

Ext. temperature: 46°
Int. temperature: 25°
17:19 sunset
6:19 sunrise

ETH Today

*Everything you always wanted to know about ETH Zurich (*but were afraid to ask)*

Monday
24.09.2040
Issue number 145

Swarm discussions with Marvin

Our new President will co-lead with our Employee opinion aggregator bot, 'Marvin', who draws from our swarm discussion and votes.

Page 6

Drosophila has arrived

The D-USYS sailboat «Drosophila» has safely anchored in the new harbor of Utrecht and will return to Zurich with 215 exchange students soon. Read about their journey of navigating through hurricane «Xenia». Page 8

Weekly weather forecast

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Ext. 46° 29° Int. 29°	Ext. 44° 27° Int. 27°	Ext. 46° 29° Int. 29°	Ext. 44° 27° Int. 27°	Ext. 46° 29° Int. 29°	Ext. 44° 27° Int. 27°	Ext. 46° 29° Int. 29°

ETH goes fossil fuel-free



New ETH refinery in Ettenhausen

ETH's refinery in Ettenhausen has successfully produced its first bulk load of solvents at reactant-level purity from regionally sourced hemp oil. This completes the final step of ETHs Zero Fossil Strategy by removing the last fossil carbon from our supply chain. Page 3

New media

Interview with Farah Shariq: 'Olfactory printers might hold the key'



The ETH startup OSMOsensorium recently launched the world's first olfactory printer OP.1 and ever since, there have been heated debates about the invention's potential for medical research. Despite unanswered questions, the Institute for Medical Research has expressed interest in buying the production rights for the printer – and CEO Farah Shariq explains why. Page 7

Events



Polyball 2040

For its 160th edition, Polyball invites you to relive the mysterious yet exciting year of 2020. Go back to the beginning of the pandemic decades with your best rolled-up jeans, white sneakers and surgical masks. The guests can expect old school smartphones available at the entrance, vintage VR glasses and everything from sea shanty singing to sit-ins with climate protest signs. November 9. Page 13

Technology

One-millionth Verifiable Credential



ETH issued its one-millionth Verifiable Credential to a learner who successfully completed a course on Regenerative Building Materials. "We would love to shake hands with the learner," says Dr. Petra Widmer. "But of course we don't know who they are." The landscape of administrative computing certainly changed when ETH introduced credentialing based on self-sovereign identities. "I remember the day when our central database was held ransom and we just told them to get lost," reminisces Dr. Widmer. "We swiped the disks, replicated the public ledger, and went to lunch." Page 6

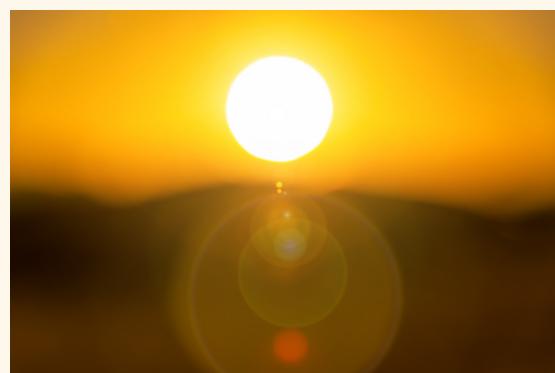
Breakthrough by student-led team



dents from seven programs coded a model predicting the heat- and UV-resistance of the new SARS-CoV4 virus. Dr. Sara Ny explains: "Using the virtual ETH EduVerse, 500+ students worked together with researchers at ETH to build this model. It has already resulted in five bot-reviewed publications." ■

During the interdisciplinary course "Creative problem-solving" (part of the research-based learning track introduced after the Bologna 2.0 reform), stu-

Circadian rhythm to be on summer mode for 7 more days



Contrary to previous forecasts, the heat dome over Europe will stay parked for at least seven more days. ETH will thus postpone the biannual adjustment of the circadian rhythm from night lectures back to day lectures by seven days. This applies to both virtual and in-presence lectures,

but note that it is business as usual concerning the overall semester-structure. As the high-pressure area persists longer every year, the chances of heat domes in winter season are rising and talks about an adjustment of the circadian rhythm three times a year are getting louder. ■

Are you experiencing circadian depression? You are not alone. Connect with HEST StaySafe therapy AIs!

