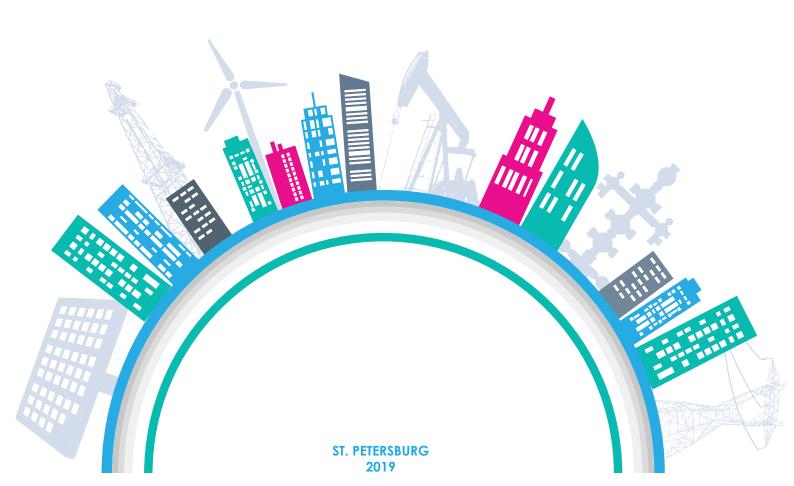


FINAL REPORT

THE 9th ST. PETERSBURG INTERNATIONAL GAS FORUM

YOUTH DAY ENERGY CHALLENGE



PARTNERS AND ORGANIZERS

KEY PARTNERS



















PARTNERS















GREETINGS FROM HES UNECON TEAM

THE YOUTH DAY of the St. Petersburg International Gas Forum is a project uniting representatives of business, academia and student community. The project's goal is to attract talented young people to the energy sector.

Over the past five years, we have been able to bring together more than 1000 participants from 45 countries, representing 75 educational institutions. We stay in touch with many of them. For these young people participation in the Youth Day was a powerful push to continue their careers in the energy and related industries.

In 2019, the project was implemented at a new level. The selection of candidates was stricter, so we can surely say that among our participants there were many representatives of the energy industry future elite. We are working to form and develop a professional community capable of finding new groundbreaking ideas and solutions to the most pressing issues.

In the anniversary year, a team of organizers from the Higher Economic School of St. Petersburg State University of Economics upgraded the event by introducing new formats and launching the **ENERGY CHALLENGE**.

We paid special attention to participants' training. For this purpose we created an educational online platform called Virtual Academy, where experts from leading international energy companies shared their knowledge and experience with students. Following the results of the training 60 best students were selected and invited to St. Petersburg to participate in the Youth Day events.

New formats of events were also waiting for our participants at the St. Petersburg International Gas Forum on October 1-3, 2019. This was an intensive program that included team building, quest within the SPIGF exhibition, business game "Charge the

City" and traditional Off-tie Meeting with top executives of energy companies.

This year's success was achieved thanks to the financial and expert support of IBC member companies: Gazprom, Gasunie, OMV, Uniper, Wintershall Dea, Shell, Energy Delta Institute, European School of Management and Technology, Schneider Electric, Siemens and Verbundnetz Gas.

The Youth Day team thanks SPIGF organizers and all partners for their willingness to look for new ways and means of cooperation with universities. We are sure that such collaboration will reinforce the energy industry with new professional and talented personnel.

SEE YOU IN 2020!



ПРИВЕТСТВИЕ ОТ КОМАНДЫ ВЭШ СПБГЭУ

МОЛОДЁЖНЫЙ ДЕНЬ Петербургского международного газового форума — это проект, объединяющий представителей бизнеса, академической среды и студенчества. Проект нацелен на привлечение талантливой молодёжи в энергетическую отрасль.

За пять лет нам удалось собрать более 1000 участников из 45 стран мира, представляющих 75 учебных заведений. Мы поддерживаем связь со многими из них. Для ребят участие в Молодёжном дне стало мощным толчком, позволившим продолжить карьеру в сфере энергетики и в смежных отраслях.

В 2019 году проект прошёл на совершенно новом уровне. Был проведён более строгий отбор кандидатов, поэтому смело можно сказать, что среди участников находятся представители будущей элиты энергетической отрасли.

