



### Your role as tutors

#### SUPPORT

If you need support with the team process or if it is unclear how you can assist the teams for a specific task, you may talk to one of the trainers or organisers directly. We will regularly be present in the team spaces or the ETH Week Hall. If you cannot find us and it is urgent, contact the Info Desk. In addition, the LET organises formal and casual debriefing from Monday to Thursday. You can also join us at the tutors and staff table on Tuesday and Thursday to exchange with us informally.

#### EMERGENCIES

In case of an emergency, inform the Info Desk directly or call the ETH Week hotline (+41 44 633 99 10). In case of urgent emergencies, call the Emergency desk of ETH Zurich (+41 44 342 11 88). They will transfer your call to the ambulance (144), police (117), or fire brigade (118). Please immediately inform the Info Desk afterwards.

#### LEGEND

#### 

Dedicated team process time slot designed by tutors.

Relates to one of the four design thinking phases.

### **::**

45

Team works as a whole.

Team splits up in sub-teams.

Students work in pairs.

Students work individually.

Engaging ETH students in interdisciplinary group work is at the very core of ETH Week. One tutor guides one team through the whole week. As these students only meet at the beginning of the week, they do not know each other beforehand. They also come with a backpack of different backgrounds, experiences and knowledge. All have different attitudes and personalities, maybe even different cultures.

To work together in such a team and under time pressure is challenging. Your role is to facilitate the team process so that they learn to deal with each other, to take decisions together and eventually become really productive, share tasks, coordinate and produce a presentation by Friday afternoon.

Your role might change depending on the task at hand. Sometimes you will only observe or keep the time. Sometimes you might need to moderate a discussion and help them focus on a taking a decision or have them reflect and ask 'why?' until the team finds a clear answer they can build upon.

There is one rule you need to stick to:

You are neither responsible for the content of the projects nor for the outcome.

This includes that you should not take content decisions for them, even if you know better. ETH Week is also not a competition between tutors.

Instead, you are responsible for the process and your central task is to encourage self-directed learning.

There are three different kinds of time slots during the week.

- Tutors have the lead. These are the three milestone time slots that you prepare together with the trainers during the online phase of the tutor training: Team-building (Sunday), Check in (Daily), Wrap up (Friday).
- 2. Tutors facilitate the team process. These are most time slots, especially during Sunday, Monday, Tuesday and Friday.
- Tutors facilitate the team process together with the design thinking facilitators. These are the time slots on Wednesday and Thursday.

For all time slots, it is your responsibility to know the tasks at hand and understand what the learning outcomes (goals) are. Students will rely on you to clarify what it is they need to do and how it links to the rest of the week and their presentation on Friday.

This script will give you a solid basis for that responsibility. Each spread explains one half-day in detail, from the moment the students leave the plenum and start the team process until the moment where you hand them back off to us. During most slots, you have a certain flexibility in the procedure as you might have to adapt to the needs of your team.



Plenum sessions

Team work

Refresher tutor training

TUTOR MEETINGS

friday sept 16		
Ы		
com	municate	
7.20	Sports	
8.30	Kick-off	
9.00	Polish the presentation.	
l	Rehearse.	
13.00	Lunch	
14.15	OPENING FINAL PRESENTATIONS Sarah Springman	
14.30	FINAL PRESENTATIONS 18 teams present.	
17.00	Wrap up.	
18.30	CLOSING CEREMONY Awards, dinner and time to celebrate.	

LUNCH LECTURE SERIES

**AFTER HOURS PROGRAM** 

### **\** The brief and your tasks

### N Your role as tutors

Instead of handing the students a problem to solve, we ask them to define their own challenge, to frame a problem that they identify within the topic of 'challenging water'. They will go through a process, where every step of the way helps them find answers to the following three quesions, that we call the brief.

- 1. Define a problem statement that describes the challenge you want to address. It needs to be linked to a Swiss actor and to one of the 5 key topics of ETH Week.
- 2. Tell an inspirational story that explains where your ideas come from, why your problem statement is relevant and how a possible solution could look like.
- 3. Critically reflect your ideas by answering the following questions:

#### SCIENTIFIC RIGOR

- What are your underlying assumptions?
- What facts and figures did you rely on?

#### FEASIBILITY

- How feasible is your solution?
- Are there uncertainties related to your solution that would need further clarification?

#### SYSTEMS THINKING

- How is the problem embedded in the ecological, societal and economical context?
- What are the implications and tradeoffs of your solution?

We will refer regularly to the brief throughout the week. The students will also receive feedback regarding the three points of the brief. The workbooks will be a valuable tool for the students to understand their tasks and reflect them.

As tutors, your tasks include:

- 1. Assist the teams in their self-directed learning process and facilitate the team process so that students work well together.
- 2. Design and lead through the milestone time-slots: Team-building, Check in, Wrap up. Make sure that your ideas on how to design these slots are uploaded and discussed on Moodle before ETH Week starts.
- 3. Lead the students through their daily tasks and support them in time management. Clarify the tasks at hand and how they link to the whole week.
- 4. Moderate group discussions and provide feedback to stimulate the team members' reflection of the process.
- 5. Make sure students document their ideas and discussions in the team space and transfer the essence every evening to the Process walls.
- 6. Assist and work together with the design thinking facilitators on Wednesday and Thursday. Their responsibility is to steer the pace of the creative process and help the teams take decisions in the right order.
- 7. If students approach you with questions you cannot answer, relay them to the trainers during the debriefings, ad-hoc or at the tutor team table.
- 8. Remind students of the logistics of the week and help us provide students with well-organised events. Act as a coordinator during the excursions on Monday.
- 9. Cooperate with the organisers of ETH Week. Be our 'eyes and ears' so that we can improve or adapt, as we go along or in the future.
- 10. Contact the Info Desk in case of an emergency or if you need support during team work.

At the end of each day, every team fills in a template. Using this tool, the students document their progress and their preliminary results. When they are finished working, they hang the template on their Process wall in the ETH Week Hall where it remains until the end of the week. In this way, experts who are part of ETH Week are able to understand what students are currently working on. It also emphasises how a constructive and iterative process is the main goal of ETH Week.

By making the different building stones visible, we hope to encourage spontaneous discussions between experts and students but also between students of different teams, so that ideas can build on each other. The templates, together with the final prototypes will be part of the exhibition on Friday evening. We also hope that they will be a useful tool during the feedback sessions on Thursday and for the Jury.

The tutors and the students also meet every morning during the Check-in in front of the templates where they will serve as a roadmap for the week. A short overview of content of the templates:

#### SUNDAY

The template contains the rich picture of what water represents to the team and the team name. It contains the essence of their first discussions on the topic and shows the knowledge already present before any content inputs.

#### MONDAY

The second template shows three comic strips that highlight the most significant stories of the field trips. They are the result of a first funneling step, where the team needs to digest a large amount of information from about ten excursions to just three stories.

