

Technology Dynamics MOT1412

Lecture IV

September 2022

Lecture IV

Trial exams

Follow-up Chapter 3

4. Regional, national and global innovation systems (B/F)

Introduction: Exercises for this afternoon

B/F blended learning/flipped classroom



Lecture IV

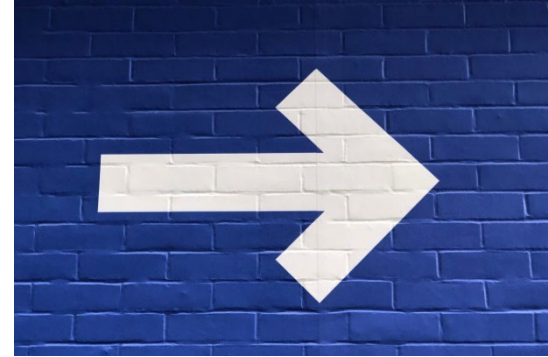
Trial exams

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Trial exams

Trial exams compulsory to take the exam

Registration

Trial exam I on October 3rd, 2022

For those online



Trial exams

Trial exams compulsory to take the exam

Registration

Trial exam I on October 3rd, 2022

For those online



Trial exams compulsory to take the exam

You will be only able to take the exam if you

- **register for trial exam I until September 30th, 2022,**
the latest,
- **take trial exam I on October 3rd, assess the exam of a fellow student and upload the required files on time,**
- **take trial exam II on October 24th, assess the exam of a fellow student and upload the required files on time.**

Trial exams

Trial exams compulsory to take the exam

Registration

Trial exam I on October 3rd, 2022

For those online



Registration

Registration is until September 30th, 2022, is compulsory.

Please

- install Feedback Fruits on Brightspace and
- upload an empty file.

Details about how to do it you find in the announcement on Brightspace.

If you encounter any problems with registering please contact the TAs well in advance of the deadline.

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Trial Exam I on October 3rd, 2022 I

Writing and uploading trial exam I:

- Writing the exam: **13.45h-15.15h (BE ON TIME!)**
- Required: **answers to every sub-question! If you do not know the answer write what you know and where you get stuck and why for every sub-question.**
- Uploading the exam: **15.20h the latest**

Trial exam I on October 3rd, 2022 II

Assessing another student's trial exam and uploading it

- Filling in your assessment: **15.45h-17.15h**
- Required: **full assessment!** If you do not know how to assess it discuss it with your fellow students or one of the professors or TAs.
- Uploading your assessment: **17.20h the latest**

Trial exams

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Registration

Trial exam I on October 3rd, 2022

For those online



For those online

You take the trial exams online at your own risk. Having internet problems is no excuse. The default is doing the trial exams on-campus.

As a service, during the assessment period (15.45h-17.15h) one TA will be occasionally online. Please be patient, because the TAs will first solve the problems students might have on-campus.

If you do not provide both files as required on time you do not fulfill the requirements for taking the exam.

Lecture IV

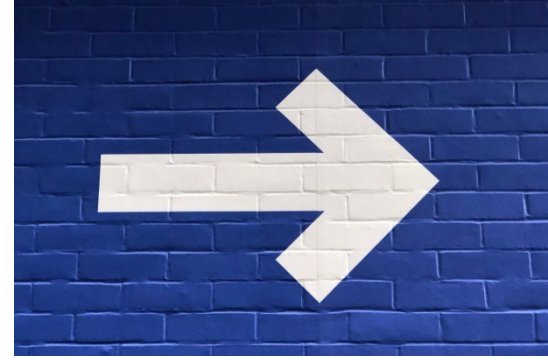
Trial exams

Follow-up Chapter 3

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Follow-up Chapter 3

Learning Goals

Russian biogas industry:
Focal technological and
geographical dimension

Russian biogas industry:
use of indicators and their
interpretation



Follow-up Chapter 3

Learning Goals

Russian biogas industry:
Focal technological and
geographical dimension

Russian biogas industry:
use of indicators and their
interpretation



Chapter 3: Learning Goals (Repetition)