Мы хотим сформировать и развить профессиональное сообщество для поиска новаторских идей и решений.

В юбилейный год организаторы из Высшей экономической школы СПбГЭУ улучшили программу мероприятий, обновив форматы и запустив **«ЭНЕРГЕТИЧЕСКИЙ ЧЕЛЛЕНДЖ»**.

Особое внимание мы уделили подготовке участников. Для этого была создана образовательная онлайн платформа Виртуальная академия, где эксперты из ведущих международных энергетических компаний поделились своими знаниями и опытом со студентами. По итогам обучения 60 лучших студентов были отобраны и приглашены в Санкт-Петербург для участия в Молодёжном дне.

Новые форматы мероприятий также ожидали наших участников на площадке Петербургского международного газового форума 1-3 октября 2019 г. Программа была насыщенная: тренинг по командообразованию, квест по выставке ПМГФ, бизнес игра «Заряди свой город» и традиционная встреча в формате «без галстуков» с первыми лицами энергетических компаний.

Успех проекта в этом году стал возможен благодаря финансовому и экспертному участию компаний-членов МДК: Газпром, Gasunie, OMV, Uniper, Wintershall Dea, Shell, Energy Delta Institute, European School of Management and Technology, Schneider Electric, Siemens и Verbundnetz Gas.

Команда Молодёжного дня выражает благодарность площадке ПМГФ и всем партнёрам за готовность искать новые пути и способы сотрудничества с вузами. Уверены, что такое взаимодействие будет плодотворным и позволит усилить энергетическую отрасль новыми профессиональными и талантливыми кадрами.

ДО НОВЫХ ВСТРЕЧ В 2020 ГОДУ!

MESSAGE 6 7 TOCAAHUE

MESSAGE FROM PARTICIPANTS



Anton SOKOLOV
Ufa State
Petroleum
Technological
University (Russia)

THE YOUTH DAY or rather days of the St. Petersburg International Gas Forum 2019 have finished.

DAY 1.

Team building. We built a Goldberg machine. Everything worked out perfectly. There are some conclusions: even such a fun project requires a division into working groups, terminological uniformity (especially when engineers make minority in the team), ability to think outside the box, and (which is very important!) the presence of a person able to critically evaluate the outcome.

Presentation. The teams have been mixed. We have prepared a hypothetical project presentation on a given topic, uniting four companies participating in the exhibition program. We managed to finish quite quickly by distributing the work flows in the team.

DAY 2.

Solving a case. Probably the most intense but interesting day. The teams have been mixed again. Representatives of five countries and a dozen of universities stuck to our group. The task was quite interesting. From the technical standpoint, I can't say that it was especially difficult, but from the point of view of the guys responsible for the financial part of the solution, the situation, I think, looked different.

In the afternoon, the initial conditions of the case began to be changed regularly under the influence of various "Black Swans". The technical model we developed turned out to be so valid and flexible that serious

changes in the financial model and strategy for stakeholders were not required. All our difficulties (technical, financial, corporate) were resolved by Irina Kuznetsova, an expert who had chosen our team. Irina represented Schneider Electric at the Forum. Excellent teamwork was slightly compromised by problems with time management. But in the end we took a well-deserved "bronze".

DAY 3.

The Off-tie Meeting with top management of Gazprom, Shell, Wintershall Dea, OMV, Uniper and Gasunie went very far from a simple Q&A format. This year it also was similar to a business game: the newly mixed teams received a topic for discussion in advance, in which they had to think over the questions for their CEO, and then present the results of the discussion within a three-minute speech. Mario Mehren, Director General of Wintershall Dea, joined our team for 15 minutes, and has consistently been enduring a flurry of difficult questions regarding the environmental side of oil and gas majors' activities.

To imagine another possibility of an open and free dialogue that would have been lasting for one and a half hour with the heads of energy majors is difficult for me today. The Off-tie Meeting is, undoubtedly, one of the brightest events of the Youth Day.

Once again, I would like to thank all the organizers, moderators and experts, to express my admiration for the guys I was lucky enough to work with in one team, and to thank the top managers of oil and gas companies who have sacrificed their most expensive and irreplaceable resource for us: time.