#### TUESDAY

More decsions on Tuesday result in a first selected and articulated problem statement (Version 1.0) and 3-4 other

problem statements of that day in their raw form. By starting to visualise the evolution of their problem statement, students document how their understanding of the problem deepens and becomes more clear.

#### WEDNESDAY

The main result of the day is an improved problem statement (Version 2.0). The template will contain two solution ideas, the sketches of the morning, and the answers to the first questions of the brief: scientific rigor and feasibility.

#### THURSDAY

The thursday template contains a visualisation of both prototyped ideas that were presented to the experts. It will also contain the lessons learned from the feedback and answers to the systems thinking questions of the brief.

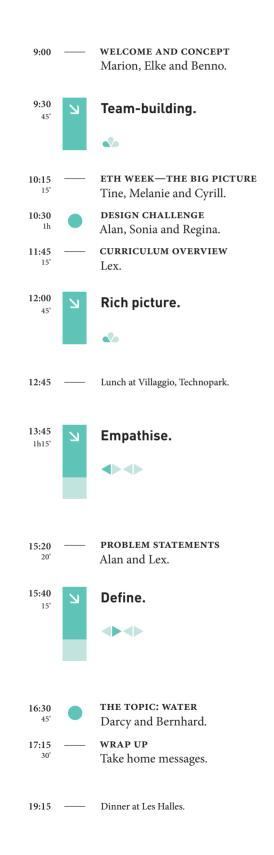
#### FRIDAY

Finally, the last template will contain the final version of the problem statement (Version 3.0), a short description of their story and solution and refined answers to all questions of the brief. The last template complements the prototype that will be exhibited in front of the Process wall.

#### THE PROCESS WALLS IN THE HALL

Sunday	Wednesday
Monday	Thursday
Tuesday	Friday

### Tutor training.



#### Sunday.

The goal for Sunday is to settle into ETH Week. You will meet your team members and exchange your personal viewpoints on the topic of water. Discuss your expectations and understand both the goals and the process of the week.

#### •••

TEAM-BUILDING RICH PICTURE

#### Monday.

The goal for Monday is to dive into the topic of water, and to get an overview of the complexities and challenges. You will build empathy for a range of actors you meet during the field trips, and discuss stories that include your personal interpretations.

CHECK IN FIELD TRIPS UNPACK

#### Tuesday.

On Tuesday, we will introduce the five key topics to help you think about water in terms of additional dimensions. You will get to meet over 30 experts so that you can start defining the problem you will be working on for the rest of the week. Learn to take decisions quickly and act as a team.

## CHECK IN FAIR DEFINE

Wednesday.

The goal for today is to formulate a refined problem statement that reflects the deeper understanding gained during the first iteration. During the morning, you will think of initial solutions to really understand your problem. The afternoon is reserved for integrating feedback and research results.

CHECK IN IDEATE RESEARCH + TEST

#### Thursday.

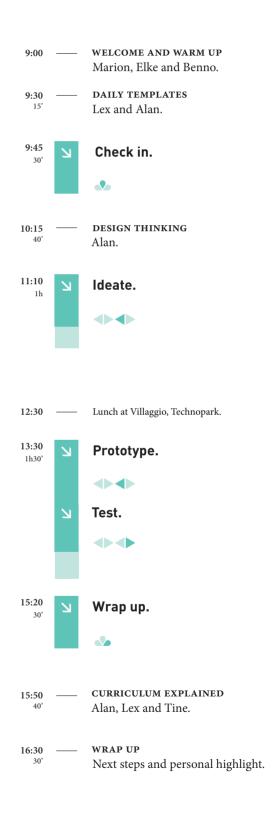
It is time to start	feedback from experts,
prototyping. During the	making a dry run of
morning, you will work	a first presentation.
on solutions and make	Afterwards, you
your ideas tangible.	will integrate their
You will then use your	comments and
prototypes to get	reconsider the brief.

CHECK IN	PROTOTYPE	TEST

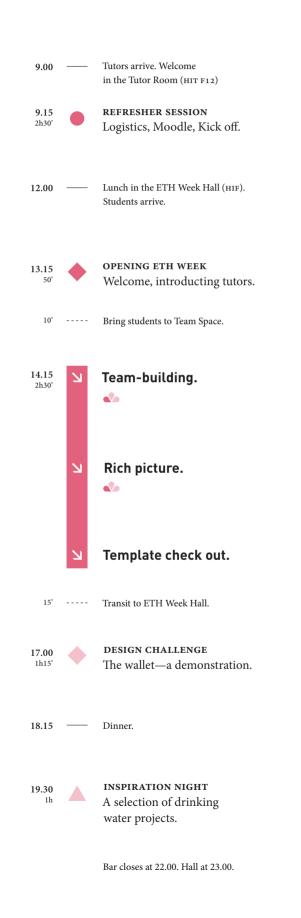
#### Friday.

On this last day of ETH Week, we ask you to focus on telling a balanced story that takes into account all three parts of the brief. Use your prototype to convince the audience of your problem statement and solution. Then wrap up the week before we all come together to celebrate six days of critical thinking!

CHECK IN FINISH + PRESENT WRAP UP



### Sunday. Meet.



- □ Set up the team space beforehand and prepare materials.
- During the opening speeches, stand at the table with the assigned team number. From there, walk with your students from the stage to the team space.
- □ Take the Sunday template from the hall to the team space.

## **I** Team building.

The first time slot is dedicated time for students to get to know their tutor and fellow team members. The tutor will design this slot together with the trainers in the online phase of the tutor training. The team members learn about their respective backgrounds, experience and motivation to join ETH Week. They select a name to establish the team and discuss the expectations for the week.

#### GOALS

- Become comfortable working in a team setting.
- Acknowledge the diversity of the team.
- Commitment to the team and to the task of ETH Week.

#### MATERIALS

Depends on how you designed the slot.

#### TUTOR ROLE

Design the slot in coordination with trainers. Lead and keep time.

1.3 🙁

the week.

Explain the brief

discussion about

the expectations of

and facilitate a

#### PROCEDURE

1.11.2Meet your team at<br/>the Process wall,<br/>explain the road<br/>map. Walk over to<br/>settle into the team<br/>space.Start with the team-<br/>building activity<br/>you designed. Make<br/>sure they establish a<br/>team name, too.



TIMING

Flexible, allow for 1h10'. Use timeline as a guide.

- □ We need 3 keywords per student for the water overview lecture tomorrow. Upload them by 16.00 to bit.ly/ethweek.
- □ Also, upload the team name by 16.00 to bit.ly/ethweek.

# Rich Rich picture.

Introducing the topic: Water. Students will draw a visual image or diagram of where their water comes from, how it gets to them and where it goes from there. They will draw different elements and how these are related in the system. Students discuss the various pictures and their different views and opinions.

#### GOALS

- Identify existing knowledge about the topic.
- Start framing the topic informally.
- Become familiar with systems thinking.
- $-\,$  Learn how to build on each other's knowledge.

