

Predicting Policy Decisions for Sustainability and their Influence on Business Strategy (PPD-IBS)

Syllabus Summer 2020

Prof. Dr. Katharina Hölzle & Prof. Detlef F. Sprinz, Ph.D.

Purpose and Content

This course combines predicting public decision-making on sustainability issues with their consequences for the business strategy of companies. This semester, we will specifically focus on upcoming political decisions of CO₂ / greenhouse gas pricing and their consequences for Reuther STC, a German “Mittelstand” steel manufacturing company. This course will admit a maximum of 20 master students from business administration, economics, political science, public administration, public management, and software systems engineering. Students will work individually as well as in interdisciplinary groups. The course comprises two main parts:

Part 1: You will be introduced to the “Predictioneer’s Game”, a rational choice-based simulation software developed by Bruce Bueno de Mesquita (New York University) to undertake predictions about the future of CO₂ / greenhouse gas prices in Germany or Europe. You will systematically assess one actor who takes part in the political decision-making on CO₂ / greenhouse gas prices and score this actor as relevant to the input structure of the Predictioneer’s Game. Subsequently, you will work in an interdisciplinary group of three students and forecast the outcome of the political negotiations, using the Predictioneer’s Game. Both the individual actor papers and the group simulation papers will be presented.

Part 2: You will use the results from part 1 and apply them to Reuther STC to derive practical recommendations for their future business strategy. To accomplish this, you will reason about companies’ perspectives on sustainability – why should companies be sustainable, how can sustainability be reflected in their business strategy? – before learning about strategic management tools, such as internal and external strategic analyses (SWOT analysis, gap analysis) and stakeholder analyses. You will subsequently take Reuther STC’s perspective and conduct the necessary analyses to understand how the firm is currently positioned. Using the prediction results on carbon/ greenhouse gas pricing from part 1, you will build different strategic future scenarios for the firm and derive recommendations on how to best implement the chosen strategy. In the final presentation of part 2, these recommendations will be presented to the partner firm.

The course is co-taught by Katharina Hölzle (HPI) and Detlef Sprinz (PIK & University of Potsdam); both instructors are prepared to teach the course digitally throughout the summer semester. The first session will start on Thursday, 23 April 2020, (9:00 s.t.- 10:00h) via Zoom (see details below). The introductory session will be recorded; by attending the session via Zoom, you consent to the recording and permit other students to watch the video of module 1.

Learning Goals

Knowledge & Understanding

- Background on political decision-making in medium-large actor settings,
- Understand the core inputs & outputs of a prediction model, and
- Understand the basics of sustainability in a corporate context & strategic management tools.

Applying, Analyzing & Evaluating

- Undertake predictions of multi-actors negotiations for a hitherto unresolved challenge of sustainability policy,
- Agree, among students and facilitated by the instructors, on standardized position input scales as relevant to running policy prediction software,
- Research, execute, and evaluate your own simulation model runs, and
- Use selected strategic management tools to analyze and evaluate the current situation of the partner firm, their strategy and the future perspective.

Creating

- Students develop their own research strategy amendable to using prediction tools, e.g., for subsequent use in their thesis as well as in a corporate or political context, and
- Build different scenarios for the partner firm and derive respective strategies for positioning the firm in a future-proof manner.

Logistics

Time:	Thursdays, 9:00-12:00h (max)
Zoom:	<i>first session only:</i> https://zoom.us/j/94501252362?pwd=ZDd3d1BuUHQ2S1hDdWlhdlLS2F2dz09 Meeting ID: 945 0125 2362 Password: 152620 Audio only: local number: https://zoom.us/u/adfuTj7i7r <i>Subsequent</i> session links will be published on →Moodle.
Location:	Until further notice the course will be taught digitally employing Moodle (content management) and Zoom (video/audio).
Prerequisites:	M.A. or Ph.D. student status in - Business, Economics, HPI, MasterIB, Master of Public Management, Political Science, Public Administration, or related discipline
Course Registration:	PULS → https://puls.uni-potsdam.de , Course: 430511 (you will be admitted to the waiting list). Students <i>without</i> access to PULS send a brief email to Montana Attwood (→Teaching Assistants) and indicate (1) name, program, email, (2) field und semester of studies, (3) why they cannot access PULS, and (4) why they wish to take this course.
Admission:	by discretion of the instructors.
Deadline for Dropping the Course:	07 May 2020

