

## Information on the MOOC

### “Partnering for Change - Link Research to Societal Challenges”

- 1) Important dates, enrolment, ECTS recommendations
- 2) Institutions behind the course
- 3) Course syllabus
- 4) Suggestions for integration into lectures, seminars, project work
- 5) Course overview

#### 1) Important dates, enrolment, ECTS recommendations

#### Next mentored course starts 22. February 2021

The course will be mentored from: 22. February to 4. April 2021

The course will be available on FutureLearn for inscription until end of 2021. Learners have 8 weeks free access to the course (from the date of the course start or their inscription respectively).

td-net keeps the complete MOOC material available:

<https://bit.ly/tdmoocaccess>

Inscription is open and free: <https://bit.ly/tdmooc>

We recommend the course for master students, PhDs and postdocs, project leaders, and practitioners engaged in research cooperation. However, everybody interested or involved in searching solutions for complex societal challenges will benefit from the course.



Course duration: 6 Weeks

Estimated study time: 30 hours in total

Proposed ECTS: 1-1.5 points for following the course

The course offers many opportunities to explore the topics more in depth, e.g. additional publications, case documents, videos and links, or taking the discussion prompts as basis for written exercises. This may justify to increase ECTS to 1.5 – 2 points or higher.

To reduce study time, it is possible to choose only two cases out of the five presented and follow only those.

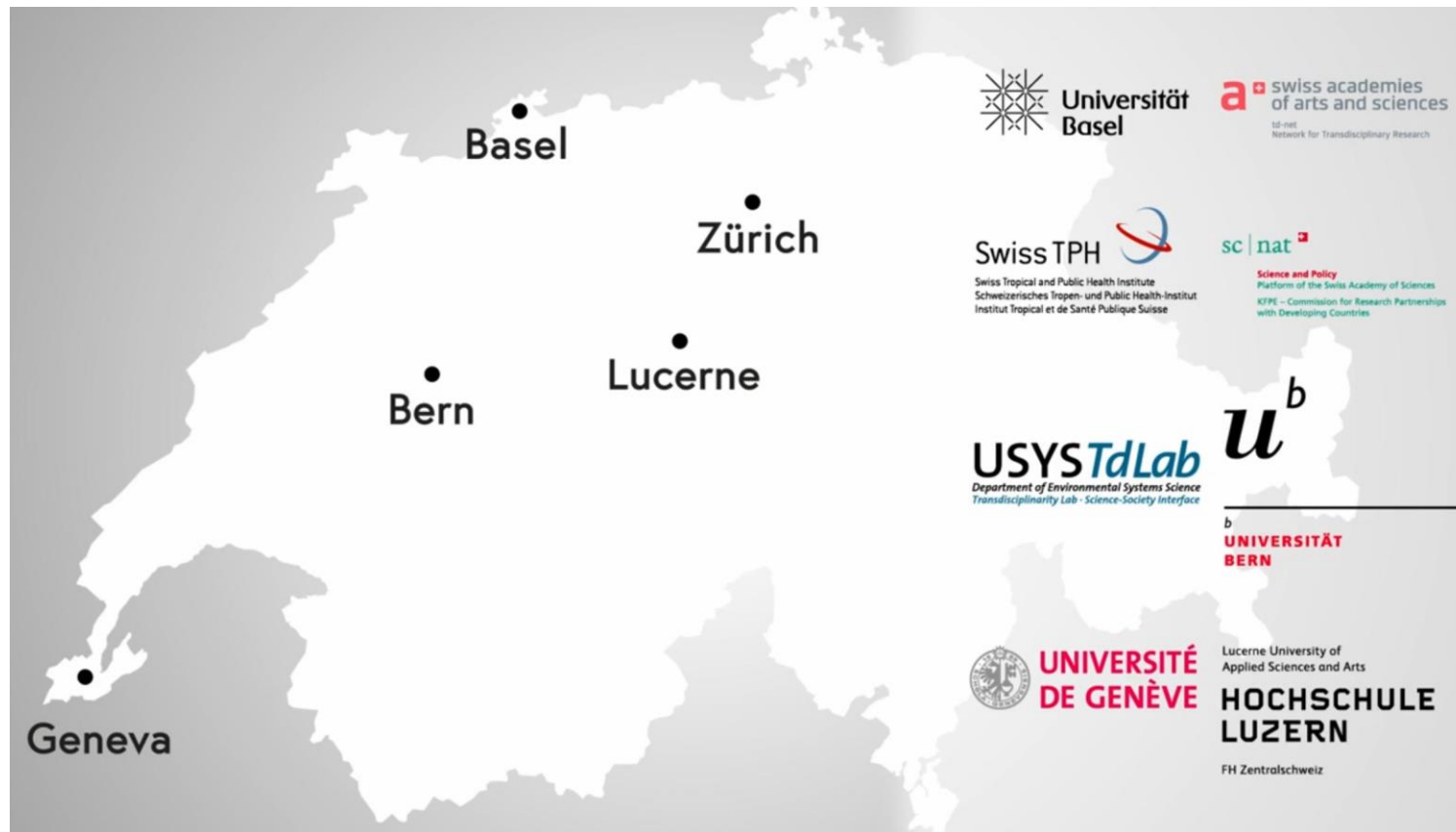
ECTS points, including the respective tests have to be handled by the responsible lecturers according to their institutional regulations.