#### MATERIALS

Workbook. Paper.

#### TUTOR ROLE

Keep time. Moderate the discussion. Encourage them to be crictical and discuss about normative concepts like sustainability.

#### PROCEDURE

2.1 •	2.2 •	2.3 :
Students write	Explain the goals of	In pairs, students
down the three first words that come to their mind when they think of water,	the exercise. Each one starts drawing his or her rich picture onto a sheet	discuss the pictures to one another. Facilitate rotations regularly.
hang them up.	of paper.	
15.15	15.20	15.30
5'	10'	30'
TIMING		

Flexible, allow for 45'. Use timeline as a guide.

- □ Remind students to register for sports before 20.00.
- □ Leave the team space at 16.45 and remind students to be in the Hall at 17.00.
- □ Bring the materials box from your team space to the Hall for the wallet exercise.

## **∖** Template check out.

Students learn the first habit of ETH Week, i.e. to document their daily process. On this first day, we have reserved more time, later in the week we speed up. The templates contain the essence of the day and function also as a roadmap for the week. You will discuss them every morning at the Process walls in the ETH Week Hall. The first template contains the rich picture of the whole team. Also, add the team name to the template.

#### GOALS

- Visualise the results of the day onto the template.
- Understand to work under time pressure.

#### MATERIALS

Sunday template.

#### TUTOR ROLE

Moderate the discussion. Keep time. Guide the template completion process.

#### PROCEDURE

<b>3.1</b> Collectively establish and draw the key elements of the rich picture of the team.	<b>3.2</b> Introduce the daily templates and have students transfer the rich picture to the Sunday template.	3.3 ☆ Briefly wrap up and walk back to the ETH Week Hall to hang the template back onto the Process wall.
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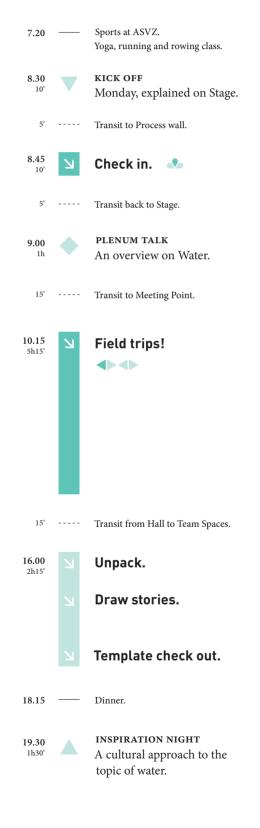
16.00	16.20	16.40
20	, 20'	5'

#### TIMING

Allow for 45'. Use timeline as a guide.

Plenum session at 17.00.

### Monday. Experience.



- ☐ If you need additional material for your activity, bring the material box from the team space.
- □ Set up Process wall so that it serves your purpose.

### **Check in.**

After the formal kick-off of the day, meet at your Process wall. Tutors have the lead and design the procedure of the time slot themselves. Make use of the daily templates as a roadmap for the week. Clarify open questions about the process and make sure all team members feel included and are committed.

#### GOALS

- Review the results of the previous day(s).
- Understand the goals of the day at hand.
- Link the next tasks to the general goal of the week.

#### MATERIALS

6 daily templates. Standing table. Other material if necessary.

#### TUTOR ROLE

Design the slot in coordination with trainers. Lead and keep time.

#### PROCEDURE

<b>1.1</b> Walk from the kick- off to your Process wall. Make sure you start on time.	1.2 Review the results from the previous days. Facilitate a discussion. Ask why? Clarify open questions.	<b>1.3</b> Make sure students are back for the plenum talk in time.
8.40	8.45	8.55
	, 10	)' 5'

Strict. 10' for the task, account for 5'+5' of transit time.

### **∖** Field trips!

Each team member joins a different field trip, visiting a different real-world setting. Students are responsible for leading the discussions and engaging in a dialogue, collecting information that they judge to be relevant. Guiding questions are available in the workbook.

Students will be asked to bring back a story: Someone... (a person, a group), wanted... (sought, desired, had a goal), but... (complication, obstacle, conflict), so... (climax, outcome, learning, resolution). On the way back students discuss these stories in pairs. Each student then writes his story down on color-coded post-it notes.

#### GOALS

- Link the global overview talk to the local context.
- Engage with real-world partners by formulating own questions, keeping an open and critical mindset.
- Put yourself into someone else's shoes and build empathy.
- Distill an experience to a story that others can relate to.

#### PROCEDURE

2.1 • Wait for students at meeting point. Introduce yourself. Check participants list, headcount. Leave on time.	2.2 : Explain rules and attitude. Remind students to ask why. Contact external partner and confirm arrival.	2.3 ↔ Introduce yourself to external partner, explain your role. Help him to stick to the schedule.
10.15	4 DD11/4 1	ON SITE
TIMING	ARRIVAL	

Bar closes at 22.00. Hall at 23.00.

Depends on excursion. See excursion factsheet.

- $\hfill\square$  Make sure you have the excursion package.
- □ Track of the head-count during excursions.
- □ Thank the external partner and hand him the gratitude.
- □ Bring the students back to the hall by 15:30.

#### MATERIALS

Excursion brief for tutors, including participants list. Color-coded post-it notes: Someone (yellow), Wanted (green), But (pink), So (orange). Gratitude for external partner.

#### EXCURSION COORDINATOR ROLE

During the excursions tutors become coordinators, meaning you only have organisational tasks.

The coordinator keeps track of all students, keeps the time and encourages students to interact with the people on site.

The coordinators are also the contact person for our external partners: introduce yourself, be the face of ETH Week, make sure to respect the external partners rules and wishes. Make sure students behave professionally and like a guest.

Contact the Info Desk, if you should run late or if you run into any troubles.

2.4 Encourage discussions by students. Repeat the goals if necessary.

2.5 : On the way back, students discuss the excursion in pairs and distill it to a story using the workbook. 2.6 • Hand out the colorcoded post-it notes where students record their story individually.

#### IN TRANSIT

RETURN

- □ Make sure everyone used the same color coding: Someone (yellow), Wanted (green), But (pink), So (orange).
- □ The trainers are available for casual debriefings between 16.15 and 18.00.

### **∖**Unpack.

This time slot brings the team members up to speed about the experiences had during the excursions. By listening and engaging in short discussions, relating them to each other, the team starts the synthesis process. The post-it sets (Somone, Wanted, But, So) capture an interesting story. Students explain in their own words why they chose this story and what aspect fascinated them. Putting them up, the team starts the 'space saturation' process, filling their walls with tangible information that documents thoughts and experiences.

#### GOALS

Condense information and convey it efficiently.

- Acquire an overview about key actors and stakeholders within the Swiss water sectors, understanding some specific needs and solutions.

#### MATERIALS

Use the walls in the team space to hang up the story post-its.

#### TUTOR ROLE

Moderate and keep time. Make sure all team members speak equally. Make sure the stories told are well documented on the walls in the team space.