- describe a technological innovation system (TIS)
- distinguish te. from sectors, industries and markets
- identify the context structures of the TIS
- identify a TIS including its innovative agents, other stakeholders, their relationships and the institutions
- analyse a TIS by pointing at weaknesses and strengths



Follow-up Chapter 3

Learning Goals

Russian biogas industry:
Focal technological and
geographical dimension

Russian biogas industry:
use of indicators and their
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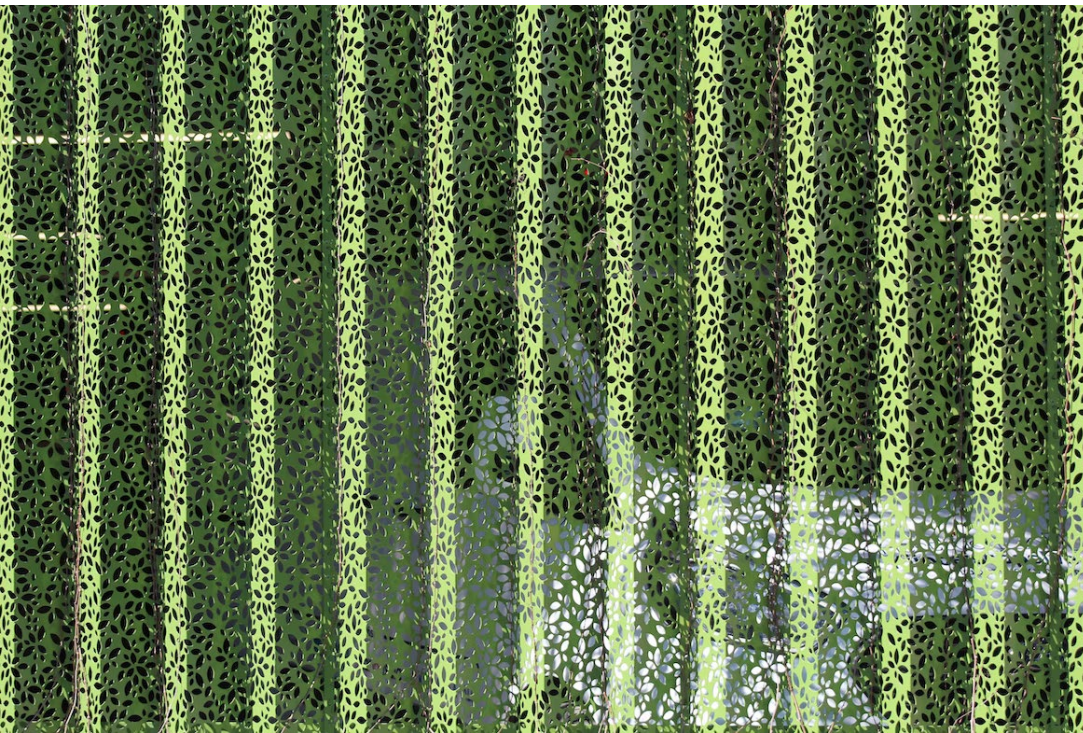


Russian biogas industry:

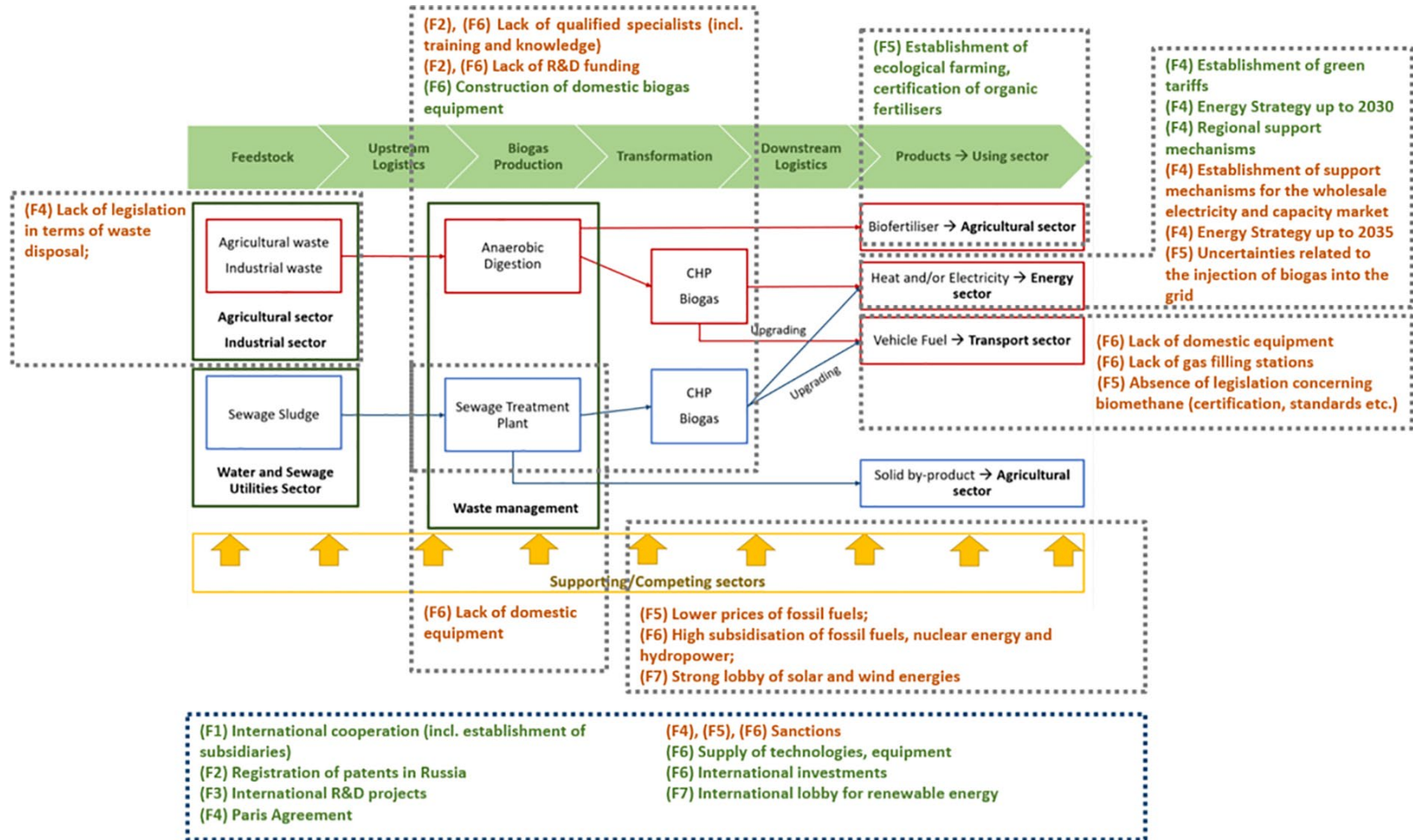
Focal technological and geographical dimension I

What is

- the focal technological dimension and
 - the focal geographical dimension
- of the Russian biogas industry?