For further information please contact [tobias.buser@scnat.ch](mailto:tobias.buser@scnat.ch)

## 2) Institutions behind the course

Together with outstanding experts from seven universities and institutes of higher education, and the Commission for Research Partnerships with Developing Countries, the Swiss Academies' Network for Transdisciplinary Research (td-net) coordinated and co-produced the first massive open online course (MOOC) on transdisciplinary research.

We are convinced, that students, researchers and practitioners from all backgrounds should have the opportunity to learn how to do research that helps to overcome societal challenges. Granting open access to this course provides a unique leverage point to increase access and extending reach equitably across the higher education landscape globally. Besides self-study and exchange with learners from all parts of the world, the course can be integrated in lectures, courses, and trainings.



### 3) Course syllabus

#### Main Topics covered by the MOOC:

- Research skills needed in order to produce relevant outcomes for society and academia
- Transdisciplinarity: principles, research processes, and application
- Guiding questions, phases, and steps in transdisciplinary projects
- Pitfalls and opportunities in transdisciplinary projects
- Ethical implications of co-production processes
- Examples of transdisciplinary projects on sustainable development, migration, and health topics

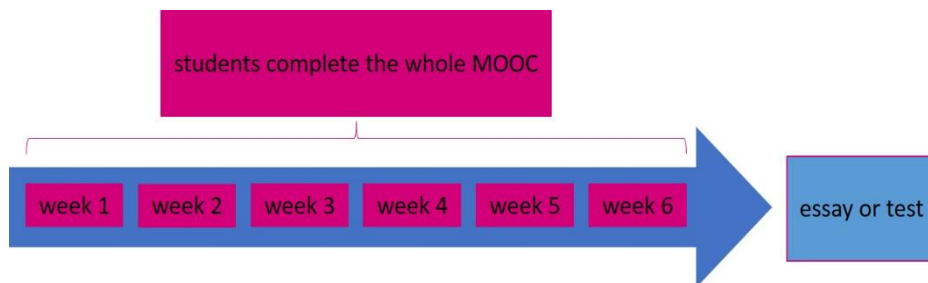
#### By the end of the course, you will be able to...

- Develop your research skills as you investigate how to co-produce knowledge for society and academia.
- Reflect transdisciplinarity – its principles, its research processes and the context in which it is promising.
- Apply transdisciplinary approaches to societally relevant questions.
- Identify guiding questions, phases and steps of transdisciplinary project.
- Apply the principles and steps of transdisciplinary research to examples in order to reflect the implication for your own projects.
- Reflect the role of scientists and stakeholders in society and consider the ethical implications of co-producing processes.