#### PROCEDURE

1.1 Make sure everyon uses the same colo code. Explain the goals and timing o the next two steps.	r his/her story while the othe	and cluster ers post-its so t r makes sense ition. team. Add l	the hat it e to the abels,
16.00	16.05	17.20	
	5'	1H15'	10'

Flexible, allow for 1h30'. Use timeline as a guide.

### **Draw stories. Draw stories.**

Learning how to take decisions as a team will be crucial in order to be productive during the week. Time pressure helps this process. Consider this slot a dry-run for more important decisions to come later. Condense the large set of observations to the 3 most significant stories and visualise them into 3 comic strips. Students are allowed to mix and match stories from different excursions.

#### GOALS

- Take decisions as a team.
- Visualise information creatively.
- Identify connections, systems thinking.

#### MATERIALS

A4 paper, to stick to the Monday template.

#### TUTOR ROLE

Keep time. Moderate the discussion. Make sure they take the decisions in time. You may suggest a tool to speed up the process.

#### PROCEDURE

Flexible, allow for 30'.

2.1 ** Moderate the selection process so that students manage to choose 3 stories.	2.2 <>> In parallel, have students produce the 3 comic strips. Use text to make ideas clear.	2.3 : They explain them to one another. Make sure stories are understandable.
. 17.30	17.40	20'
TIMING		

Bar closes at 22.00 Hall at 23.00

Sports at ASVZ.

KICK OFF

Check in.

Transit to Process wall.

Transit back to Stage.

PLENUM TALK

An overview on Water.

Transit to Meeting Point.

Field trips!

15' ----- Transit from Hall to Team Spaces.

Draw stories.

Template check out.

INSPIRATION NIGHT

topic of water.

A cultural approach to the

Unpack.

Dinner.

Yoga, running and rowing class.

Monday, explained on Stage.

7 20

8.30

8.45

9.00

10.15

5h15

16.00

2h15'

18.15

19.30 1h30'

1h

15' -----

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- □ Leave the team space in time for dinner that is served between 18.15–19.15.
- □ Remind students to register for sports before 20.00.

# check out.

The three comic strips contain the essence of the discussions of the day. Stick them onto the daily template. Hang them up at the ETH Week Hall where they will be ready for tomorrow's Check in.

#### GOALS

- Visualise the results of the day onto the template.
- Understand to work under time pressure.

#### MATERIALS

Monday template.

#### TUTOR ROLE

Moderate the discussion. Keep time. Guide the template completion process.

#### PROCEDURE

3.1 🙁	3.2 🙁
They finish the	Wrap up the day.
comic strips and	,
hang them onto the	
template	

3.3 🙁 Walk back to the ETH Week Hall to hang the template back onto the Process wall.

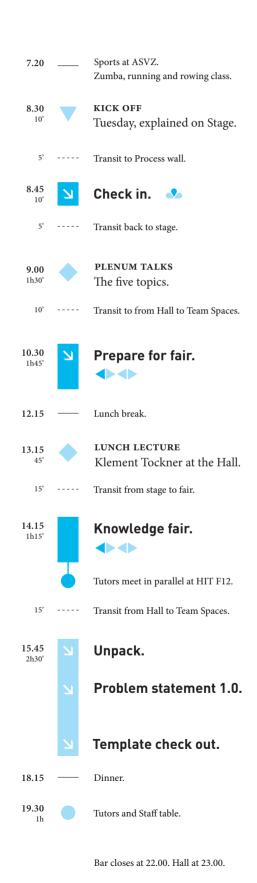
#### 18.00

#### TIMING

Flexible, allow for 15'.

15'

### Tuesday. Funnel.



- □ Pick up lunch vouchers for your team.
- ☐ If your team does not manage to cover all 5 topics, upload which one they decided to skip before 11.00 to bit.ly/ethweek.
- □ Give students the lunch vouchers and remind them to be on time for the lunch lecture at 13.15.

## Prepare for fair.

Students prepare for the knowledge fair in the afternoon. They work in pairs, choose one topic and decide what they are going to ask the actors and stakeholders. They prepare at least 5 questions per expert.

They brainstorm questions, identify and group themes, then establish an order to allow for the discussion to flow naturally and so that they get answers to the following questions: What is the expert trying to solve? How are they solving it? Why are they doing it in this way?

#### GOALS

- Build on the knowledge from the excursions.
- Identify links between the topic talks, the actors, and stakeholders of the fair.
- Learn how to prepare an interview.

#### MATERIALS

Workbooks.

#### TUTOR ROLE

Oversee progress. Moderate the discussion about the strategy. Explain the procedure of the knowledge fair in the afternoon.

#### PROCEDURE

1.1 ☆ Split team up into pairs (or one group of 3 if necessary). One pair per topic. If you only manage to cover 4 topics, let us know.	<b>1.2</b> : Oversee how the teams prepare questions. You may call a short team discussion midway.	1.3 * Discuss the str and expectation what to bring b from the fair. V up.	on of back
10.50	11.00	12.00	
10	, 1H	ł	15'

TIMING

Flexible, allow for 1h25'. Use timeline as a guide.

### **\** Knowledge Fair.

During the knowledge fair, we have invited 27 water actors from business, research, administration and non-governmental organisations. By getting access to this network, students get a multiplexed understanding and benchmark of the current best practice examples in the field.

The knowledge fair is organised in 5 sectors; one per topic. Each sector has 5–6 booths. Students rotate in pairs, visiting 4 of the booths, one at each of the 4 rounds. Each pair remains in the selected sector.

After a short elevator pitch, the students are required to engage in a discussion and lead the conversation, getting answers to the interview questions prepared in the morning.

Students record information in three categories (buckets): actors, needs, insights. They form the ingredients of a problem statement.

The students are also encouraged to take contact details for followup questions on Wednesday afternoon.

#### GOALS

- Connect the challenges of the morning session to specific solutions.
- Close the knowing-doing gap to find solutions for water related problems.
- Identify and cross-check ideas for solving problems.

#### PROCEDURE

2.1 :	2.2 •)	2.3 📫	2
Each pair goes to	The invited actor or	Together with the	]
their topic and	stakeholder of one	students from the	r
picks a first expert	booth gives a short	other teams at the	t
booth, 3 pairs max	elevator pitch.	booth, students lead	S
per booth.		the discussion.	n
			n
			f
14.05	14.15	14.18	1.
	3'	. 12'	•

TIMING

Strict. Switching occurs on acoustic signal.

 No active role in the knowledge fair. Please join the formal debriefing session in the tutor room.