Credit Points:	6-9 ECTS (→Course Requirements and Grading)
Course website:	Moodle → https://moodle2.uni-potsdam.de/course/view.php?id=22893
Capacity:	max 20.
Instructors:	katharina.hoelzle@hpi.de & https://hpi.de/hoelzle/it-entrepreneurship.html dsprinz@uni-potsdam.de (include “PPD-IBS” in the subject line) & www.sprinz.org
Teaching Assistants:	Montana Attwood (attwood@uni-potsdam.de) Simon Hammer (sihammer@uni-potsdam.de) Freya Lenk (flenk@uni-potsdam.de)
Office Hours:	by appointment

Note

This course requires usage of Zoom and Moodle as instruments for our communication and interaction. This course is co-taught for the first time by Prof. Hölzle and Prof. Sprinz, and we anticipate some little hiccups here and there. We have been awarded a Tandem-Fellowships für Innovationen in der Hochschullehre by the Stifterverband für die Deutsche Wissenschaft e.V. and aim to deliver a high quality and innovative class to you. Your feedback will be instrumental in further developing this course. The instructors reserve the right to impose more stringent health policies, given specific circumstances.

We will use Moodle for contents management (admission by way of email to Montana Attwood) and Zoom (for video; access for the second session and thereafter will be published on →Moodle). In addition to a laptop (to run the Predictioneer’s Game), you will need a strong internet connection, a microphone, and a camera. Please make sure that your hardware avoids negative audio feedback; the use of headsets circumvents such problems.

If you are not actively speaking, please mute your microphone. To preserve bandwidth, please switch off the video function, except when making an active contribution. For the latter, please also “raise hand” in Zoom (→participants), and “lower” your hand once you have spoken. In case we experience systemic problems with bandwidth (or you individually), please use the call-in (phone) function of Zoom (they have German call-in numbers at →<https://zoom.us/j/7171717171>) and access the presentation files on →Moodle. We will also provide a brief guide to Zoom.

Code of Conduct

Given the current health circumstances, please regularly update yourself on and follow the policies in force at the University of Potsdam (→<https://www.uni-potsdam.de>) and in the State of Brandenburg (→<https://www.brandenburg.de>).

All students are assumed to be familiar with and will abide by the rules of proper academic conduct as specified by the University of Potsdam (→<https://www.uni-potsdam.de/am-up/2011/ambek-2011-01-037-039.pdf>), and for courses offered jointly

with other universities and academic programs, their rules apply in addition. You are expected to undertake all your *individual* assignments independently. For *group* assignments, resulting products shall be authored exclusively by all group members (with individual components clearly marked). Failure to comply with such rules may lead to the consequences stipulated → <https://www.uni-potsdam.de/ambek-2018-06-371-395.pdf> (German) and https://www.uni-potsdam.de/fileadmin01/projects/studium/docs/03_studium_konkret/07_rechtsgrundlagen/BAMAO_Lesefassung_EN.pdf (English) (§17).

Each written submission in this course shall include page 2 of → https://www.uni-potsdam.de/fileadmin01/projects/wisofak/Dateien/Studium/informationen_f_r_studierende_plagiatsoftware_april_2014.pdf (also available on the →Moodle website for this course)

Some students appear to have fallen in love with around-the-clock connectivity and social media. During our seminar sessions, whether we are on video or can return to in-person meetings later in the semester, we expect you to concentrate on this course.

All (personal) information and material that you encounter in conjunction with this course, on →Zoom, or on →Moodle shall be exclusively used for course-related purposes.

You have to read the EULA (End User License Agreement) of the Predictioneer's Game software, and you accept it automatically when submitting the simulation paper. You also accept all rules of academic conduct for the entire course by submitting the first written assignment, whether this is a paper or written test or quiz.

The information provided for this course by Reuther STC is to be treated confidentially as a non-disclosure agreement has been signed.

We expect you to respect Code of Conduct of the University of Potsdam concerning digital courses (to be published).

Students are expected to attend all sessions. If you fall ill, please inform both instructors with as much lead time as possible. In case you cannot submit assignments due to medical reasons, you must submit an appropriate medical certificate. In addition, in case you need accommodations ("Nachteilsausgleich"), please inform the instructors to this effect and provide the necessary documentation during the first three modules of this course.