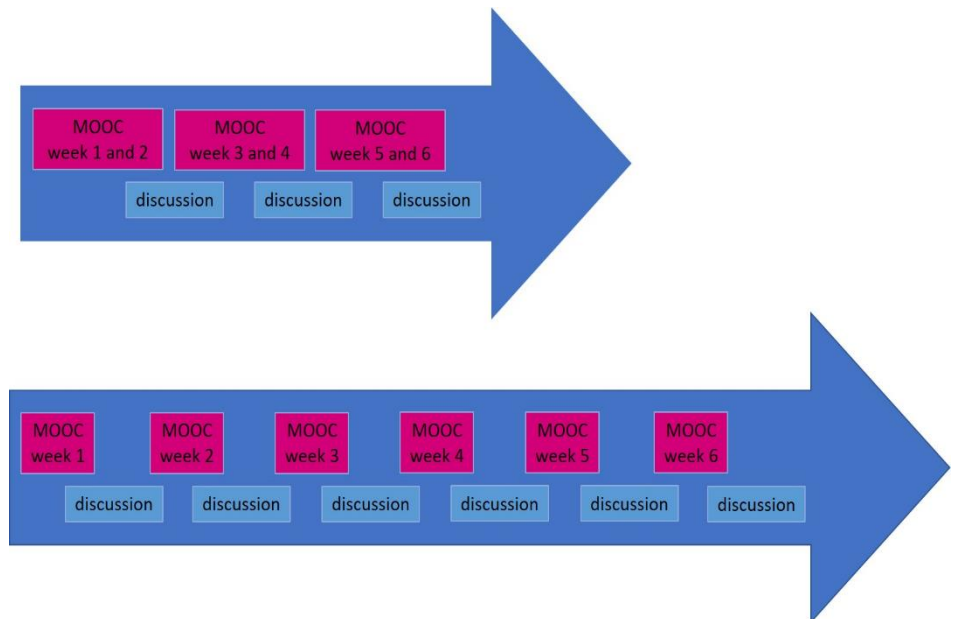
#### 4) Suggestions for integration into lectures, seminars, project work

a) Students complete the whole MOOC, essay or test at the end. Essay topics can be based on discussion prompts offered in the MOOC, for example:

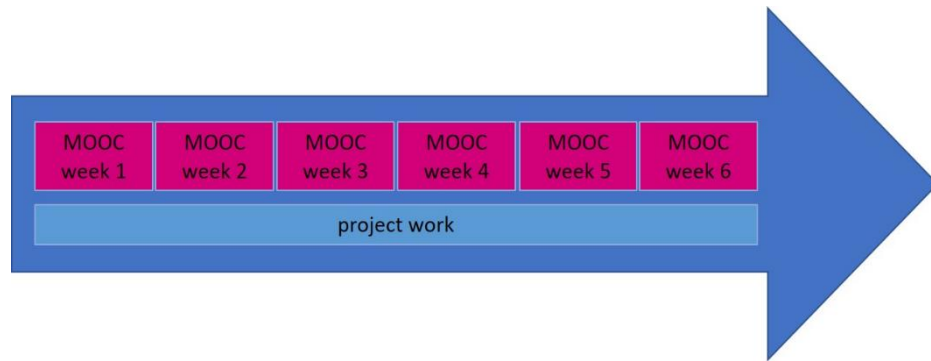
- What are your personal three key learnings from this course?
- What are the most important changes in how you think about research approaches to complex societal challenges?
- What learning will you be able to adopt in your work?
- What learning would you like to apply in the near future?
- What additional competencies and skills would you like to strengthen for effectively addressing societal challenges?
- What do you see as specific strengths and limitations of your discipline to engage with other disciplines and societal actors?



