at the Hnggerberg campus. The intention is to predominantly use LED lights with minimal blue and AV light content so as not to disrupt the animals' biological clocks. The lights should also only shine downwards in order to prevent light pollution. "The implementation of the lighting concept is yet another piece in the puzzle of finding sustainable ways to maintain biodiversity," says Dominik Brem, Head of the Building Technology and Sustainability specialist unit.

Increasing building activity is a critical problem for the variety of species in urban habitats, as it results in soil being permanently sealed. Urban ecologist Christoph Kffler of the Department of Environmental Systems Science believes ETH must ensure that it integrates ecological qualities into both the planning and architecture phases of construction in order to preserve sufficient biodiversity capital.

"Densification, soil sealing and a lack of shelter and nesting spaces in modern buildings have led to a reduction in the quality of biodiversity, both in the city and on ETH sites," says Kffler. According to Kffler, the Hnggerberg campus has a good starting point for further improvement, with its green environs, old trees and expansive surrounding meadows: "This strong foundation should be better utilised in order to get the most out of it for the wild animals and plant life that call it their home." ■

Doctorate – what's next?

The supervision of doctoral students has long been the subject of intense debate both within and beyond the walls of our university. In January this year, ETH played host to an international symposium on this very subject.

Antonio Togni, Vice Rector for Doctoral Studies, highlights the most significant findings and explains what ETH could do to improve its own doctorate.

Text Franziska Schmid **Photos** Gian Marco Castelberg

Professor Togni, “doctoral studies” has suddenly become the topic on everybody’s lips – why is that exactly?

ETH has offered doctorates since 1909. The university has gained an excellent reputation in the areas of research and teaching, but since then, it has also had to undergo continuous development. I think we’ve now reached a point where the doctorate needs to be adapted to the developments of the 21st century. The world and society are changing at breakneck speed. In my experience, young people nowadays are more ambitious, but they also have greater demands. That’s a good thing, but it can also lead to conflict. That’s why it’s important that we continue to develop the doctorate here at ETH.

At the start of the year, ETH hosted its first international symposium on the supervision of doctoral students. What surprised you most about that event?

The fact that we had over 400 people sign up to take part! The huge level of interest shown by all participants – from doctoral students to professors, as well as administrative staff – highlights the need to communicate with each other and work together to improve the doctorate.

Don’t you think that an international symposium is a very academic way of approaching an ETH-specific concern?

The symposium revealed to us all that the supervision of doctoral students is not just an ETH-specific concern – quite the opposite, in fact! Research is being carried out on this topic all around the world. There are experts who have been grappling with these issues for years, and there’s even a specialist magazine dedicated to the subject. The purpose of a symposium is to exchange ideas and learn from others – and that was exactly what we wanted to achieve in this case, too.

What did you learn from the speakers who were invited?

I was particularly impressed by Anne Lee, who showed us a simple table which can be used to clarify the expectations of both sides. It’s a fairly basic instrument in itself, but it’s something that can be used to effect a great deal of positive change in the relationship between supervisors and doctoral students. Throughout the symposium, we kept coming back to the same point, which made it abundantly clear that the key to success is to consciously and deliberately improve communication.

From what you learned at the symposium, what is ETH currently doing well in terms of the supervision of doctoral students?

We offer an exceptional environment with extremely high standards in terms of quality, infrastructure and remuneration. Around 4,000 people are enrolled as doctoral students at ETH. That’s a big number, and these students make a significant contribution to ETH’s research output. We also have an excellent success rate, with 85 percent of doctoral students completing their doctorate at ETH. On top of all that, we’re working intensively throughout the university to improve the supervision we provide to our doctoral students, perhaps even more so than other institutions. That gives us an edge that we can quickly develop further.

“The aim is to introduce our doctoral students to the culture at ETH and to prepare them for life in their new surroundings.”

Antonio Togni, Vice Rector for Doctoral Studies

And where might there be room for improvement?

For me, it’s clear that we can make significant improvements in terms of the communication between our doctoral students and their supervisors. That would need to happen right from the get-go: and by that I mean already when selecting new doctoral candidates. We also need to work on developing the availability and approachability of staff, for example, by working more with tutors. Last but not least, the doctoral students need to have a better understanding of their rights and obligations, as well as where they can get support.

Have you already taken any concrete measures to achieve these goals?

Yes, we have. We’ve decided to design an introductory course for our new doctoral students. In fact, we’ve just created a new post within the Doctoral Administration team for this very purpose. The aim is to introduce our doctoral students to the culture at ETH and to prepare them for life in their new surroundings.

