# Modeling Political Decisions for Sustainability: EU Carbon Removals

## Fall (Winter) Term 2024/25

## Professor Detlef F. Sprinz, Ph.D.

#### **Purpose and Contents**

This seminar will introduce students to the Predictioneer's Game, an applied model of multi-party decision-making. Subsequently, students will apply their modeling skills to specific political decisions on sustainability. The domain of application for the decision forecasts will be the extent to which the 2040 greenhouse gas mitigation goals of the EU are allowed to be achieved by carbon removals. The language of instruction is English.

#### **Learning Goals**

#### Knowledge & Understanding

- background on political decision-making in medium-large actor settings,
- understand the core inputs & outputs of a prediction model, and
- decision-making on EU climate policies, esp. carbon removals.

#### Applying, Analyzing & Evaluating

- undertake predictions of multi-actor negotiations for a hitherto unresolved challenge of sustainability policy,
- agree, among students and facilitated by the instructors, on standardized position and potential influence (input) scales as relevant to utilizing a policy prediction software, and
- research, execute, and evaluate your own simulation model runs.

#### Competences

- Students develop their own research strategy amendable to using policy prediction tools, e.g., for subsequent use in their thesis as well as in a corporate or political context, and
- work individually as well as in groups on a diverse set of assignments.

#### Logistics

*Time:* → *Course Overview* (below)

Course website: Open.UP →https://openup.uni-

potsdam.de/course/view.php?id=496

(Non-University of Potsdam students need to register themselves with

their university email)

*Zoom:* →Open.UP

For participants from the University of Tokyo (Japan): All times are local Berlin time.

*Location:* → *Course Overview* (most sessions take place at Griebnitzsee, Building 6): 3.06.S25

Please regularly check  $\rightarrow$ Open.UP for additional announcements.

Prerequisites: Master, M.A., M.S., or doctoral student status, or special student status in Political Science, Public Administration, MAIB, MANIA, MPM, Sociology, Business Administration, Economics, and HPI; exceptions at the discretion of the instructor.

Course Registration: →https://puls.uni-potsdam.de, Course: 430511. Students without access to PULS send a brief email to the instructor and indicate (1) first & last name, (2) email (University of Potsdam email preferred), (4) field und semester of studies, (4) why they cannot access PULS, and (5) why they wish to take this course.

Deadline for Dropping the Course: 10 Nov. 2024

Credit Points: 5/6 or 9/10 (ECTS)

Capacity: 20 Contact Details:

detlef.sprinz@uni-potsdam.de (include "MPD4S Fall 2024" in the subject line)

www.sprinz.org

Office Hours: by appointment (preferably, please inquire after class or during breaks)

#### **Practicalities**

This course requires usage of Open.UP (a version of Open.UP) and Zoom for our remote communication and interaction. In addition, we may use other digital tools. We will use Open.UP for contents management (self-enrollment for students with a University of Potsdam account) and Zoom for video (as needed). You will need a computing device running Windows OS to run the software ("Predictioneer's Game") used for predicting negotiation outcomes.

#### **Code of Conduct**

If you are sick or have a communicable disease, incl. seasonal influenza, please stay at home and consult your medical doctor. If possible, connect by Zoom. If you miss an assignment, you must provide a medical doctor's certificate. Otherwise you receive zero points for the assignment.

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, German; https://www.uni-

potsdam.de/fileadmin/projects/studium/docs/03\_studium\_konkret/07\_rec htsgrundlagen/plagiatsrichtlinie\_EN.pdf, English), and for courses offered jointly with other universities and academic programs, their rules apply in addition; by default, the strictest rule applies. 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 in —https://www.uni-

potsdam.de/fileadmin/projects/ambek/Amtliche\_Bekanntmachungen/2024/Ausgabe\_17/ambek-2024-17-713-738.pdf (German) and  $\rightarrow$  https://www.uni-

potsdam.de/fileadmin/projects/studium/docs/03\_studium\_konkret/07\_rec htsgrundlagen/BAMAO\_Lesefassung\_EN.pdf (English) (§17).

Please consult →https://www.uni-

potsdam.de/fileadmin/projects/wisofak/Dateien/Studium/Informationen\_z um\_Einsatz\_von\_Plagiatssoftware\_20.11.2023.pdf in addition.

"Any use of AI to complete an assignment must be acknowledged in a citation that includes the prompt you submitted to the bot, the date of access, and the URL of the program"

(https://poorvucenter.yale.edu/Alguidance, 11 Oct. 2024). Failure to do so constitutes academic misconduct (see above).