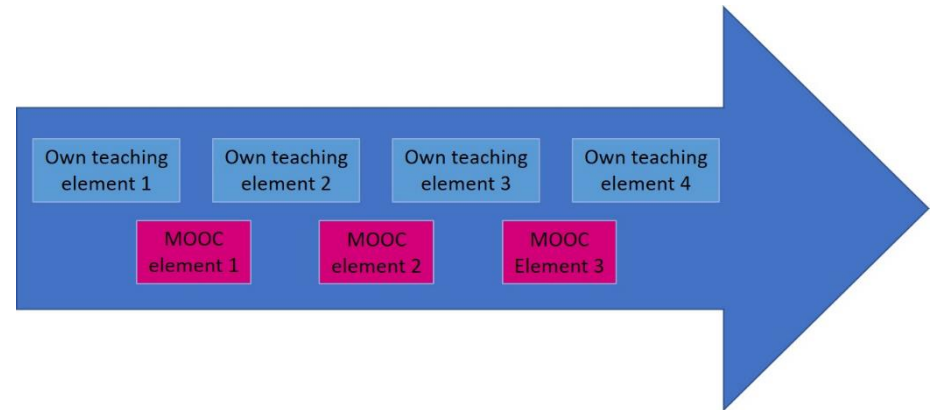
b) After an introduction, students work through one or two weeks of the MOOC, then discuss online or in-person (seminars, lectures), in small groups or plenary, then they work through the next 1-2 weeks of the MOOC, followed by discussion. Discussions can be based on the discussion prompts in the MOOC, and /or can be linked to the specific subjects and tasks of the curriculum, lecture or seminar.



c) Project groups work on a specific project, going through some or all three phases of a td-project. The MOOC serves as resource for designing, conducting, coordinating a research project that addresses societal challenges.



d) Combine own teaching material with specific elements of the MOOC (specific theory and methodology steps, one or several cases).



## 5) Course Overview – week by week

### WEEK 1: COMPLEX SOCIETAL CHALLENGES – A TOUGH NUT TO CRACK

#### Societal challenges and research

Discuss current societal challenges and get to know the educators.



- 1.1 SOCIETAL CHALLENGES – CHALLENGES FOR RESEARCH VIDEO (04:59)
- 1.2 SIMPLE, COMPLICATED, COMPLEX, WICKED ARTICLE
- 1.3 WHY TRANSDISCIPLINARY RESEARCH? VIDEO (04:42)

#### Setting the frame

Discuss your personal experiences and motivations to engage in TDR. Explore the features of this six-week course that combines theory and real-life cases in order to link existing knowledge with practice.



- 1.4 WHICH EXAMPLES COME TO YOUR MIND? DISCUSSION
- 1.5 HOW THIS COURSE WORKS ARTICLE

#### Cases – societal challenges addressed

Delve into the five cases that serve as real-life examples of transdisciplinary research during the whole course. Each of these cases is unique. They cover different topics in different regions of the world.



- 1.6 MAKING MIGRATION SAFER: WORKING ABROAD HAS RISKS VIDEO (03:55)
- 1.7 NOMAD HEALTH: HEALTHCARE FOR MOBILE PASTORALISTS VIDEO (04:30)
- 1.8 TACKLING WATER SCARCITY – PART 1: ADDRESSING THE EFFECTS OF CLIMATE CHANGE VIDEO (04:47)
- 1.9 ANTIMICROBIAL RESISTANCE: A WICKED CHALLENGE. VIDEO (05:02)
- 1.10 COPING WITH DECLINE IN A SWISS MOUNTAIN VILLAGE VIDEO (05:20)

#### Reflecting on the week

Reflect what you have learnt about the characteristics of today's complex challenges. Assess which questions you should be able to answer at the end of Week 1.



- 1.11 WHAT IS THE MOST IMPORTANT CHARACTERISTIC OF TODAY'S SOCIETAL CHALLENGES? POLL
- 1.12 WRAPPING UP ARTICLE

WEEK 2: TRANSDISCIPLINARITY – INTRODUCTION AND CLARIFICATION

## What is transdisciplinary research?

Get acquainted with transdisciplinary research: How do you define it? What goals and principles are there? And when is it especially meaningful to make use of it? You'll collect all the answers in the following activity.