Russian biogas industry: Focal technological and geographical dimension II



Nevzorova, 2022, p. 244

Follow-up Chapter 3

Learning Goals

Russian biogas industry:
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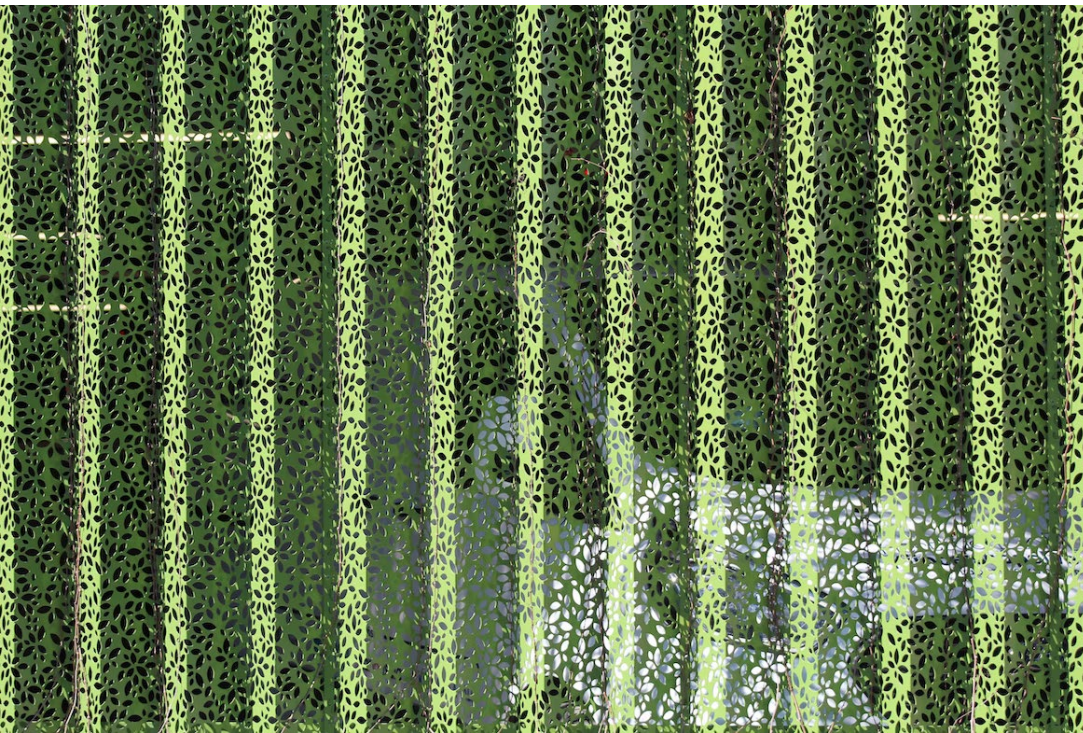


Russian biogas industry:

Use of indicators and their interpretation I

Which innovation indicators have been used by Nevzorova (2022) to analyse the Russian biogas industry?

Do you agree with the findings of the paper Nevzorova (2022)? Please particularly discuss the reliability of the indicators used?



Russian biogas industry:

Use of indicators and their interpretation II

Table 3
Overview of data collection used in the study.

Data collection method	Collected Data	Primary proxies of TIS system functions
Semi-structured interviews	Nine extended personal interviews with experts, the CEO of Russian biogas companies, chief engineers, program managers, and other relevant actors.	(F1) Entrepreneurial Activities (F6) Resource mobilization
Participant observation	The author carried out observations during the conferences dedicated to the Russian renewable energy industry. Approximately 20 h of participant observation; Extensive informal communication; Field notes, i.e. audio notes, PowerPoint presentations, handouts.	(F4) Guidance of the Search. (F7) Creation of Legitimacy
Patent data	The final database results in 964 patents	(F2) Knowledge development (F3) Knowledge diffusion
Literature review	eLIBRARY.RU database. The total volume of scholarly literature reached 2027 publications.	(F2) Knowledge development
Additional methods	Official reports, publications, presentations, and newsletters; Policy and legal documents; Publications by industry associations and non-governmental organizations, Newspaper articles and specialized journals Reports and analyses (incl. annual reports) Press releases, information on websites Online interactive seminars, interviews, workshops, and conferences	(F4) Guidance of the Search. (F5) Market Formation (F6) Resource mobilization

Nevzorova, 2022, p. 236

Indicators:

- quantitative (e.g. number of patents or patent citations)
- qualitative (e.g. answers to interview answers)

Skill: Asking for description, analysis, and opinions in exam questions I

Description: give definitions, depict a situation

Analysis: choose a framework of analysis and study the situation accordingly

Opinion: give your own judgement based on the analysis!



Examples from questions about Russian biogas industry

What is the focal technological dimension and the focal geographical dimension of the Russian biogas industry?

Which innovation indicators have been used by Nevzorova (2022) to analyse the Russian biogas industry?

Do you agree with the findings of the paper Nevzorova (2022)? Please particularly discuss the reliability of the indicators used?