All (personal) information and material that you encounter in conjunction with this course, on  $\rightarrow$ Zoom, or on  $\rightarrow$ Open.UP shall be exclusively used for course-related purposes; they are not part of the public domain. As we will have guest speakers and an issue of current politics as the domain of application, "Chatham House Rules" apply:

"When a meeting, or part thereof, is held under the Chatham House Rule, participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed."

(https://www.chathamhouse.org/about-us/chatham-house-rule, last accessed: 11 Oct. 2024).

Whenever you use outside services, you agree to abide by their respective End User License Agreement or equivalent. 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 automatically accept all rules of academic conduct for the entire course by submitting your first written assignment, whether this is a paper, presentation file, written test, quiz, or similar.

During our seminar sessions, I expect you to concentrate solely on this course, not other activities.

Students are expected to attend all sessions. If you fall ill, please stay at home and seek medical advice. In case you cannot submit assignments due to medical reasons, you must submit an appropriate medical certificate.

In case you request 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 notify the instructor well ahead of the deadlines.

For proper citation, please consult →https://poorvucenter.yale.edu/using-sources (English), https://www.uni-potsdam.de/de/cogsci-students/studienplanung/gute-wissenschaftlicher-praxis-plagiarismus (German).

#### Course Requirements and Grading

Students are expected to attend *all* classes and read *all* required readings *before* class so as to allow for informed discussions.

This course comprises a portfolio of assignments. Students receiving 5-6 ECTS will undertake the simulation paper and presentation as a *group* assignment; students wishing to receive 9-10 ECTS undertake the simulation paper and presentation as an *individual* assignment. Please inform the instructor how many ECTS you wish to receive by 05 Nov. 2024.

Requirements	Weight
Fulfill tasks and tests on Open.UP	20%
(Individual) actor paper	20%
(Individual) actor paper presentation	10%
(Group) simulation paper	35%
(Group) simulation paper presentation	15%

## Course Overview<sup>1</sup>

Module #	Date & Time	Topic	Learning goals students	Homework (in advance of the class meetings) & Activities
1	17 Oct. 2024, 8:45- 10:15h, Online	Zoom https://uni- potsdam.zoom- x.de/j/65175090636 Meeting ID: 651 7509 0636 Passcode: 4293571235	Understand the goals and topic of the course	Read detailed syllabus & admission policy Students prepare course-related questions
2	24 Oct. 2024, 8:45- 10:15h, 3.06.S25	The Predictioneer's Game: Logic & Overview	Basic understanding of overall functions and functioning of the Predictioneer's Game	Familiarize yourself with Open.UP Watch a set of videos by Bruce Bueno de Mesquita (BdM) Readings according to syllabus
3	24 Oct. 2023, 10:30- 12:00h, 3.06.S25	The Predictioneer's Game: Input Data	Detailed understanding of the input data (conceptual) Corona pandemic policy decision as conceptual example	Watch a set of videos by BdM Readings according to syllabus
	31 Oct. 2024	Public Holiday / Reformation Day	no classes	
4	07 Nov. 2024, 8:45- 10:15h, 3.06.S25	The Predictioneer's Game: Output Data	Detailed understanding of the output files (conceptual) Interpreting outputs Learn veto rule	Watch a set of videos by BdM Readings according to syllabus Read centrally provided output files

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 $<sup>^1</sup>$  The schedule is indicative and subject to short-term changes. Check the course site on  $\rightarrow$ Open.UP for updates and announcements as the instructor may include additional online events or change course times in line with the availability of guest speakers.

5	07 Nov. 2024, 10:30- 12:00h, 3.06.S25	The Predictioneer's Game: Running the Software	Get Predictioneer's Game running	Install Predictioneer's Game prior to class Submit Predictioneer's Game input file to →Open.UP Readings according to syllabus
	14 Nov. 2024	no class		
6	21 Nov. 2024, 8:45- 10:15h, 3.06.S25	Guest Lecture: Dr. Artur Runge-Metzger (Mercator Research Institute on the Global Commons and Climate Change, Berlin): Integrating Carbon Dioxide Removals into EU Climate Policy: Challenges and Governance Options		Readings according to syllabus
7	21 Nov. 2024, 10:30- 12:00h, 3.06.S25	Dr. Christian Hochleitner (European Commission, DG Klima, via Zoom): The EU and Carbon Removals (title t.b.c.)		Readings according to syllabus  Sign-Up for Assignment #1 (Actor Paper and Presentation) beginning 21 Nov. 2024
8	28 Nov. 2024, 8:45- 10:15h, 3.06.S25	Mr. Nicola Rega (Executive Director, Climate Change & Energy, cefic) (title t.b.c.)		Readings according to syllabus
9A	28 Nov. 2024, 10:30- 11:25h, 3.06.S25	Q&A on the Predictioneer's Game (Modules 2-4)		Post your advance questions to the forum on →Open.UP
9B	28 Nov. 2024, 11:35- 12:00h, 3.06.S25	Quiz		Bring proper digital devices with you and arrive early