In case observation of religious obligations interferes with academic deadlines, please will notify the instructor well ahead of the deadline.

Course Requirements and Grading

This course combines short lectures, videos, hands-on sessions in structured workshop-style settings, quizzes, breakout groups, paper assignments, as well as their presentation (see below for details). Students are expected to have read *all* assigned readings, done the homework, watched or listened to the material provided on

→Moodle and fulfilled the tasks or tests requested on →Moodle *prior* to class. Students are expected to ask questions to advance their understanding of the readings and other materials provided to enhance the usefulness of hands-on exercises the day *before* class, until 18:00h, via the question forum assigned to each module on Moodle.

Your grade comprises the following deliverables, depending on the number of ECTS:

Requirements	6 ECTS % of final grade	9 ECTS % of final grade
Fulfill tasks on Moodle	10%	6%
(Individual) actor paper	10%	8%
(Individual) actor paper presentation	5%	4%
(Group) simulation paper	20%	15%
(Group) simulation paper presentation	10%	7%
(Group) case study presentation	45%	40%
4 reflection memos (throughout the semester)	-	20%

Required Material

Textbook:

Bueno de Mesquita, Bruce. 2009. *The Predictioneer's Game: Using the Logic of Brazen Self-Interest to See and Shape the Future*. New York, NY: Random House.

The book is available both in print as well as electronically. Additional literature will be made available on Moodle.

Software:

Video Sessions: <https://zoom.us/>

Predicting software: <http://www.incidepro.us/> (Predictioneer's Game – software).

This course will benefit from licenses distributed to students free of charge from a tandem grant awarded by the Stifterverband to both instructors. Specific instructions will be distributed to students who are admitted to the course.

Course Overview

Module #	Date & Time	Topic	Learning goals students	Homework (in advance of the class meetings)
1	23 April 2020, 9:00-10:00h	Introduction and Overview of the Seminar	<ul style="list-style-type: none"> Understand the aim and topic of the course 	<ul style="list-style-type: none"> Read detailed syllabus & admission policy Students prepare questions related to course Zoom operational for the meetings
2	30 April 2020, 9:00-10h:00h	Introduction to Reuther STC GmbH by Christian Klingelstein, Reuther STC	<ul style="list-style-type: none"> Understand the company's perspective and the challenge of being sustainable 	<ul style="list-style-type: none"> Familiarize with Moodle Investigate company Prepare questions
3	30 April 2020, 10:15-11:30h	The Predictioneer's Game: Logic & Overview	<ul style="list-style-type: none"> Basic understanding of overall functions and functioning of the Predictioneer's Game 	<ul style="list-style-type: none"> Listen to audio introduction by Bruce Bueno de Mesquita (BdM) Readings according to syllabus
4	7 May 2020, 9:00-10:15h	The Predictioneer's Game: Input Data	<ul style="list-style-type: none"> Detailed understanding of the input data (conceptual) Corona policy decision as conceptual example 	<ul style="list-style-type: none"> Watch a set of videos from BdM Readings according to syllabus
5	7 May 2020, 10:30-12:00h	The Predictioneer's Game: Output Data	<ul style="list-style-type: none"> Detailed understanding of the output files (conceptual) Quiz on Predictioneer's Game 	<ul style="list-style-type: none"> Watch a set of videos from BdM Readings according to syllabus Read centrally provided <i>output</i> files for Module 5
6	14 May 2020, 9:00-10:15h	Prediction: Introduction to Carbon Pricing (t.b.c.)	<ul style="list-style-type: none"> Presentation of the particular issue to be predicted 	<ul style="list-style-type: none"> Readings according to syllabus (t.b.c.)
7	14 May 2020, 10:30-12:00h	The Predictioneer's Game: Running the Software	<ul style="list-style-type: none"> Interpreting outputs Learn veto rule 	<ul style="list-style-type: none"> Install Predictioneer's Game prior to class (1 per group)