Will there also be an introductory course for new professors?

That’s the plan! Of course, it also makes sense for supervisors to be introduced to the ETH culture and receive more training

on how best to structure a doctorate and what it's all about. We'd like to work out guidelines for this which we can then share with everyone.

What will you do with the findings from the symposium?

We've prepared a paper on the further development of the doctorate which incorporates the findings from the symposium. We're currently in the process of evaluating the feedback from the consultation. The goal is then to amend the doctoral regulations as soon as possible and close up some of the gaps in the current regulations.

Which gaps are those?

To give one example, we need to strengthen the research plan as a tool. The plan isn't just a formality; it is in fact a brilliant way to clarify common goals, crucial steps and the responsibilities of each individual. That's why I would say we need to make research plans more binding. We suggest, for instance, that students defend their research plans at a colloquium after one year – and that the definitive admissions decision only comes afterwards.

How does the dual supervision of doctoral students work?

That's also an extremely important point. We've already implemented this in part, but the specific goal is that all doctoral students at ETH should work with two supervisors. This kind of dual supervision system will do more than simply reduce dependency: it will also encourage interaction and increase diversity.

Could changing the doctoral regulation cause the doctorate to become "overregulated"?

I completely understand why that might be a concern, but I can guarantee that that won't be the case. Ultimately, the proposed changes are sensible adjustments to the existing doctoral regulation, or perhaps supplements if necessary. That's also why we're working so closely with the departments: we want to know what their needs are, and we also want to show them how everyone can benefit when individual aspects are clarified and institutionalised.

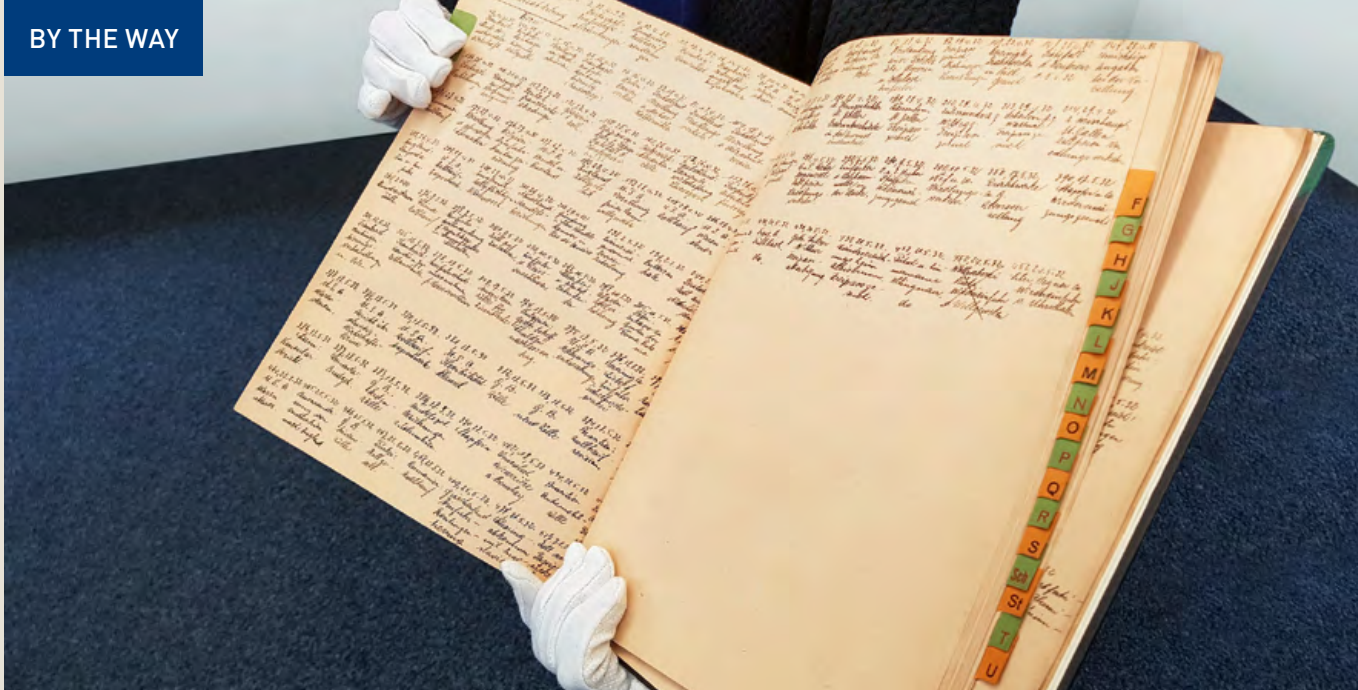
What would your ideal doctorate of the future look like?