10	5 Dec. 2024, 8:45- 12:00h, 3.06.S25	Developing the Prediction Scales	Interactive development of the input scales, esp. position scale (& potential influence)	Readings according to syllabus Students submit initial ideas on the position & influence scales to →Open.UP
11	5 Dec. 2024, 10:30- 12:00h, 3.06.S25	Guest Lecture: Dr. Felix Schenuit (SWP - German Institute for International and Security Affairs): Carbon Removal Policy in the EU (title t.b.c)		Readings according to syllabus
12	12 Dec. 2024, 8:45- 12:00h, 3.06.S25	Guest Lecture (t.b.c.)		
13	12 Dec. 2024, 10:15- 12:00h, 3.06.S25	Guest Lecture (t.b.c.)		Readings according to syllabus Form simulation groups. Sign-Up for Assignment #2 (Simulation Paper and Presentation)
14 & 15	19 Dec. 2024, 8:45- 12:00h, 3.06.S25	Presentations: Individual Actor Papers		Submission of actor papers and presentation files to →Open.UP by 18 Dec. 2024 (see Assignment #1 for details)
16	06 Jan. 2025, 18- 20h, <i>via</i> <i>Zoom</i>	Workshop: Q&A on Group Projects	Consultations by Simulation Group with the Instructor	Submit general and project- specific questions →Open.UP
17 & 18	09 Jan. 2025, 8:45- 11:30h, 3.06.S25	Presentations: Individual & Group Predictions	Student Presentations	Submission of presentation files to →Open.UP (see Assignment #2 for details)

19	09 Jan.	Course Review	
	2025,		
	11:40-		
	12:00h,		
	3.06.S25		
	16 Jan.		Assignment #2
	2025		Papers Due (see
			Assignment #2
			for details)

Additional modules may be scheduled at the discretion of the instructor. Please check announcements on →Open.UP for updates.

#### **Textbooks**

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

Helpful background readings on EU climate policy and carbon removals include Debelke, Jos. ed. 2024. *Delivering a Climate Neutral Europe*. London: Routledge.

doi.org/10.4324/9781003493730

Rayner, Tim et al. 2023. *Handbook on European Union Climate Change Policy and Politics*, Cheltenham: Edward Elgar Publishing, doi.org/10.4337/9781789906981

All other readings can be found on  $\rightarrow Open.UP$ .

#### **Assignments**

#### **All Assignments**

Assignments will be posted to  $\rightarrow Open.UP$  well ahead of the deadline. Submission deadlines are indicated in the  $\rightarrow Assignments$ .

Read the instructions carefully! All papers include your student ID number(s), assignment number (see overview), and word count on the first page. At a minimum, leave one inch margins from all four edges of A4-sized sheets. Footnotes shall be kept to a minimum. All text is 1.5-spaced, 11-12 point font (except for tables and graphs due to formatting). Paper length will be strictly enforced (the word count includes literally everything). Papers exceeding the word count by 10% or more will receive zero points. Papers shall be submitted – both in Word (check your word count!) **and** PDF format – via  $\rightarrow Open.UP$  by the due date and time ( $\rightarrow Assignment$ ). Extensions will be granted only under extraordinary circumstances, following timely written petition to the instructor.

In case of group assignments, all author ID numbers have to be listed,

including a short description who contributed what (or that everyone contributed to everything).

In case you cannot submit assignments due to medical reasons, you must submit a medical doctor's certificate to the instructor.

The allocation of individual students to actor papers and to simulation groups is at the discretion of the instructor.

Assignments will be posted to  $\rightarrow Open.UP$  and are outlined below.

#### Actor and Simulation Papers & Presentations

Actor papers will be up to 1,250 words in length, simulation papers will be up to 2,500 words in length per group member (for 9-10 ECTS: individual assignment with a maximum of 5,000 words). Details on the paper format and the submission procedure will be provided in the formal assignments. All papers and presentation files are due the day prior to the presentation + Q&A session in class. Papers and presentation files are submitted via →Open.UP. Papers have to include student IDs and a brief description who did what (the latter refers to group papers only), the topic, and the word count on the cover page.

We will elaborate the relevant position scale for the prediction paper (Assignment #2) in class (Module 7), 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 potential influence, position, salience, flexibility, veto status (as introduced in Modules 2-4). Each of these scores has to be justified and sources fully referenced. Your presentations will be subject to O&A by your peers (Modules 16-17).