				<ul style="list-style-type: none"> ▪ Submit PG input file to →Moodle ▪ Video on Veto Rule ▪ Readings according to syllabus
8	15 May 2020, 9:00-10:30h (mandatory additional meeting)	Prediction: Developing the Scales	<ul style="list-style-type: none"> ▪ Interactive development of the input scales, esp. position scale 	<ul style="list-style-type: none"> ▪ Students submit initial ideas on the position/influence scale to →Moodle ▪ Readings according to syllabus
9	28 May, 9:00-10:30h	Sustainability Strategies for Companies; Stakeholder Map	<ul style="list-style-type: none"> ▪ What is sustainability? ▪ Why should a company act sustainably? ▪ How do you measure sustainability? ▪ Creation of Stakeholder Map 	<ul style="list-style-type: none"> ▪ Readings according to syllabus ▪ Stakeholder Map
10	4 June 2020, 9:00-10:45h	Presentation: Individual Actor Papers	<ul style="list-style-type: none"> ▪ Presentation ▪ Q&A 	<ul style="list-style-type: none"> ▪ Submission of actor papers and presentation files to →Moodle ▪ Watch other student's presentations & prepare questions for Q&A
11	4 June 2020, 11:00-12:00h	Strategic Analysis & Scenario Building	<ul style="list-style-type: none"> ▪ SWOT ▪ Benchmark analysis ▪ Gap Analysis ▪ Scenario Analysis 	<ul style="list-style-type: none"> ▪ Readings according to syllabus ▪ Videos on Strategic Analysis & Scenario Analysis
12	11 June 2020, 9:00-10:15h	Presentation: Group Prediction Papers	<ul style="list-style-type: none"> ▪ Presentation ▪ Q&A 	<ul style="list-style-type: none"> ▪ Submission of simulation papers and presentation files to →Moodle ▪ Watch other student's presentations & prepare questions for Q&A
13	11 June 2020, 10:30-11:30h	Business Strategy & Strategy Implementation	<ul style="list-style-type: none"> ▪ Drafting an implementation plan for Reuther STC & Deriving To-Do List 	<ul style="list-style-type: none"> ▪ Upload SWOT Analysis for Reuther STC ▪ Read Article on Business Strategy ▪ HBR Strategy Case Study

14	18 June 2020, individually	Coaching the Teams	<ul style="list-style-type: none"> Receive feedback on final presentation and implementation plan 	<ul style="list-style-type: none">
15	23 June 2020, 15:15 – 16:45	Final Presentations and Barbecue	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Submit papers & video presentation if class has to be performed digitally to →Moodle

Assignments

Students who require 6 ECTS will write a total of 2 papers and submit or hold a total of 3 presentations:

- one individual actor paper on the price for carbon emissions in the EU or Germany (t.b.c.) and an actor paper presentation,
- one group simulation paper on the price for carbon emissions in the EU or Germany (t.b.c.) and a group simulation paper presentation, and
- one group presentation on business strategy & strategy implementation.

Students who require 9 ECTS have to fulfill all the above requirements; in addition, they will compose 4 short reflection memos throughout the semester.

The following information provide a brief overview. Actual assignments will be issued separately, well in time, and will be more detailed. Grading sheets will be issued alongside the assignments.

Actor and Simulation Papers & Presentations

Actor papers will be approx. up to 1,000 words in length, simulation papers will be approx. 1,000 words in length per group member. Details on the paper format and the submission procedure will be provided in the formal assignments. All papers and the presentation videos are due the day *prior* to the Q&A session in class (by live video, if we cannot hold sessions in class). Papers and presentation videos are submitted via →Moodle. Papers have to include student IDs and a brief description who did what (the latter refers only to group papers), the topic, and a word count on the cover page.

We will elaborate the relevant position scale for the prediction paper in class (Module 8), using working groups.

For the actor papers, please provide a brief historical overview of the actor, its central positions over time on the particular issue under investigation, and score the actor with respect to influence, position, salience, flexibility, veto status (as introduced in Modules 3-5, 7). Each of these scores has to be justified and sources fully referenced. The presentation of the actor paper has to be produced as a video and will be subject

to Q&A by your peers (Module 10). A guide how to create such a video presentation using MS PowerPoint can be found on →Moodle.

For the simulation paper, you will have to determine which actors to include (beyond the actors already covered by actor papers), potentially revise the scores offered in individual actor papers, and devise a strategy for employing the Predictioneer's Game, including robustness checks (variations of the input structure, e.g., on parameters where point values cannot be reasonably or reliably ascertained). Please appendix the input file(s) for the simulations as .txt file(s) and provide full references for all sources. The presentation of the simulation paper has to be produced as a video and will be subject to Q&A by your peers (Module 12). A guide how to create such a video presentation using MS PowerPoint can be found on →Moodle.