I hope that we will all be able to meet at the Youth Day of SPIGF 2020!

МОЛОДЁЖНЫЙ ДЕНЬ ИЛИ, СКОРЕЕ, дни Петербургского международного газового форума 2019 завершились.

ДЕНЬ 1.

Тимбилдинг. Строили машину Голдберга. Все получилось отлично. Несколько выводов: даже такой, казалось бы, шутейный проект, требует разделения на рабочие группы, единства терминологии (особенно важно, когда инженеры в команде в меньшинстве), умения мыслить вне заданных рамок, и (очень важно!) наличия в команде человека, который бы мог дать критическую оценку получающейся конструкции.

Презентация. Команды перемешали. Готовили презентацию гипотетического проекта на заданную тему, объединяющего четыре компании из числа участвующих в выставочной программе. Справились достаточно быстро, распределив между собой направления работы.

ДЕНЬ 2.

Решение кейса. Самый, наверное, напряженный, но интересный день. Команды перемешали еще раз. В нашей подобрались представители пяти стран и десятка университетов. Задание было достаточно интересным, с технической стороны не сказать, что особенно сложным, но с точки зрения ребят, отвечавших за финансовую часть решения, ситуация, я думаю, выглядела иначе.

Во второй половине дня исходные условия кейса стали регулярно меняться под воздействием различных «черных лебедей». Разработанная нами техническая модель оказалась валидной и гибкой настолько, что серьезные изменения финансовой модели и стратегии в отношении стейкхолдеров не потребовались. Все наши затруднения (технические, финансовые, корпоративные) помогла

разрешить эксперт, выбравший нашу команду, Ирина Кузнецова, представлявшая на Форуме компанию Schneider Electric. Прекрасная командная работа была чуть подпорчена проблемами с тайм-менеджментом – в

итоге заслуженная «бронза».

ПОСЛАНИЕ ОТ

УЧАСТНИКОВ

ДЕНЬ 3.

«Встреча без галстуков» с топ-менеджерами Газпрома, Shell, Wintershall Dea, OMV, Uniper и Gasunie очень далеко ушла от простого формата (вопрос-ответ). В этом году она также напоминала деловую игру: вновь перемешанные команды заранее получили тему для обсуждения, в рамках которой нужно было продумать вопросы для своего СЕО, а после в рамках трехминутного спича презентовать результаты обсуждения. К нашей команде на целых 15 минут присоединился генеральный директор Wintershall Dea Марио Мерен, стойко перенесший шквал не самых простых вопросов, касающихся экологической стороны деятельности нефтегазовых мейджоров.

Представить себе иную возможность открытого и свободного полуторачасового общения с руководителями энергетических мейджоров мне на сегодняшний день затруднительно – Off-tie Meeting – это, безусловно, одно из самых ярких событий Молодежного дня.

Еще раз хочу поблагодарить всех организаторов, модераторов, экспертов, выразить свое восхищение ребятами, с которыми мне посчастливилось работать в одной команде, и признательность топменеджерам нефтегазовых компаний, которые пожертвовали ради нас свой самый дорогой и невосполнимый ресурс: время.

Надеюсь, что мы все сможем встретиться на Молодежном дне ПМГФ 2020!

ABOUT PROJECT 8 9 O ПРОЕКТЕ

ABOUT YOUTH DAY PROJECT

THE YOUTH DAY was organized for the first time in 2015 in the framework of the 5th St. Petersburg International Gas Forum (SPIGF). After the first edition great success, it became an annual event included in the SPIGF official program.

In 2019, the Youth Day was held for the fifth time in updated format of the **ENERGY CHALLENGE**.

The Youth Day project provides an interactive educational platform that brings together industry experts and talented students from around the world for energy business knowledge transfer and searching for new ideas and solutions.

It is organized by Higher Economic School of St. Petersburg State University of Economics (HES UNECON) with financial support of IBC member companies (2019): Gazprom, Gasunie, OMV, Uniper, Wintershall Dea, Shell. Partner assistance was provided by Energy Delta Institute, European School of Management and Technology, Schneider Electric, Siemens and Verbundnetz Gas. The project is divided into two stages:

Virtual Academy

3-month online training program

Youth Day within the 9th St. Petersburg
International Gas Forum

3-day interactive events

Participants of the Youth Day are students from different universities from different countries, leading industry experts and top-managers of international energy companies, as well as academia representatives.