- 2.1 **TRANSDISCIPLINARITY, AN APPROACH DEVELOPED IN DIFFERENT CONTEXTS** ARTICLE
- 2.2 **GOALS AND PRINCIPLES OF TRANSDISCIPLINARY RESEARCH** VIDEO (04:48)
- 2.3 **WHEN IS A TRANSDISCIPLINARY APPROACH PROMISING?** ARTICLE

## Basic concepts in transdisciplinary research

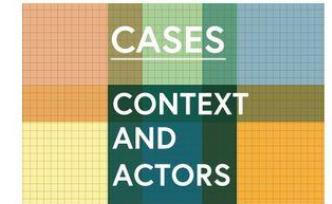
Discover basic concepts used in transdisciplinary research which will help you reflect on the cases and examples during the course as well as on your own experience.



- 2.4 **THREE TYPES OF KNOWLEDGE** VIDEO (06:06)
- 2.5 **STRIVING FOR THE COMMON GOOD?** ARTICLE
- 2.6 **SOCIETALLY RELEVANT AND SCIENTIFICALLY VALID** ARTICLE

## Cases – context and actors

Explore the five cases to gain interesting information on the context in which they are situated and the actors that are involved.



- 2.7 **MAKING MIGRATION SAFER – CONTEXT HOME AND HOST COUNTRIES** ARTICLE
- 2.8 **MOBILE PASTORALISTS AND COMMUNICATION CHALLENGES** VIDEO (10:14)
- 2.9 **TACKLING WATER SCARCITY – PART 2: ACTORS AND CONTEXT** VIDEO (06:25)
- 2.10 **THE INTERNATIONAL REGIME COMPLEX ABOUT ANTIMICROBIAL RESISTANCE** ARTICLE
- 2.11 **COPING WITH DECLINE: TOURISM DEVELOPMENT AND RESIDENTS** ARTICLE

## Reflecting on the week

Assess what you have learnt about the basics of transdisciplinarity. Identify the concepts with which you should be familiar at the end of Week 2.

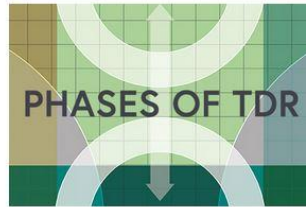


- 2.12 **BASICS OF TRANSDISCIPLINARITY** QUIZ
- 2.13 **WRAPPING UP** ARTICLE

WEEK 3: SETTING UP A TRANSDISCIPLINARY RESEARCH PROJECT

## Phases of transdisciplinary research

Explore the phases of a transdisciplinary research project and have a closer look into phase 1.



**3.1** THE STAGES OF TRANSDISCIPLINARY RESEARCH ARTICLE

**3.2** PHASE 1: PROBLEM FRAMING VIDEO (05:30)

## Important steps of a co-designing

When it comes to transdisciplinarity, the inclusion of different stakeholders is essential. Get an idea of co-designing a project and which steps and methods need to be considered.



**3.3** CONTEXT AND ACTOR ANALYSIS ARTICLE

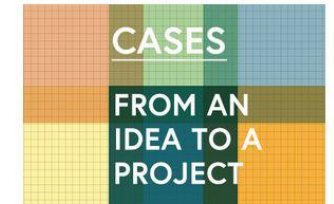
**3.4** CO-DESIGN, METHODS, EXAMPLES ARTICLE

**3.5** INTERNATIONAL RESEARCH PARTNERSHIPS VIDEO (08:32)

**3.6** HOW COULD YOUR PROJECT MAKE A DIFFERENCE? ARTICLE

## Cases – from an idea to a project

Having reflected how to develop transdisciplinary projects, apply your knowledge to the five cases.