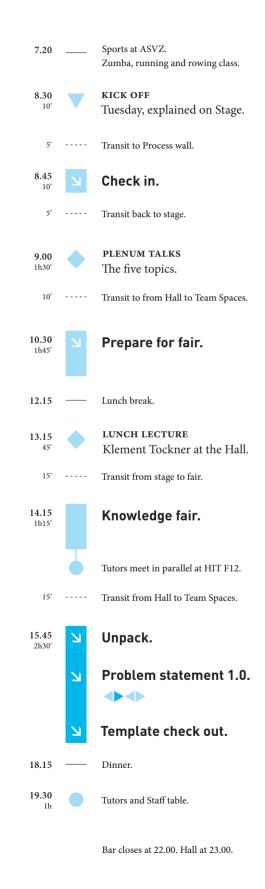
#### MATERIALS

Students use workbooks to document discussions. Business cards.

#### FORMAL DEBRIEFING

To discuss the development of the team processes, scenarios and situations you might have faced so far, the trainers invite you for a formal debriefing. It will take place in the tutor room (HIT F12) from 14:15–15:15. Be back to the Hall at 15:30.

2.4 : The acoustic signal marks the end of the round. Students switch to the next boot. A free market approach if facilitated.	2.5 ○ The steps 2.2–2.4 are repeated 3 times.	<b>2.6 :</b> We thank the external partners of the fair. Take a break and walk back to the team spaces.
14.30	14.35 14.55 15.15	, 15.30 ,



### **Unpack.**

This time slot brings the team members up to speed about the experiences of the knowledge fair. Similar to the unpacking process after the excursions, we work again with post-it notes to categorise the gathered knowledge from the interviews into three 'buckets': actors, needs, insights.

#### GOALS

- Cluster information into categories (actors, needs and insights) and convey it efficiently.
- Identify how the different problems relate to each other, add structure help define what to focus on later.

#### MATERIALS

Color-coded post-it notes, one color per bucket: actors (yellow), needs (green), insights (pink).

#### TUTOR ROLE

Time keeping. Moderation. Make sure everybody gets to speak equally.

#### PROCEDURE

1.1:1.2 •)For each booth,Each pasynthesise theshares tknowledge gatheredknowledgeonto the colorthe wallcoded post-its.notes.

1.2 •)1.3 \*Each pairModerate ashares their newdiscussion to clusterknowledge and fillsthe post-its. Teamthe wall with post-ittakes first decisionsnotes.what to focus on.

ge and fills the post-its. Team with post-it takes first decisions what to focus on.



IIMING

Allow for 1h15' in total. Use timeline as a guide.

### ↘ Problem statement 1.0.

The buckets are the ingredients of a problem statement. Actor – need – insight. From all the knowledge unpacked over the last two days, we produce a first set of problem statements in pairs and then decide as a team which one has the most potential and inspires all members of the team. It will be a very first draft that will be improved continuously. The first version can be simple. Follow the criteria to define scope and make sure all ingredients properly relate to each other.

#### GOALS

- Take decisions during a first define round quickly.
- Practice how to formulate a problem statement.

#### MATERIALS

Workbooks.

#### TUTOR ROLE

Time keeping. Moderate the decision process.

#### PROCEDURE

2.1 :	2.2 •)	2.3 📫
Have students	Each pair shares	Moderate a
work in pairs	their problem	discussion so they
to formulate a	statement with the	choose one problem
problem statement	others.	statement (can also
using the		be a combination).
workbook.		

17.00	17.20	17.30	
20'	10'	30'	

TIMING

Allow for 1h in total. Use timeline as a guide.

- □ Make sure the template is ready at 18.15 in the Hall so that experts can have a look at what you produced so far.
- □ Leave the team space in time for dinner that is served between 18.15–19.15.
- □ Remind them to register for sports.

## **∖** Template check out.

The result of the day is a first problem statement that will guide the ideation process on Wednesday. The problem statements that have not been chosen have a space on the template as well. All other discussions are documented on the walls in the team space. In this way, they remain part of the process, to refer back to them later or integrate them into novel ideas. Hang up the template in the ETH Week Hall where they will be ready for tomorrow's Check in.

#### GOALS

- Archive the results of the day onto the template.
- Capture wider results of the discussions on team space walls.

#### MATERIALS

Tuesday template.

#### TUTOR ROLE

Moderate the discussion. Keep time. Guide the template completion process.

#### PROCEDURE

3.1 \* They finalise the language and write the problem statement onto the Wednesday template.

#### 3.2 🙁

Add other problem statements as separated elements: actors, needs, insights.

#### 3.3 🙁

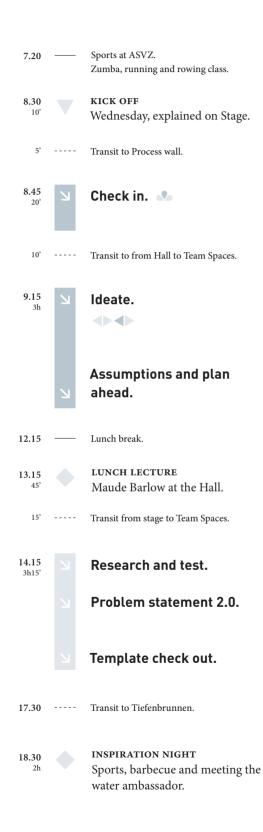
Wrap up the day and walk back to the ETH Week Hall to hang the template back onto the Process wall.

#### 18.00

#### TIMING

Allow for 15'.

### Wednesday. Define.



Bar closes at 22.00. Tiefenbrunnen at 23.00.

- □ Check at the Info Desk if there was expert feedback for your team.
- □ Pick up lunch vouchers for your team.
- □ Beforehand: prepare 15 paper sheets per student for ideation.
- □ Join the quick meeting between tutors and facilitators to coordinate at 8.00 at the Info Desk

### **∖** Ideate.

After establishing a first draft of the problem statement, it is time to explore if it holds and is productive. We therefore ideate in two steps. First we brainstorm, exploring solutions that answer to the problem statement. The goal is not yet to develop good solutions but to get the obvious solutions out of the heads to go beyond them. Ideas are generated, selected, and clustered, then they reflect on the problem statement. This is repeated twice. The result of the first step is an improved problem statement and clusters of ideas.

The second step is sketching ideas for each cluster. It is quick, it is rough. They may be product sketches, critical function sketches, process sketches. Example: if a cluster is called gamification, think of games, key features, processes, etc. By splitting up into subteams, students perform tasks concurrently, which has the advantage of being able to apply lessons from one to the other. It also makes it easier to engage all students. There are two rounds of sketchin as well, with feedback in between.

#### GOALS

- Rephrase your first problem statement.
- Generate ideas instead of evaluating them. \_
- Probe and clarify different aspects of a solution.
- Bring abstract ideas onto paper so they become shareable.