More than 500 applications were submitted for participation in the Youth Day 2019. 223 students were enrolled to the Virtual Academy. Finally, 60 best students were invited to St. Petersburg to participate in the Youth Day of the 9th St. Petersburg International Gas Forum on October 1-3, 2019.



О ПРОЕКТЕ МОЛОДЕЖНЫЙ ДЕНЬ



молодёжный день впервые был проведен в 2015 году в рамках V Петербургского международного газового форума (ПМГФ). После большого успеха первого мероприятия, Молодёжный день стал ежегодным событием, включенным в официальную программу ПМГФ.

В 2019 году Молодёжный день прошёл в пятый раз в обновленном формате **ЭНЕРГЕТИЧЕСКИЙ ЧЕЛЛЕНДЖ**.

Целью Молодёжного дня является создание интерактивной образовательной площадки, объединяющей экспертов отрасли и талантливых студентов со всего мира для передачи знаний об энергетическом бизнесе и поиска новых идей и решений.

Организатором выступила Высшая экономическая школа Санкт-Петербургского государственного экономического университета (ВЭШ СПбГЭУ) при финансовой поддержке компаний - членов МДК: Газпром, Gasunie, OMV, Uniper, Wintershall Dea, Shell, а также в партнёрстве с Energy Delta Institute, European School of Management and Technology, Schneider Electric, Siemens и Verbundnetz Gas.

Проект состоит из двух этапов:

Виртуальная академия

3х-месячная образовательная онлайн программа

Молодёжный день в рамках IX Петербургского международного газового форума

3 дня интерактивных мероприятий

В Молодёжном дне принимают участие студенты различных вузов мира, ведущие отраслевые эксперты и топ-менеджеры международных энергетических компаний, а также представители академического сообщества.

На участие в Молодёжном дне 2019 было подано более 500 заявок. 223 студента были зачислены в Виртуальную академию. Наконец, 60 лучших студентов были приглашены в Санкт-Петербург для участия в Молодёжном дне IX Петербургского международного газового форума 1-3 октября 2019 года.