Carefully selected and highly motivated doctoral students exchanging ideas as part of small, well-integrated research groups. The students have intensive contact with their supervisors, as well as with researchers from other disciplines and universities. They're satisfied, but also independent and critical, meaning there are lots of doors open to them in terms of how they can shape their future careers, be it in the private sector or the world of academia. Sounds good, doesn't it? ■ www.ethz.ch/en/doctorate →



“A dual supervision system will do more than simply reduce dependency: it will also encourage interaction and increase diversity.”

Antonio Togni, Vice Rector for Doctoral Studies



The Swiss business federation recorded its outgoing political correspondences in a so-called "missives book".

Uncovering the secrets of ETH

There is much to explore at ETH Zurich. A variety of offerings allow visitors to delve deeper into the university and catch a glimpse of its treasures.

Text Rebecca Lehmann **Photo** Published with permission

A research assistant dons a pair of white gloves before taking the heavy book in her hands and making her way along the rows of chairs. Eighty-two handwritten entries are lined up in neat formation on the page. They represent the outgoing letters from the Swiss business federation Vorort, now *economiesuisse*, to the trade section of what is now the Federal Department of Economic Affairs, Education and Research; broken down, there were two correspondences per day over the course of a month and a half in 1932. "Analysing the networks cultivated by these associations during the period of crisis is absolutely fascinating," says Daniel Nerlich, Deputy Head of the Archives of Contemporary History. In an hour-long session, Nerlich is providing visitors with a behind-the-scenes look at the archive's collections.

Dialogue with the public

The event is part of a series of public tours of the treasures housed amongst the collections, archives, buildings and institutes at ETH. The tours are held every Tuesday evening, with attendance open to everyone. These events are jointly coordinated by the Visitor and Information Management section of the Services department and the ETH Library. "By hosting events like this, we want to open up ETH and engage in dialogue with the public," explains project manager Roland Jaggi.

Alongside the public tours, individual group tours can also be organised. Students take the groups around the Hönggerberg and Zentrum campuses, recounting facts, figures and

anecdotes from their daily lives at ETH. In the past year, these tours have given around 5,000 visitors a sneak peek into the hidden world of ETH. "Our visitors are all very different," says Jaggi, ranging from upper secondary school pupils or staff members on corporate team days, right through to senior citizens celebrating their birthdays. What they all share, though, is an interest in ETH or the research being conducted here.

New themed tours

A variety of tours revolving around a specific topic are also on offer, such as Ötzi and Mona Lisa or Switzerland and the Bauhaus movement. From autumn this year, a series of new themed tours will shine a spotlight on the architecture of the ETH buildings on the Zentrum campus, while an expedition and research trail especially for children will encourage a new generation of explorers.

This evening's event at the Archives of Contemporary History is also a chance for the very people who brought the files to the archive to learn something new about their discovery. "While moving offices, we came across some documents that looked like they could be valuable in some way," explains a member of staff at the business federation *economiesuisse* in attendance at tonight's talk. They had handed the documents over to the specialists and are now keen to find out what gems Nerlich and his team have been able to mine from them. ■

www.ethz.ch/tours-en →

Personal initiative is required

ETH supports its staff in their personal and professional development, offering a variety of opportunities for continuing education. *life* takes a look at what's on offer and highlights the key points when it comes to future staff development.

Text Karin Köchle **Photos** Alessandro Della Bella

How can I interrupt someone at a meeting who is speaking for too long? And what sorts of things do I need to think about when I'm moderating a discussion? Ahmet Demirörs hopes that the Facilitating Meetings and Workshops course will provide him with answers to these questions. Demirörs, senior assistant at the Department of Materials, is one of nine participants in an internationally

diverse group meeting held on a June morning at the School for Continuing Education. ETH's aim in offering the course is to provide researchers and those managing scientific projects with the skills they need to moderate meetings and workshops. The course is run by Ruth Förster, who worked in the ETH Domain for 15 years and is now an independent trainer and coach.

The meetings and workshops course is just one example of the diverse range of training opportunities available to ETH staff to support them in their personal, professional and methodological development. Alongside the HR department, many other internal units are also offering further training courses. The HR courses cover topics ranging from leadership, career planning and presentation techniques right through to project management and coping with stress. The format of the training is as varied as the content, with some sessions taking the form of short afternoon events or half-day workshops, while leadership courses can spread over several days. ETH also supports external training opportunities.