Final Presentation

For the final presentation, we expect you to prepare a 15 minutes presentation on the current state of the company with respect to sustainability (where they are at, what are their strengths and weaknesses, who are their important stakeholders?). Subsequently, you will develop 2 -3 possible future scenarios where the company might move towards. Please present at least one of these scenarios and describe what you are to recommend to the company in order to turn this scenario into reality.

Reflection Memos

The Reflection Memos helps you to reflect of what you have learned in this class by critically assessing your learning experience:

First step: Learning

What did you learn? What made sense to you? What were you reminded of? What were you interested in? Be specific!

Second step: Application

What could you apply? What kind of challenges did you have? How did you overcome them? What did you learn from practice? Be specific!

By reflecting your learning journey using the reflection memo you will

- retain what you have learned,
- get a deeper understanding, and
- have a record of key accomplishments for the future.

Team experience

- What experience have I made with the group? What went well, what was challenging? How did we solve problems?

Readings

Module 1: Introduction and Overview of the Seminar

Course Overview

Module 2: Introduction to Reuther STC GmbH

Summary on Reuther STC GmbH & check out website: www.reuther-stc.com

See Readings on →Moodle.

Module 3: The Predictioneer's Game: Logic & Overview

Bueno de Mesquita, Bruce. 2009. *The Predictioneer's Game: Using the Logic of Brazen Self-Interest to See and Shape the Future*. New York: Random House, ch. 3.

Bueno de Mesquita, Bruce. 2010. Judging Judgment. *Critical Review* 22 (4):355-388. doi: 10.1080/08913811.2010.541686.

Sprinz, Detlef F., Bruce Bueno de Mesquita, Steffen Kallbekken, Frans Stokman, Håkon Sælen, and Robert Thomson. 2016. Predicting Paris: Multi-Method Approaches to Forecast the Outcomes of Global Climate Negotiations. *Politics and Governance* 4 (3):172-187. doi: 10.17645/pag.v4i3.654.

Module 4: The Predictioneer's Game: Input Data

Bueno de Mesquita, Bruce. 2009. *The Predictioneer's Game: Using the Logic of Brazen Self-Interest to See and Shape the Future*. New York: Random House, ch. 4.

Bueno de Mesquita, Bruce. 2011. A New Model for Predicting Policy Choices. *Conflict Management and Peace Science* 28 (1):65-87. doi: 10.1177/0738894210388127.

Background paper on a potential Covid-19 decision in Germany (t.b.d.)

Module 5: The Predictioneer's Game: Output Data

Sprinz, Detlef F. and Bruce Bueno de Mesquita. 2015. Predicting Paris: Forecasting the Outcomes of UNFCCC COP-21 With the Predictioneer's Game. Potsdam and New York City: PIK - Potsdam Institute for Climate Impact Research and New York University, doi: 10.13140/RG.2.1.3722.1840.

Read output files for Module 5 (→Moodle).

Module 6: Prediction: Introduction to Carbon Pricing (EU/ Germany)

Reading material t.b.d.

Module 7: The Predictioneer's Game: Running the Software

Prepare an input file for the Predictioneer's Game based on

Bueno de Mesquita, Bruce. 2009. *The Predictioneer's Game: Using the Logic of Brazen Self-Interest to See and Shape the Future*. New York: Random House, 215-226.

Module 8: Prediction: Developing the Scales

In-Class Exercise with preparatory Homework Assignment

Bueno de Mesquita, Bruce. 2009. *The Predictioneer's Game: Using the Logic of Brazen Self-Interest to See and Shape the Future*. New York: Random House, ch. 5.

Module 9: Sustainability Strategies for Companies; Stakeholder Map

Reading material t.b.d.

Module 10: Presentation: Individual Actor Papers

Presentation: Individual Actor Papers

Module 11: Strategic Analysis & Scenario Building

Reading material t.b.d.

Module 12: Presentation: Group Prediction Papers

Presentation: Group Prediction Papers

Module 13: Business Strategy & Strategy Implementation

Reading material t.b.d.

Module 14: Coaching the Teams

Details to be announced

Module 15: Final Presentations and Barbecue

Details to be announced