CONTENT Содержание

ORGANIZERS & PARTNERS | 2 Организаторы и партнёры

GREETINGS FROM HES UNECON TEAM | 4 Приветствие от команды ВЭШ СПБГЭУ

MESSAGE FROM PARTICIPANTS | 6
Послание от участников

ABOUT YOUTH DAY PROJECT | 8
О проекте Молодёжный день

ENERGY CHALLENGE STEPS | 11 Этапы проекта

VIRTUAL ACADEMY | 12
Виртуальная академия

OVERVIEW OF WEBINARS | 14 Обзор вебинаров

BEST STUDENTS' PROJECTS | 20 Лучшие студенческие проекты





22 | YOUTH DAY, OCTOBER 1 Молодёжный день, 1 октября

28 | YOUTH DAY, OCTOBER 2 Молодёжный день, 2 октября

32 | YOUTH DAY, OCTOBER 3 Молодёжный день, 3 октября

38 | ENERGY CHALLENGE PARTICIPANTS Участники энергетического челленджа

44 | BUSINESS PARTICIPANTS Участники от организаций

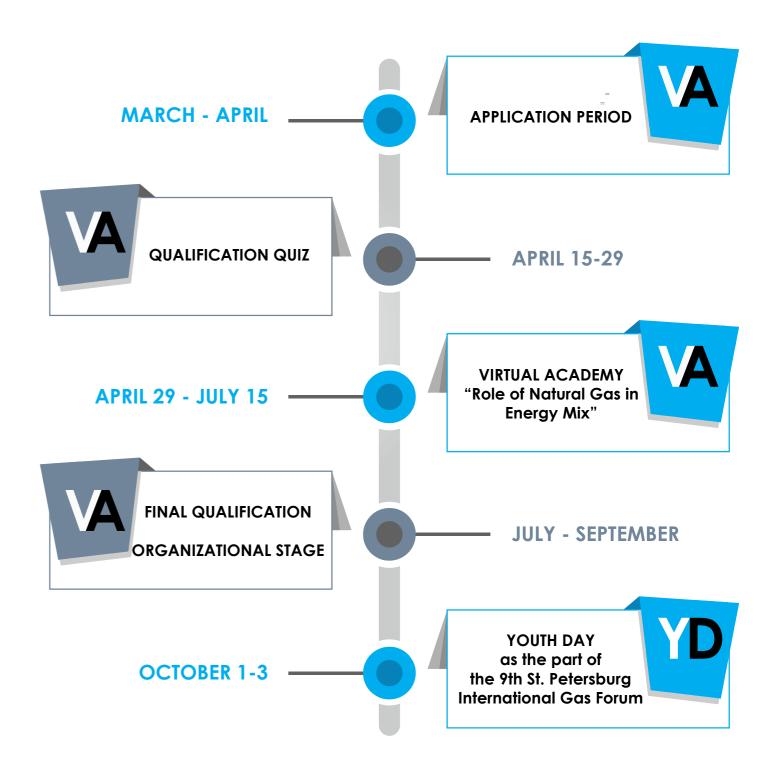
46 | ORGANIZERS Организаторы

48 | YOUTH DAY IN WEB Молодёжный день в сети

50 | PARTICIPANTS' FEEDBACK
Отзывы участников

52 | ENERGY CHALLENGE 2.0 Энергетический челлендж 2.0

ENERGY CHALLENGE STEPS Этапы проекта



VIRTUAL ACADEMY 12 13 ΒΗΡΤΥΑΛЬΗΑЯ ΑΚΑΔΕΜΗЯ

VIRTUAL ACADEMY

The Virtual Academy is an online educational program. In 2019 we received more than 500 applications, 223 participants were enrolled. The Academy included 5 study modules:

Natural gas 1.0.
 Strategies and business models
 Market trends
 Tech trends
 Sustainable energy transition

Participants had access to all learning materials and video lectures via the Moodle platform. The study process included:

15 interactive webinars with Q&A sessions/ quizzes and voting held by the professionals from partner organizations: UNECON, Gazprom, Wintershall Dea, Schneider Electric, Verbundnetz Gas, Gasunie, Energy Delta Institute, OMV, ESMT and Siemens.

2 video lectures provided by Uniper and University of Applied Science of Germany.

3 individual challenges to test the knowledge received.

Final #project_challenge to present students' individual projects in energy sphere.

Additional study materials provided for each study module.

60 best students were selected and invited to the Youth Day of the 9th St. Petersburg International Gas Forum.

ВИРТУАЛЬНАЯ АКАДЕМИЯ

Виртуальная Академия - это образовательная онлайн программа. В 2019 году на программу было подано более 500 заявок и зачислено 223 участника. Академия состояла из 5 учебных модулей:

Природный газ 1.0.
 Стратегии и бизнес-модели
 Рыночные тренды
 Технологические тренды
 Переход к устойчивой энергетике

Участники имели доступ к учебным текстовым и видеоматериалам по заданным темам на платформе Moodle. Учебный процесс включал в себя:

15 интерактивных вебинаров с опросами, сессиями «вопрос/ответ» и голосованием, которые проводили эксперты из партнерских организаций: СПбГЭУ, Газпром, Wintershall Dea, Schneider Electric, Verbundnetz Gas, Gasunie, Energy Delta Institute, OMV, ESMT и Siemens.

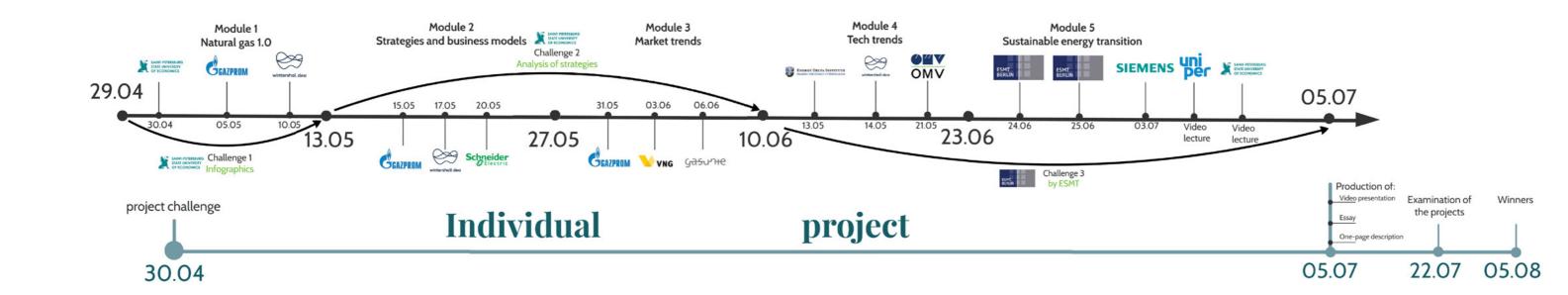
2 видео лекции от Uniper и Университета прикладных наук Германии.