The Personnel and Organisational Development team is responsible for the content and coordination of the courses. The design of the programme is based on the HR strategy, but is also demand-led – some topics, for example, grow from the results of employee surveys. Many of the courses are in demand, but it is important to adapt the format regularly to participants' needs, as well as to introduce new methods from time to time. For example, elements of improvisational theatre were



Trainer Ruth Förster explains the course programme and compares it with participants' expectations.



Ahmet Demirörs from the Department of Materials in discussion with a fellow course participant. He's hoping the course will give him some pointers on moderating panel discussions.

incorporated into a pilot conducted with an eye to redesigning the course on leading goal-oriented discussions with managers.

Learning by doing

In most cases, the courses are open to all employees. The goal is to appeal to both technical and administrative staff as well as academic employees, which is why a greater number of courses are being offered in English.

The Facilitating Meetings and Workshops course is one of those being conducted in English. By now, the ice in this diverse group has been well and truly broken; the participants know each other well and there is a shared sense of trust between them – doubtlessly aided by the “inside-outside circle” method the group learned this morning. The participants form an inner and an outer circle so that they are facing each other and interact with different people by one circle moving in a given direction. After the lunch break, one participant will have the chance to implement the method herself. Participants are able to put their newly acquired skills to use and receive direct feedback throughout the entire day, providing an interesting mix of theory and practice.

Using and adding to your own knowledge every day is important for personal development. The way people think about courses can be quite outdated, says Eric Ryf from the Personnel and Organisational Development at ETH. “You don’t learn simply by attending a course. The most important thing is how you can directly implement what you’ve learned. That’s why we often work with typical examples from a workday during our seminars.” In terms of personal development, it is important to keep asking yourself whether what you are doing satisfies your curiosity and matches your skills and how you can develop further. ETH wants to encourage personal initiative from staff while also supporting managers in their roles as employee developers.

Leadership and coaching culture

Leadership training is well established at ETH. “The most valuable thing for me was discovering my own leadership weaknesses as part of the group and then getting specific tools to overcome them,” says Andreas Fichtner, Professor at the Institute of Geophysics, who took part in the eight-day leadership course last year. Until now, only a handful of professors

have been among the participants. But that’s all set to change: this year will see the launch of a series of leadership events for current professors, with training opportunities already in the pipeline for new professors.

Establishing a strong coaching culture is also key to staff development. Management staff should receive more opportunities to work together with a personal coach. “Getting coaching isn’t a sign of weakness. A coach doesn’t solve the problem for me, but helps me to overcome my challenges independently,” says Martin Ghisletti, Head of Personnel and Organisational Development. Last but not least, leadership for those who do not hold a position of responsibility is also an important subject. In the new seminar on lateral leadership, project leaders discover how they can extend their sphere of influence even if they don’t have managerial authority.

Being able to influence others in a targeted manner is also an important skill when leading meetings. “Good preparation is also key, as is setting yourself achievable learning goals for each session and collecting feedback,” says Förster, summarising some of the learning outcomes from the course. Possible solutions to Demirörs’ question on how to interrupt overeager meeting participants were also worked through as part of a brainstorming session – for example, by bringing in another member of the meeting. “I learned a number of ways I can react in situations like this. I might not get it quite right the first time, but I’ll give it a go and keep practising!” ■

www.ethz.ch/leadership-and-development →

Anna Bischofberger

Doctoral student at the Department of Environmental Systems Science (D-USYS) and author

“Every text is like an experiment”

Text Anna Maltsev **Photo** Florian Bachmann

“I write so that I can get the story out of my head,” says Anna Stern, whose real name is Anna Bischofberger. It all started with a short story she gave to a teacher as a Secret Santa present nine years ago. Her first novel developed from that story. Since then, she has added a further three to her portfolio.

The subjects of the stories are as diverse as Anna’s own interests: before embarking on an environmental sciences programme at ETH, she focused on German and Scandinavian studies at the University of Zurich, where she also considered trying her hand in the realm of astronomy. It was from her love of stars that her pen name was born, “Stern” being the German word for “star”. “I’m either Bischofberger or Stern depending whether I’m in the lab or on a book tour.”