First 10-year assessment of SEFG



At the annual meeting of the Council for Sustainable Presents and Futures (CSPF), formerly known as the UN General Assembly, the Intergenerational Referee Group (IGRG) presented its first 10-year assessment of the Social and Environmental Fairness

Goals (SEFG) – the successor framework to the already ambitious SDGs of the 2030 Agenda. ETH Zurich representative Sasha Galiere reports of a new era of understanding and describes the vibes and (e)motions of high-level policy making. ■

D-ARCH, D-BIOL and D-MEDIA tropical garden extension



The foliage cover provided by tropical flora on all ETH buildings will be increased by another 20% and is predicted to lead to further reduction of inside temperature by

0.5 °C. See the 3-D model of the cooperation project between D-ARCH, D-BIOL and D-MEDIA. ■

Short updates

1/ Beyond accessibility: Retinal implants back with an update, including controversial immersive features, rendering AR and VR lenses obsolete.

2/ Switzerland-Norway CO₂ pipeline operational again: 'It was the most demanding detective engineering project I've ever been entrusted with,' says Dr. Andrea Ozone from D-BAUG.

3/ Updates: Please update your library crawler before the end of this month. This is a major update including 7.35 million falsified papers flagged as such. You may no longer cite their results as evidence going forward.

4/ Siesta-Capsule: ETH increased the number of air-conditioned sleep capsules to a total of 5,000. Please use one of the XR blackboards to reserve your spot (no remote reservations).

5/ Kind reminder: From next semester onwards, all pre-2030 legacy software, including 3D virtualized Power Point (!) won't be supported on the ETH main network anymore.

6/ Announcement: New sponsored D-INFK bachelor's degree in Quantum Cryptography in collaboration with Aperture Science Inc. starts in SS41. Applications now open.

Mensa: Menu of the week

Monday	Cricket-flour burger, Zurich sweet potatoes, hydroponics salad	Couscous & vacuum-packed cold-cooked aubergines
Tuesday	Seaweed rösti with thousand Swiss spices, butter rabbit	Pumpkin soup powder, black bread capsules
Wednesday	Encapsulated Zurich lamb, spinach, lentils	Green pea capsules and seaweed croquettes
Thursday	Mealworms, golden rice, buttered carrots	Rose pudding, parsnip flavor powder
Friday	Green grass and wheat ratatouille, in-vitro beef	Green grass and wheat ratatouille, lentil burger

Editors: Jeanine Reutemann, Judith Rehman, Carlo Picaso, Estelle Gattlen

Guest Editors: Gerd Kortemeyer, Philip Barth, Claudia Zingerli, Karin Brown

Illustrations by Estelle Gattlen, Carlo Picaso

A collective contribution of the LET EduTeam to the 2040 Essay Contest organized by ETH

Internal communication

■ 'We talked for two hours after the Quantum Field Theory Seminar by Prof. Suleimen last Tuesday. You were a bunny avatar. I was a badger. Were we flirting? Please contact me via QR code.'



■ 'Lost in translation: live-translation lenses, somewhere in the Mensa. Contact @Schroedingercat1789 if found please.'

Picture of the week



Flooded church in Geamana, Romania, picture by Carline Rehren, D-MAVT student

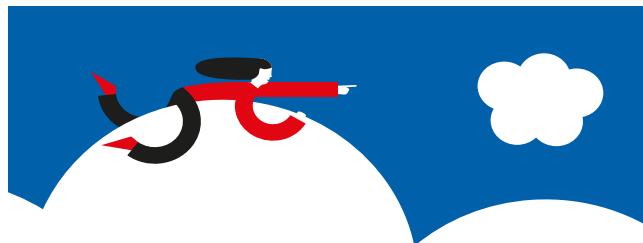
2040 Essay Contest: Hybrid

ETH Today – *Foresight*

A collective journey to the year 2040

During the 2022 spring semester, the Strategic Foresight Hub (SFH) of ETH Zurich invited the ETH community on a journey to the year 2040 for the second time. This year's 2040 Essay Contest encouraged the ETH community to imagine and describe everyday life at a hybrid university in 2040. The contribution ETH Today was selected as public winner, and the SFH team selected the essay by Linda Grob and published it as a booklet.