#### PROCEDURE

1.1 They generate ideas using the leaves brainstorming method introduced during the tutor training. Output of 60+ leaves.	1.2 ☆ Every student selects one idea, briefly explaining why. Remaining ideas are set aside. They create 3–4 named clusters.	1.3 ☆ ○ Check if your problem statement needs improvement, considering the right scope and the criteria. Repeat 1.1-1.3 once.	1.4 <b>4</b> They take 10' to recluster ideas from both rounds and generate quantity sketches per cluster in sub-teams, focus.	1.5 Each subteam presents the solution sketches and gets feedback. Not more than 5' per sub-team.	1.6 <⊳ Discuss the feedback and refine, combine or eliminate sketches. Reduce to four, focus on quality.
9.25 (10.05)	9.35 (10.15)	9.55 (10.35)	10.45	11.10	11.30

```
TIMING
```

Strict 2h20' in total. Stick to slot timeline.

#### MATERIALS

Plain A3 paper. Use the standing tables. Place a problem statement in the center. 15 paper sheets per student (size: 1/3 of A4).

#### TUTOR ROLE

Time keeping. For Step 1.2, make sure every team member speaks less than 1 min during selection and ensure that everyone can share his/her opinion on the clusters. Assist the facilitator. Moderate the feedback round 1.5.

#### FACILITATOR ROLE

Give a 10' introduction at 9.15 to both your teams.

Steer the teams and assist with sketching if necessary. Give feedback: What is good? What is unclear? What needs improvement?

Give students the lunch vouchers and remind them to be on time for the lunch lecture at 13.15

### **Assumptions** and plan ahead.

After generating first ideas, this slot sets aside time to evaluate the ideas and remain critical. Students go back to the brief and start answering the first question of the scientific rigor aspect: 'What are the underlying assumptions?' This goes hand in hand with preparing for the first feedback round in the afternoon where they test their ideas with both experts and users. From the experts met earlier, choose who is able to give feedback and schedule a phone call or ask for an answer by email.

#### GOALS

- Be critical with your own ideas.
- Keep an open mind to include feedback.

#### MATERIALS

Workbooks.

#### TUTOR ROLE

Time keeping. Moderate discussions.

#### FACILITATOR ROLE

Wrap up and clarify how it links to the next tasks.

#### PROCEDURE

<b>3.1 (b)</b> They answer the scientific rigor part of the brief. What are your underlying assumptions for each cluster?	<b>3.2 *&gt;</b> Then, reach out to experts by email and schedule a short discussion in the afternoon to test their ideas.	3.3 ☆ Share their assumptions for each cluster. Then wrap up before lunch.
---	--	---

11.45		12.00	12.10	
	15'	10'	•	5'

#### TIMING

Strict 30' in total. Stick to slot timeline. Break for lunch at **12.15**.

□ The trainers are available for casual debriefings between 14.30 and 17.00.

### Sports at ASVZ. 7 20 \_\_\_\_\_ Zumba, running and rowing class. 8.30 KICK OFF Wednesday, explained on Stage. 5' -----Transit to Process wall. 8.45 Check in. Transit to from Hall to Team Spaces. 10' ----9.15 Ideate. Assumptions and plan ahead. 12.15 Lunch break \_\_\_\_\_ LUNCH LECTURE 13.15 Maude Barlow at the Hall. 15' -----Transit from stage to Team Spaces. 14.15 Research and test. Problem statement 2.0. Template check out. 17.30 ----- Transit to Tiefenbrunnen INSPIRATION NIGHT 18.30 Sports, barbecue and meeting the water ambassador.

### N Research and test.

Students will deepen their understanding. For this, they split up to work in parallel. Some do literature and online research to back their assumptions with facts and figures answering to the scientific rigor part of the brief. Others test the problem statement and the idea sketches with the experts they contacted in the morning. Others test with non-experts on campus or on the street, answering the feasibility part of the brief. All then come back and share the feedback with the team.

#### GOALS

- Understand how to build on other people's knowledge.
- Open up to feedback and be critical about it to evaluate your own ideas.

#### MATERIALS

Workbooks. Post-its and team space walls.

#### TUTOR ROLE

Time keeping. Moderate unpacking. Assist with research.

#### FACILITATOR ROLE

Clarifications, help unpacking.

#### PROCEDURE

1.1A < 1.1B > In parallel, they They also explain check assumptions, do an analysis and research to find proof backing their statements.

sketches to experts and non-experts to test assumptions and feasibility.

> 15.45 1H30' 30'

1.2

Students unpack

the lessons learned

and evaluate their

combine sketches if

ideas. Gradually

necessary.

#### TIMING

14.15

Strict. 2h for the task.

### **Problem** statement 2.0.

Students continue working in parallel subteams and simultaneously refine the problem statement and the idea sketches. Combine or discard sketches based on the feedback so that only one sketch per subteam remains. They then rephrase and refine their problem statement. Make sure they become more precise, the link between insight and need are clear and they continue to fulfill the criteria.

#### GOALS

- Fall in love with the problem, not with the solutions.
- Clarify and deepen problem statement and idea sketches.

#### MATERIALS

Paper.

#### TUTOR ROLE

Time keeping. Clarify process.

#### FACILITATOR ROLE

Clarifications, help frameing the problem.

#### PROCEDURE

Strict. 45' for the task.

2.1A < They refine/ combine their ideas, going for one idea per sub-team ending up with 2 for the team.	<b>2.1B</b> ► In parallel, they refine their problem statement. Improve precision and depth.	2.2 Bring both aspects together and prepare a short presentation to give to another team.
16.15		17.45
•	30'	15'
TIMING		

Bar closes at 22.00. Tiefenbrunnen at 23.00.

- □ Make sure the template is ready at 17.30 in the hall so that experts can have a look at what you produced so far.
- □ Remind them to register for sports before 17.00 at the Info Desk.
- □ Make sure your team leaves at 17.30 sharp for Tiefenbrunnen

### **\** Template check out.

The Wednesday template contains the problem statement 2.0 as well as 2 selected ideas, the 4 sketches from the morning and the results of the first ideation round. Hang up the template in the ETH Week Hall where they will be ready for tomorrow's Check in.

#### GOALS

- Visualise the results of the day onto the template.
- Capture wider results of the discussions on team space walls.

#### MATERIALS

Wednesday template.

#### TUTOR ROLE

Moderate the discussion. Keep time. Guide the template completion process.

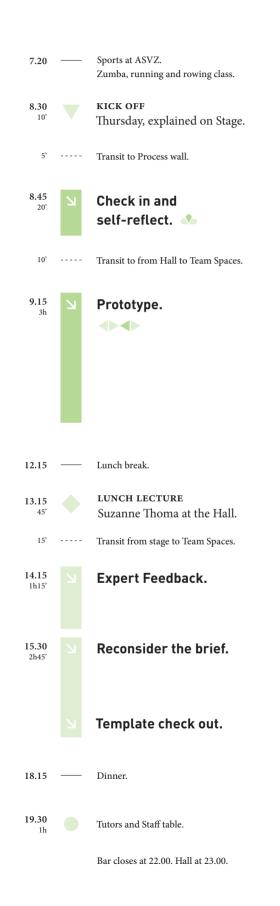
#### PROCEDURE

	17.00		17.15	
,		15'		15'

#### TIMING

Sports in Tiefenbrunnen starts at 18.30. End no later than 17.30.