Different as the names may be, the two passions underlying them are intricately connected. “Research and writing share a lot in common,” says the 28-year-old, who has been studying for a doctorate in the area of antibiotic resistance at ETH since 2018. “Every text is like an experiment: you take something which already exists and create something new from it.”

Anna has both her doctoral supervisor, who offered her a part-time (80 percent) workload, as well as her own character to thank for the fact that she is able to pursue such a busy schedule: “My life is mainly made up of research, writing and reading. I wouldn’t want it any other way,” says Anna. “I’m also extremely curious, and I get bored quickly.”

To keep boredom at bay, Anna is always conjuring up stories, be it from an overheard snippet of conversation, an inspiring encounter or even after reading through her own work: “In my second novel we encounter a policeman with a complicated relationship, but he’s only a small part of the narrative. I couldn’t stop thinking about what that relationship might look like.” From there grew her latest book, *Wild wie die Wellen des Meeres* (“Wild as the Waves of the Sea”), which was published in January 2019. ■

Detlef Günther
Vice President for Research
and Corporate Relations



Illustration: Kornel Stadler

Animal experiments are still indispensable

In March 2019, a popular initiative was submitted for a general ban on animal testing in Switzerland. The initiators deny that such tests have any value and even go as far as to say that animal testing constitutes a criminal act.

As the person responsible for research at ETH Zurich, I wanted to address this issue head-on. In recent decades, medical research has experienced significant success around the world thanks to animal testing. The CRISPR/Cas method has provided new opportunities for therapies which until recently were scarcely imaginable. For example, ETH and the Children's Hospital Zurich successfully used this method's targeted "molecular scissors" to correct gene mutations in mice, thereby curing their phenylketonuria – an inherited metabolic disorder which can also affect humans.

Quite rightly, our researchers must fulfil strict criteria and carefully explain whether the anticipated gain in knowledge justifies the use of animal testing.

I see again and again how conscientiously our researchers go about their work when it comes to this sensitive issue. But we recognise that this alone is not enough. We have invested considerable resources in implementing the principles of *replacement*, *reduction* and *refinement* (the 3 Rs). This means that we replace animal testing wherever possible with other methods, reduce the number of animals used, and minimise the suffering they experience. This can also be seen in the research projects supported at ETH: between 2014 and 2018, we provided ETH grants for

37 projects involving animal testing – and 23 of them take the 3 Rs into account in their research.

The upcoming vote will put experimental research on animals under public scrutiny. This is why we think it is important to actively present our evidence-based knowledge to society, and to engage in an open and objective dialogue. We have also updated and expanded the ETH website on the subject of animal testing with this goal in mind. The website provides information on the topic for the general public, as well as details on the framework conditions for researchers within this challenging area.

An outcome in favour of the ban would have grave consequences for biomedical research in Switzerland, endangering both our current and future progress in developing treatments for a variety of illnesses. The best course of action, both for ETH and all other research institutions in Switzerland, is neither a blanket ban nor a free pass when it comes to animal testing, but instead a conscious, considered and cautious approach. ■

Detlef Günther

About Detlef Günther

Detlef Günther is Vice President for Research and Corporate Relations at ETH Zurich.

www.ethz.ch/animal-experiments →

VSETH survey

Making things #evenBETHer for our students

The Association of Students at ETH (VSETH) has spared no effort in finding out how things are going for students at our university. I'd like to extend a huge thank you to those responsible for conducting the extensive #howETHgoing? survey!

I was certainly relieved when I saw the first set of results, as the survey revealed that ETH does not have a systemic problem when it comes to sexual harassment or bullying. However, this does not mean that we can now simply sit back and take things easy: every person who experiences any form of discrimination at ETH is one person too many. The fact that one fifth of non-German-speaking students have been subject to discrimination, for example, is something that should give us all cause for concern.

As many as a quarter of students also consider the workload at the university to be inappropriate. This is a problem we have been aware of for quite some time, which is why we are working to provide students with more freedom when we review curricula. The revision of the Bachelor's programme in materials science is a prime example of our efforts in this area. Changes like this, however, do not happen overnight.