We invite you on this little journey and hope to give you playful insights into how Foresight can be used to inspire, reflect and think creatively.



ETH Zurich's Strategic Foresight Hub

ETH Zurich has established the Strategic Foresight Hub based within the Office of the President to deep-dive into the intriguing territory of long-term trends and plausible futures. The Hub's core mission is to advance a deeper and more profound understanding of how the university, our society and the world at large could evolve in the future. The intent is to look beyond the obvious.

The Strategic Foresight Hub provides the space, guidance, tools and methodologies to all those interested in engaging with "what could be". The power of strategic foresight lies in its ability to engage a wide range of stakeholders in a creative and non-partisan manner to facilitate new, refreshing perspectives concerning future developments of relevance. The team helps others to reflect upon the implications that various future contexts might carry.

Strategic Foresight

In times of increasingly rapid change, growing complexity and critical uncertainty, responsible governance requires preparing for the unexpected.

Strategic Foresight is required whenever there is a high degree of uncertainty surrounding changes to the future context in question.

Foresight uses a range of methodologies, such as scanning the horizon for emerging changes, analyzing megatrends and developing multiple scenarios, to reveal and discuss useful ideas about the future.¹

¹ <https://www.oecd.org/strategic-foresight/whatisforesight/>



Foresight Lens I: STEEP Framework

What are the underlying assumptions of this article?

In what kind of a world do we find ourselves in this article?

What assumptions are made about the year 2040?

How is it different from the world we live in today?

Which assumptions are plausible? Which ones are not?

Which ones are desirable? Which ones are not?

Which ideas are surprising? And which ones are not?

Which ideas might not evolve as described in the story, yet inspire us when thinking about what could be?

Where do we see trends going in the direction described in the article?

STEEP analysis is a useful framework for considering social, technological, economic, ecological/environmental, and political dimensions.

Other similar frameworks incorporate considerations such as legal, ethical and demographic (STEEPLED) or regulatory factors (STEER).²

S	T	Ec	En	P
Sailboat for exchange students <small>social</small>	Trans-disciplinary programs <small>technological</small>	Employee opinion aggregator Bots at ETH <small>technological</small>	Bots review publications <small>technological</small>	Retinal implants <small>technological</small>
Circadian depression due to night lectures <small>environmental</small>	Students meet as anonymous avatars <small>technological</small>	AI Therapy for mental challenges <small>technological</small>	air-conditioned relax capsules <small>environmental</small>	Edible paper <small>environmental, technological</small>
"Pandemic Decade?" as Polyball theme (with masks & smartphones) <small>political</small>	EduVerse as education platform <small>technological</small>	Library crawler that detects fake papers <small>technological</small>	Credential based on self-sovereign identity <small>technological</small>	Olfactory printers <small>environmental, technological</small>

Heat Domes <small>environmental</small>	Floods <small>environmental</small>	Indoor - outdoor temperature indication <small>environmental, technological</small>	Council for Sustainable Presents and Futures <small>political</small>	Bologna Reform 2.0 <small>political</small>
ETH Zurich is fossil fuel free <small>environmental, political</small>	Insects, worms, seaweed, bread capsules etc. for lunch <small>environmental</small>	University involved in policy making <small>political</small>	Corona virus continues <small>environmental, political</small>	CEFG: Social & environmental fairness goals <small>environmental, political</small>

Image: STEEP Analysis of the ETH Today article.

What initially looks like a fun story can be analyzed using the STEEP framework.