### Thursday. Test.



- □ Check at the Info Desk if there was expert feedback for your team.
- □ Pick up lunch vouchers for your team.

### **\** Check in and self-reflect.

After the formal kick-off of the day, meet at the Process wall. The facilitators join on Thursday morning to evaluate the progress of the team. They will give advice on how to make the best use of time so that all teams manage to have two presentable prototypes for the feedback round in the afternoon. Clarify open questions about the process and make sure all team members feel included and are committed.

#### GOALS

- Review the results of the previous days, understand the goals of the day, link the next tasks to the general goal of the week.

#### MATERIALS

6 daily templates. Post-its if necessary.

#### TUTOR ROLE

Repeat the Check in slot from previous days. Lead and keep time. Add some time for facilitators to give advice.

#### FACILITATOR ROLE

Evaluate if the team needs to repeat steps from Wednesday before starting with the prototyping.

#### PROCEDURE

Process wall. Make sure you start on time.	progress. You facilitator wi you advice or to continue.	ll give about about	get an inpu story-telling
8.40	8.45	9.05	

Strict. 20' for the task, account for 5'+10' of transit time.

### **∖ Prototype.**

Prototyping is a chance to make ideas tangible. While they can be very different in format, ranging from a wall of post-it notes, to 3D models, to role-play, the general idea is the same: to gain an understanding of how your solution will function in reality and how it will be experienced from the actor's perspective.

It is an iterative process, where students need to take one decision after the other, to move from intangible ideas to a concrete model. What was unknown when they started off, becomes precise. Also, design their prototype according to what they want to learn from it.

By making ideas concrete, they also become shareable. The more you go into detail, the less there is a chance for misunderstanding. Therefore, prototypes are valuable conversation pieces and can have their very own rhetorical value.

On Thursday morning, the students continue working in subteams, one for each idea. There will be two rounds of prototyping followed by story-telling and feedback. After building the prototypes, they learn how to use the prototypes to explain, refine and test their idea using story-telling techniques. The other subteam and the facilitators give feedback to what is unclear, what needs improvement.

Both ideas will be presented to the experts after the lunch lecture.

#### PROCEDURE

2.1 4	2.2 •)	2.3 🔅
First round of	Each sub-team	The other sub-team
prototyping. Work	explains their	and the faciliators
on two ideas	prototype to	give feedback.
concurrently. Build	the other team	What needs
to understand and	members. Less than	improvement?
take decisions.	5' per sub-team.	What is unclear?
9.20	10.30	
1H10'		30'
TIMING		

Strict 2h55' in total. Stick to slot timeline.

- □ Remind students that additional tools are available at the Info Desk.
- □ Give students the lunch vouchers and remind them to be on time for the lunch lecture at 13.15.

#### GOALS

- Use prototyping as a way to refine an idea and take design decisions.
- Use the prototypes to learn how to tell a convincing story.
- Learn the benefits of working concurrently and take decisions to integrate both ideas into a final one.

#### MATERIALS

Prototyping materials and tools. Available in boxes on the porch. The material is shared between all teams. Try to return material to the boxes that you don't need so that others can use it.

#### TUTOR ROLE

Keep time and moderate the feedback rounds.

#### FACILITATOR ROLE

Assist with prototyping techniques. Give feedback. Remind them to converge to one prototype by the end of the day.

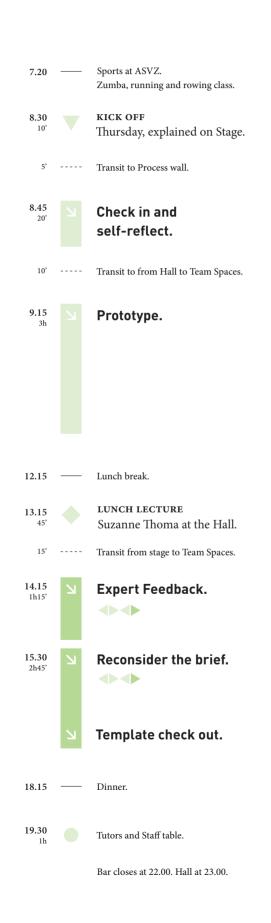
of prototyping. learned during prepa Students keep the story-telling space working on two input and dry-run feedba	up and are the team for the ack round, ng at 14.15.
--	---

#### 11.05

12.05

55'

10'



### **S** Expert feedback.

The feedback round is organised in three rounds so that experts can visit three teams, one after the other. Your team will get to present their prototype during one of the three rounds. Use the remaing time to continue working on your project. Also, make use of this time to think about the last part of the brief: systems thinking.

#### GOALS

- Practice how to present their ideas concisely in preparation for the final presentations.
- Learn how to make sense of feedback and draw conclusions for what this means in regard of improving the project.

#### MATERIALS

You may bring your templates from the hall for the feedback. Use a feedback capture grid: What was good, constructive criticism, questions for clarification, new ideas sparked.

1.C 🔅

projects.

15:05

Otherwise continue

20'

working on your

#### TUTOR ROLE

Keep time. Help students document the feedback.

#### PROCEDURE

1.A •) 1.B •) Explain both Start thinking about prototypes to the the last part of experts. Link to the the brief: systems problem statement thinking. that you are trying to solve. 14:15 14:40 20'5' 20'5'

TIMING

Strict. 20' for each slot. 5' break in between.

□ The trainers are available for casual debriefings between 16.00 and 17.45.

### **N** Reconsider the brief.

Once they've been given feedback, the team unpacks and selects its final idea. They make a plan and distribute the workload to best answer the brief. Adapt the problem statement if necessary, refine the prototype and the story. Carry out the remaining research and answer all critical reflection elements of the brief.

#### GOALS

- Learn how to delegate, organise and coordinate in order to complete all tasks before the final presentation.

#### MATERIALS

Whatever works for you.

#### TUTOR ROLE

Moderate discussion, go through the brief, assist facilitators in planning.

#### FACILITATOR ROLE

The facilitators help planning their last 24h and structure their presentation.

#### PROCEDURE

2.1 Cuppack and decide with what solution to continue. They make a plan for the last 24h, decide on a project name.	2.2 <b>&lt;&gt;</b> Prepare final presentation and refine the final prototype. Reconsider the brief.	2.3 → Dry-run a first draft of tomorrow's presentation with another team.		
. <u></u>	16.00 1H45	17.45 		
TIMING				

Strict 2h30' in total. Stick to slot timeline.

- □ We need to know your project name before 18.15. Upload it to bit.ly/ethweek.
- □ Remind them to register for sports.
- □ Remind students of the technics test between 19.30-20.30.

### **\** Template check out.

The Thursday template contains the documented feedback from the experts, as well as both presented ideas. Also, add the answers to the systems thinking questions of the brief. Hang up the template in the ETH Week Hall where they will be ready for tomorrow's Check in.

#### GOALS

- Visualise the results of the day onto the template.
- Capture wider results of the discussions on team space walls.