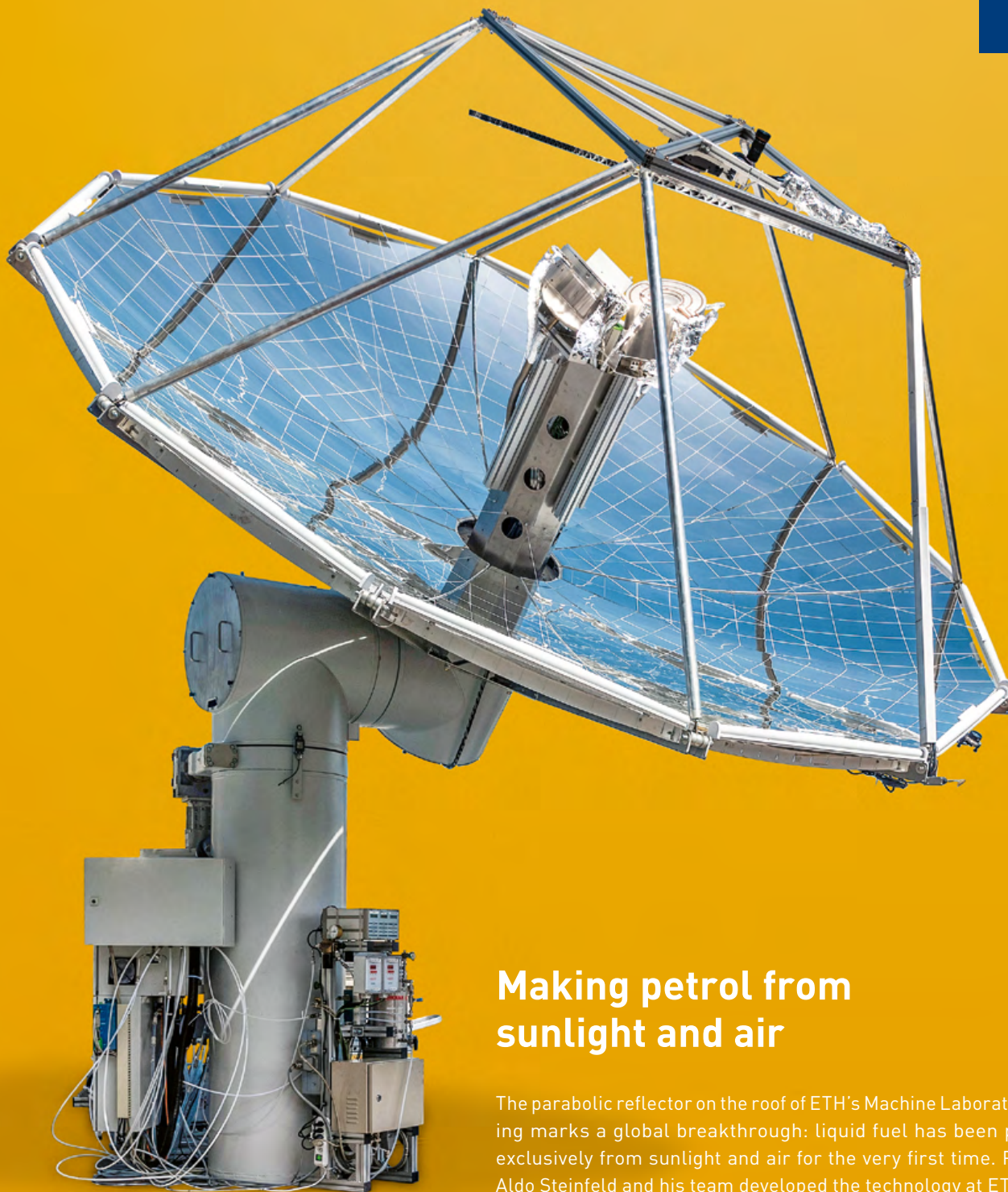
The survey also shone a spotlight on students' mental health. Support services such as the Psychological Counseling Service play an essential role in this regard, and we will be making substantial extensions to these services this year.

In order to derive concrete measures from the survey, we will be working together with VSETH over the coming weeks to evaluate the results in more detail, so we can make sure that we're making things #evenBETHer for our students in the future.



Sarah Springman, Rector of ETH

www.ethz.ch/vseth-survey →



Making petrol from sunlight and air

The parabolic reflector on the roof of ETH's Machine Laboratory building marks a global breakthrough: liquid fuel has been produced exclusively from sunlight and air for the very first time. Professor Aldo Steinfeld and his team developed the technology at ETH Zurich. The mini-refinery filters CO₂ and water from the air, generates syngas from these substances in the solar reactor, and then liquefies it into methanol. It would also be possible to produce kerosene, petrol or other liquid fuels. The fuel produced from this process is CO₂ neutral, because the burning process releases the same amount of CO₂ that was extracted from the air during production. (Photo: Alessandro Della Bella) www.ethz.ch/solar-mini-refinery →