We examine the text in depth for underlying assumptions. These assumptions are then sorted into social, technological, economic, environmental and/or political categories and serve as a springboard for discussions about possible future developments.

More often than not, assumptions can be assigned to more than just one area. We live in a complex world where the domains are interconnected and influence each other.

In the analysis above, the assumptions underpinning the story have been assigned to one main areas as well as to others using color tags. Depending on your perspective, you might assign the assumptions to another main area or formulate them entirely differently. This analysis is not set in stone but rather serves as a starting point for a nuanced discussion.



Foresight Lens II: Backcasting

What is the bridge from the future described in the article to today?

What are the necessary changes for the described world in the essay to come true? Trying to build one big bridge that explains and reconstructs everything can be pretty overwhelming. The STEEP analysis helps us to approach this task systematically. We can build several small bridges, focusing on one of the changes described in the story at a time.

Where do you find it easy to build a bridge to the future in the essay? Where is the foundation for a change already laid in the present? Which changes seem like a big jump?

Backcasting starts with a description of a desirable future and then works backwards to identify major events and decisions that generated that future, allowing organizations to consider what actions, policies and programs are needed today that will connect the future to the present.³

There is not just a single way to get from the future to today. There are many, depending on where you start and the assumptions you make along the way. Building these bridges helps us to formulate specific questions about the future that we can then discuss with experts. This approach forces us to think step-by-step about all that is required for a change to occur. By thinking in small steps, we might encounter an inspiring idea that we would not have thought about otherwise. Backcasting also enables us to assess whether certain developments are plausible and if we can already see trends pointing in that direction.

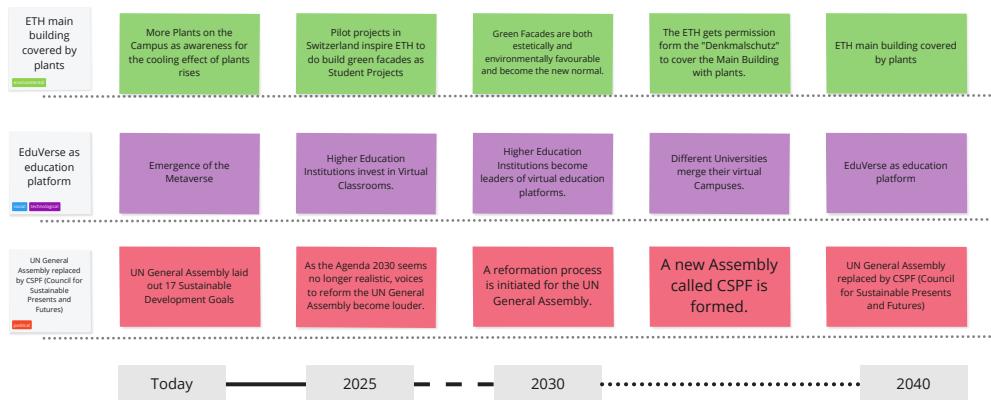


Image: Backcasting for three underlying assumptions in the article.

² Foresight The Manual, p. 21, 2014, UNDP Global Centre for Public Service Excellence

³ Foresight The Manual, p. 15, 2014, UNDP Global Centre for Public Service Excellence

What is your vision for the year 2040?

What about this story inspired you? Could you imagine living in the world that is described?
What kind of world would you like to live in?

Travel to 2040!

Depending on your age, think back to a day 5, 10 or even 20 years ago. Where were you back then? What was your daily routine like? How did you communicate with your friends? How long did a trip to New York take? Did you always carry your phone charger around with you? What would you find in your pocket? Did you read the news every hour?

What about today? What does your routine look like? What is in your pocket? How do you travel? Where do you go? What do you assume you can 'normally' do in your daily life? How likely is this going to change? What if it does?

Get in touch and share your vision with us. Join our Friends of Foresight Community and create futures.

Contact: foresight@ethz.ch

Learn more about
Foresight methods in our
Foresight Coffees



SFH

2040 Essay Contest: Hybrid

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Concept & Design: Strategic Foresight Hub, 2022