#### MATERIALS

Thursday template.

#### TUTOR ROLE

Moderate the discussion. Keep time. Guide the template completion process.

#### PROCEDURE

3.1 4 They fill the Thursday template with the description of both ideas and the results from the feedback round.

3.2 > Add answers to the questions of the brief to the

thinking.

template: systems

#### 3.3 🔅

Wrap up the day, hang the template back onto the Process wall. They may continue working afterward dinner.

#### 18.00

#### TIMING

Allow for 15'.

### Friday. Communicate.



- □ Pick up lunch vouchers for your team.
- □ Pick up the list that will define in what order teams will present this afternoon.

### **N** Polish the presentation.

Before finishing up, the team checks the brief one last time and makes sure that all questions are answered and the focus is clear. Students stick to their problem statement, finish working on their prototypes, continue preparing their presentations and answer all questions of the brief.

#### GOALS

- Students learn how to rely on each other and wrap up a project in time.

#### MATERIALS

Whatever works for you.

#### TUTOR ROLE

You continue without the faciliators. Moderate the discussion about the brief. Then keep time and help coordinate.

PROCEDURE

1.1 🔅 1.2A 🖪 1.2B 🕨 Discuss how to Work in sub-teams Have other suborganise during the to to finish the teams work on last 3 hours. Make prototype, polishing answering the a plan for the day. specific arguments, questions of the Double-check the and writing the brief. Or organise in brief. overall narrative. a better way. 9.30 9.15 15' TIMING

Allow for 2h45' in total. Or include the Check in time in addition.

2H30'

### N Rehearse.

We rely on you to make the final event possible. Simulate the procedure as described under the Final Presentations slot so that we can get 180 people on and off stage in less than 3 hours. Include the logistics of the event, when you need to prepare, how much time you have to get on stage, and when you receive the '1 minute left' notice. Also clap when the time is up to find an elegant way to wrap up in case you should run over time.

#### GOALS

- Become comfortable with the final presentation
- Practice not only what you say but also how you say it.
- Understand the logistics of your presentations to best use the time you hava available.

#### MATERIALS

A timer, your prototype.

#### TUTOR ROLE

Keep time, make sure team understands logistics.

#### PROCEDURE

2.1 : Make sure they are done with the prototype, the ingredients for the final poster and the presentation.	2.2 : Document and clean up the workspace, sort leftover materials into the labeled boxes on the porch.	2.3 → Students rehearse their story. Stay under 5' and clap when the time is over to simulate the real thing. Wrap up.
12.00		12.30
¢	30'	15'
TIMING		
Allow for 45'.		

Bar closes at 23.00 Hall at 24.00

□ All documents and material needs to be handed in before 13.00 at the main stage in the ETH Week Hall.

### **Last** check out.

The Friday template complements the final prototype so that it is understandable without your performance on stage. Therefore write out the final problem statement, explain the solution and prototype in written form, and give final answers to the questions of the brief.

#### GOALS

— Briefly document your ideas so that they can be archived after ETH week and work without your presentation.

#### MATERIALS

Friday template.

#### TUTOR ROLE

Moderate the discussion. Keep time. Guide the template completion process.

2.4 : In parallel, potentially in pairs, hand in the prototype at the stage in the ETH Week Hall.

2.5 : Finish the last template and hang it up to complete the Process wall. Document it.

2.6 : Hand in all digital files before 13.00 at the Info Desk.

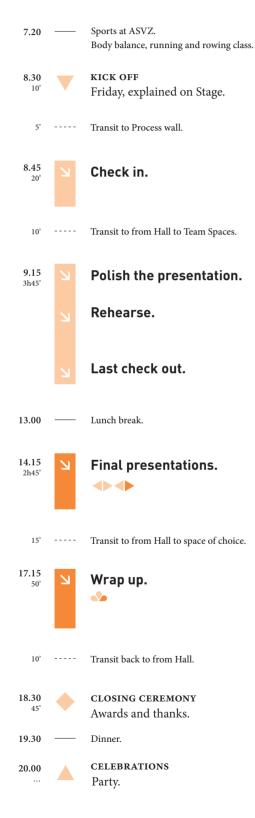
#### 12.45

#### TIMING

Allow for 15'.

Make sure you finish and hand in before 13:00.

15'



### S Final presentations.

All teams get to go on stage. Each team has 5' to present their project. The jury is composed of 6 members, of which 2 are responsible to give qualitative feedback to every team. 4 are responsible for a quantitative grading. The grading helps the jury as a basis for discussion to establish which team wins the award for 'the most inspiring story' and which team wins the award for 'the most fascinating science'. The main award is the peer-to-peer award that is assigned by the students.

#### GOALS

- Explain something complex in a simple way with a clear message using a compelling visualisation.
- On the other hand, show the foundation and the result of your research, proving your ability to think critically.

Act as a team.

#### MATERIALS

The prototype, no powerpoint.

#### TUTOR ROLE

Assist your team and clap as loud as you can.

#### PROCEDURE

TIMING

1.1 ----1.2 ∷ Team x-2 is done. Students (team x) Applause. Team x gets up through the and props quietly right corridor and in the background walks to the backwhile team x-1 stage area. presents.

## 1.3 ---organises prototype

5'

Team x-1 is done. Applause. Team x walks to the stage through the left corridor and gets mic's and gets ready.

2'

1.4 🙁 Team x presents. Time keeper hints when 1' is left. The audience claps when the 5' are up.

LOGISTICS

feeling for the space.

рнотоя

#### 1.5 ----Team x walks through the right corridor to the Process wall to store the prototype.

2'

In order to avoid collisions, make sure that your team gets up right

applause. Don't get in their way when they go off the stage, you will

be using the same corridor. Then follow the procedure below until

During the kick-off, we will explain this again live, so that you get a

After the closing ceremony, our photographer will be present to

when team x-2 is done with the presentation and you hear the

you are seated again during the time that team x+1 presents.

1.6 Team x sits back down quietly before the presentation of team x+1. Clap at the end of the presentation!

4'1'

take pictures of all teams and tutors.

Bar closes at 23.00. Hall at 24.00.	

#### Strict. 2h45' in total with a break in the middle.

2'

5'

### **∖** Wrap up.

The last time slot of the week is dedicated time for students to reflect their team process and discuss the experiences of the week. The tutor will design this slot together with the trainers in the online phase of the tutor training.

#### GOALS

- Network and to informally exchange ideas about the group process.
- Reflect on our expectations pointed out on day 1.

#### MATERIALS

Depends on how the tutor designs the slot.

#### TUTOR ROLE

Design the slot in coordination with trainers. Lead and keep time.

#### PROCEDURE

|--|

17.00	17.15	18.05	
	15'	50'	10'

#### TIMING

Strict 1h15' in total.

Thank you for your dedication to the tutor role. We are looking forward to celebrate a successful week with you on Friday.

#### IMPRINT

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