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 parameter values where point values cannot be reliably ascertained). Please appendix the input file(s) for the simulations as .txt file(s) and provide full references for all sources. The simulation papers will be subject to Q&A by your peers (Module 19-20).

#### **Modules**

#### **Module 1: Course Overview**

Course Overview

#### Module 2: 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

Watch instructional video clips on →Open.UP

#### Module 3: 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

Watch instructional video clips on →Open.UP

#### Module 4: 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 4 ( $\rightarrow$ Open.UP). Watch instructional video clips on  $\rightarrow$ Open.UP

#### Module 5: The Predictioneer's Game: Running the Software

Purchase or get assigned a license, download and install the Predictioneer's Game. Install and read all information, incl. "Excel Tools," "Sample Test Sets," "User Guide,", FAQ, and the EULA The Dean's Office has agreed to the purchase of a limited number of licenses that will be shared among students.

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, 217 and upload it to →Open.UP.

#### Read

Bueno de Mesquita, Bruce. n.d. The Predictioneer's Game© Basic Software
Training Manual. Retrieved from The Predictioneer's Game (Software)
Guide to Downloading and Running the Predictioneer's Software →Open.UP
Guide to Organize the Excel Spreadsheets →Open.UP

# Module 6: Guest Lecture: Dr. Artur Runge-Metzger (Mercator Research Institute on the Global Commons and Climate Change, Berlin): Integrating Carbon Dioxide Removals into EU Climate Policy: Challenges and Governance Options

Smith, Stephen M. et al. 2024. *The State of Carbon Dioxide Removal - 2nd Edition*, Oxford: University of Oxford. doi:10.17605/OSF.IO/F85QJ

European Commission 2024. Securing Our Future - Europe's 2040 Climate Target and Path to Climate Neutrality by 2050 Building a Sustainable, Just and Prosperous Society. Strasbourg, COM(2024) 63 final, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52024DC0063

European Commission. 2024. Impact Assessment Report, Part 1,
Accompanying the Document Securing Our Future - Europe's 2040
Climate Target and Path to Climate Neutrality by 2050 Building a
Sustainable, Just and Prosperous Society. Strasbourg, COM(2024) 63
final, Part 1/5

https://eur-lex.europa.eu/resource.html?uri=cellar:6c154426-c5a6-11ee-95d9-01aa75ed71a1.0001.02/DOC\_1&format=PDF

European Commission. 2024. Impact Assessment Report, Part 3,
Accompanying the Document Securing Our Future - Europe's 2040
Climate Target and Path to Climate Neutrality by 2050 Building a
Sustainable, Just and Prosperous Society. Strasbourg, COM(2024) 63
final, Part 3/5

https://eur-lex.europa.eu/resource.html?uri=cellar:6c154426-c5a6-11ee-95d9-01aa75ed71a1.0001.02/DOC\_3&format=PDF

Module 7: Guest Lecture: Dr. Christian Hochleitner (European Commission, DG Klima, via Zoom): The EU and Carbon Removals (title t.b.c.)

Module 8: Guest Lecture: Mr. Nicola Rega (Executive Director, Climate Change & Energy, cefic) (title t.b.c.)

Module 9a: Q&A on the Predictioneer's Game (Modules 2-4)

Post your advance questions to the forum on  $\rightarrow$ Open.UP.

#### Module 9B: Quiz (covering Modules 2-4)

*In-Class Quiz* 

Note: Please bring a laptop or similar device with you for the in-class test. The electronic quiz on the Predictioneer's Game in Module 6B can only be accessed after having watched *all* audio and video files provided in preparation of Modules 2- 4. Please be aware and prepare accordingly in order to avoid any technical issues when the quiz is taken during our session.

#### Module 10: Developing the Prediction Scales

Students submit initial ideas on the position & potential influence scales to  $\rightarrow$ Open.UP.

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.

Watch instructional video clips on →Open.UP

Module 11: Guest Lecture: Dr. Felix Schenuit (SWP – German Institute for International and Security Affairs) (title t.b.c.)

Module 12: Guest Lecture: t.b.c.

Module 13: Guest Lecture: t.b.c.

Modules 14 & 15: Presentations: Individual Actor Papers

Presentations: Individual Actor Papers

### Modeling Political Decisions for Sustainability (Syllabus)

Please read all presentation files on  $\rightarrow$ Open.UP.

#### Module 16: Workshop: Q&A on Group Projects

Details to be announced on  $\rightarrow$ Open.UP

#### Modules 17 & 18: Presentations: Individual & Group Prediction Papers

Presentation: Group or Individual Prediction Papers

Please read all presentation file on  $\rightarrow$ Open.UP.

#### **Module 19: Course Review**