**3.7** MAKING MIGRATION SAFER: SETTING UP COLLABORATION VIDEO (06:34)

**3.8** NOMAD HEALTH: AN ETHIOPIAN ONE HEALTH INITIATIVE VIDEO (07:59)

**3.9** WATER SCARCITY: DESIGN OF THE MONTANAQUA PROJECT ARTICLE

**3.10** ANTIMICROBIAL RESISTANCE: FROM A RESEARCH PROJECT TO WORK FOR THE UNITED NATIONS VIDEO (04:16)

**3.11** COPING WITH DECLINE: INITIATING THE BESTANDERMATT STUDY ARTICLE

## Reflecting on the week

Setting up a transdisciplinary research project involves many challenges. Assess your knowledge and reflect on what you have learnt about phase 1 of the TDR process.



**3.12** SETTING UP A TDR PROJECT: THE ESSENTIALS QUIZ

**3.13** WRAPPING UP ARTICLE



WEEK 4: KNOWLEDGE PRODUCTION

## Co-producing knowledge

Phase 2 of transdisciplinary projects is about jointly conducting research. Find out what this means, discuss what intensities mark the sequence of interactions, and reflect your own possible role.



**4.1** PHASE 2: JOINTLY CONDUCT RESEARCH VIDEO (05:36)

4.2 INTENSITIES OF INTERACTION ARTICLE

4.3 REFLECT ON YOUR ROLE DISCUSSION

## Interdisciplinary and participatory aspects

Gain insights on interdisciplinary and participatory aspects that distinguish transdisciplinary approaches from others. Discuss the process, the co-production of knowledge, and the cooperation with stakeholders.



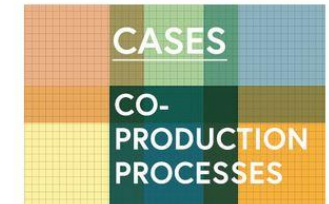
4.4 INTERDISCIPLINARY CO-PRODUCTION: COLLECTIVE INTELLIGENCE AND COGNITIVE JUSTICE ARTICLE

4.5 CO-PRODUCING KNOWLEDGE WITH TRAVELLING CONCEPTS ARTICLE

4.6 COOPERATION WITH STAKEHOLDERS ARTICLE

## Cases – co-production processes

Once again you are given the opportunity to link theoretical knowledge with the practical experiences of your educators. Do you recognise concepts you have learnt about this week in the cases?



4.7 MAKING MIGRATION SAFER: HOW THE PROJECT DEVELOPED VIDEO (04:56)

4.8 NOMAD HEALTH: CO-PRODUCTION BETWEEN ACADEMIC AND NON-ACADEMIC ACTORS ARTICLE

4.9 TACKLING WATER SCARCITY – JOINT VISIONING AND STRATEGY DEVELOPMENT VIDEO (08:42)

4.10 ANTIMICROBIAL RESISTANCE: INTERDISCIPLINARY APPROACH AND CO-PRODUCTION PROCESS ARTICLE

4.11 COPING WITH DECLINE: ENABLING LEARNING AND REFLECTION ARTICLE

## Reflecting on the week

In Week 4 you investigated the co-production of knowledge. Assess your grasp of the concepts, your own role, and reflect on what you have learnt about phase 2 of the TDR process.



**4.12** DECISIVE FACTORS WHEN JOINTLY CONDUCTING RESEARCH QUIZ

4.13 WRAPPING UP ARTICLE

WEEK 5: REAP THE REWARDS – JOINTLY PRODUCING OUTCOMES

## Co-production towards action and reflection

Synthesise the third and last phase of a transdisciplinary project and develop an understanding of upscaling transdisciplinarity as well as of what communicating beyond a project means.



**5.1** PHASE 3: EXPLORING IMPACT VIDEO (05:56)

**5.2** UPSCALING TRANSDISCIPLINARITY THROUGH SOCIETAL LEARNING VIDEO (05:59)

**5.3** COMMUNICATION BEYOND THE PROJECT ARTICLE

## Cases – results and ways of impact

Compare the theoretical insights with the results and impacts described in our five cases. How do you assess these? What questions come to your mind?