Skill: Asking for description, analysis, and opinions in exam questions II

Description: give definitions, depict a situation

Analysis: choose a framework of analysis and study the situation accordingly

Opinion: give your own judgement based on the analysis!



Examples from questions about Russian biogas industry

What is the focal technological dimension and the focal geographical dimension of the Russian biogas industry? + time

Which innovation indicators have been used by Nevzorova (2022) to **analyse** the Russian biogas industry? + time

Do you agree with the findings of the paper Nevzorova (2022)?

Please particularly **discuss** the reliability of the indicators used? + t.

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Follow-up Chapter 3

4. Regional, national and global
innovation systems (B/F)

Introduction: Exercises for this afternoon

B/F blended learning/flipped classroom



Chapter 4: Learning Goals

- describe a regional, national or global innovation system
- distinguish them
- identify the (de-)agglomeration factors leading to geographical (de-)concentration of economic activities
- identify a geographical innovation system, innovative agents, other stakeholders, their relationships and the institutions
- analyse a geographical innovation system by pointing at weaknesses and strengths



4. Regional, National and Global Innovation Systems

Please explain the muddiest point you identified!



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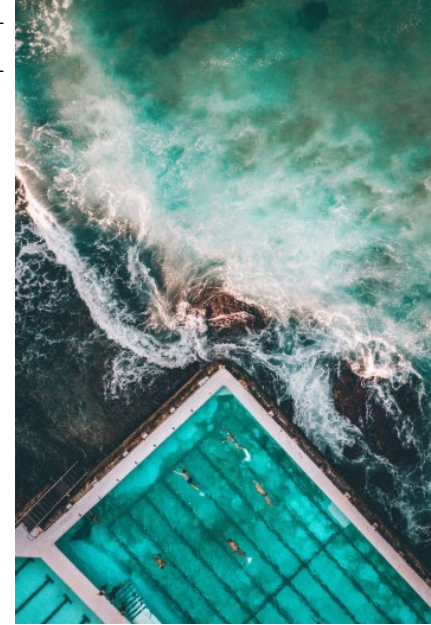
Introduction: Exercises for this afternoon I

Chapter 4, Exercise 3a (80 minutes)

Please split up the two cases, i.e.

- the case of the Bangalore software industry as analysed in Chamiade and Vang, 2018, and
 - the case of the Swiss national innovation system as analysed in Marxt and Brunner, 2013,
- between the group members.

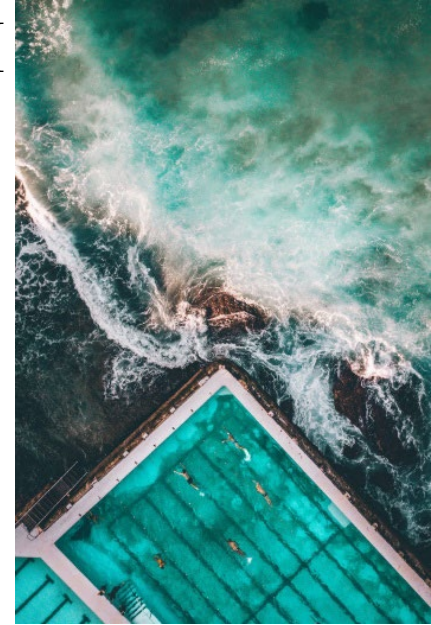
...



Introduction: Exercises for this afternoon I

Please

- individually quick-read the paper of the case you are assigned to;
- as a group figure out what the major concepts used, the research questions and resolutions of the papers are;
- as a group discuss how you can analyse the two cases using the knowledge you obtained in chapter 0 to 4;
- individually solve the case you are assigned to accordingly;
- as a group discuss the findings and compare the two cases



Feedback on what to do?

- discussing questions during lecture in pairs
- frontal lecture
- exercises in groups with TAs and professors present
- summarizing results of exercises by collecting information from students in the hall
- discussing results of exercises in fish bowl style
- trial exams
- others?

You might also wish to consider combinations!

Feedback		
Stop	Start	Continue
- ...	- ...	- ...
- ...	- ...	- ...



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