**5.4** LABOUR MIGRATION: RESULTS, PROCESS OF CO-PRODUCTION, IMPACT, AND BARRIERS ARTICLE

**5.5** NOMAD HEALTH: IMPACT AND RESULTS ARTICLE

**5.6** WATER SCARCITY: RESULTS OF THE PROJECT MONTANAQUA ARTICLE

**5.7** THE REGIME COMPLEX ABOUT ANTIMICROBIAL RESISTANCE – PROJECT OUTPUTS ARTICLE

**5.8** COPING WITH DECLINE: A RESPONSIVE, PARTICIPATORY APPROACH ARTICLE

## Reflecting on the week

What do you need to consider if you are jointly producing outcomes? Assess what you have explored in Week 5 and sum up what you have become familiar with.



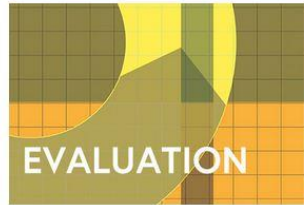
**5.9** PHASE 3 OF A TRANSDISCIPLINARY RESEARCH PROJECT QUIZ

**5.10** WRAPPING UP ARTICLE

WEEK 6: EFFECTS OF INVOLVEMENT: MOMENTS OF CHANGE

## Evaluation

Get an idea of how to evaluate transdisciplinary research projects and reflect on your own development during the last five weeks.

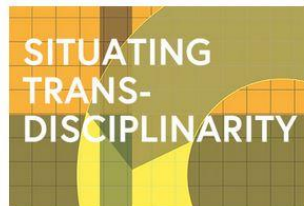


6.1 REFLECTING TRANSDISCIPLINARY RESEARCH PROJECTS VIDEO (06:02)

6.2 YOUR TURN: HOW YOU DEVELOPED DURING THE COURSE DISCUSSION

## Situating transdisciplinarity

Find out about what career paths of 'transdisciplinary' exist and figure out ethical dimensions of transdisciplinary research.

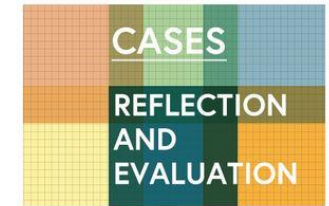


6.3 CAREER PATHS OF 'TRANSDISCIPLINARIANS' VIDEO (07:41)

6.4 ETHICAL DIMENSIONS OF TRANSDISCIPLINARY RESEARCH ARTICLE

## Cases – reflection and evaluation

Link the concepts of how to evaluate a transdisciplinary research project to the practical experiences in the case studies. Investigate and discuss how they are reflected and evaluated.



6.5 MAKING MIGRATION SAFER: REFLECTING KEY ELEMENTS ARTICLE

6.6 NOMAD HEALTH: REFLECTION AND EVALUATION ARTICLE

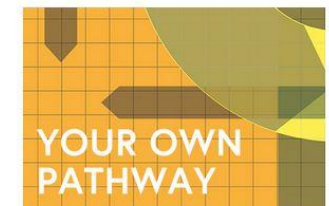
6.7 REFLECTIONS ON THE WATER SCARCITY CASES' PROCESS AND OUTCOMES ARTICLE

6.8 REFLECTING ON THE ANTIMICROBIAL RESISTANCE CASE: COLLABORATION WITH THE UN SYSTEM VIDEO (03:00)

6.9 COPING WITH DECLINE: REFLECTING BESTANDERMATT VIDEO (07:54)

## Transdisciplinary research: your own pathway

Assess what you have learnt about the effects of involvement and moments of change. Recapitulate the most important aspects of the course, and discuss how it might influence your future work.



6.10 YOUR FUTURE ENGAGEMENT DISCUSSION

6.11 GOODBYE VIDEO (02:10)