3 задачи на проверку полученных знаний.

Финальное задание #project_challenge – студенческие индивидуальные проекты в области энергетики.

Дополнительные учебные материалы к каждому образовательному модулю.

60 лучших студентов были отобраны и приглашены на Молодёжный день IX Петербургского международного газового форума.



OVERVIEW OF WEBINARS

MODULE 1. NATURAL GAS 1.0.

INTRODUCTORY WEBINAR. **WORLD ENERGY BALANCE**

Вводный вебинар, Мировой энергобаланс

Pavel METELEV, UNECON

Basic definitions. Types of energy. Qualitative and Quantitative units, conversion. World energy balance: reserves, supply, demand.

NATURAL GAS VALUE CHAIN **AND PRICING**

Цепочка создания стоимости природного газа и ценообразование

Irina MIRONOVA, Gazprom

Natural gas value chain: upstream, midstream, downstream. Natural aas price and its main components. Gas pricing mechanisms, supply,

NATURAL GAS AS A PILLAR OF **ENERGY TRANSITION**

Природный газ как основа энергетического перехода

Julia BOERMANN, Wintershall Dea

Energy source types. Energy mix. CCS technology.

MODULE 2. STRATEGIES & BUSINESS MODELS

GAZPROM ON STRATEGY

ПАО «Газпром» о стратегии

Irina MIRONOVA, Gazprom

Resources of the future. Key gas export routes: looking west and east. Investment in sustainable development of gas business. Leading in trendsetting technology projects (stages in reaching climate change goals). Gazprom at a glance.

WINTERSHALL DEA ON STRATEGY SCHNEIDER ELECTRIC ON

Wintershall Dea o стратегии

Julia BOERMANN, Wintershall Dea

Strong global portfolio. Implementing successmeasuring techniques. Becoming a listing company, new investors' attraction.

STRATEGY

Schneider Electric o стратегии

Gilles NOUGIE, Schneider Electric

Power Systems Design optimization. Seeking new efficiencies through Diaital in the Oil&Gas and Petrochemicals industry. AVEVA PRISM - Asset Predictive Analytics. Two levels for the deployment of digital applications.

MODULE 3. MARKET TRENDS

GAZPROM ON LNG MARKET TRENDS

Газпром о тенденциях на рынке СПГ

Irina MIRONOVA & Alexey KOSHELETS, Gazprom

Future of the LNG sector development: trends and perspectives. What is the carbon footprint of pipeline gas and LNG? Is LNG a "premium" product with high added value?

MIDSTREAMERS IN EUROPEAN **GAS MARKETS: RISKS AND OPPORTUNITIES**

Мидстримовые компании на европейских газовых рынках: риски и возможности

Thomas WITT. VNG

VNG at a glance. Brief history of VNG & partnership with Russia. European Gas Market, LNG in Germany, Key Messages.

GAS HUB DEVELOPMENT. KEY TRENDS IN GAS TRADING IN EUROPE

Развитие газовых хабов. Основные тенденции в торговле газом в Европе

Sybren de JONG, Gasunie

TTF - the leading and pricesetting gas hub in Europe and beyond. Market liberalization and unbundling. Conditions to be met for a successful trading place. Comparing gas-trading places. Future developments.

MODULE 4. TECH TRENDS

WILL THE ROLE OF HYDROGEN GROW?

Возрастёт ли роль водорода?

Catrinus JEPMA, EDI

On the ratio of energetic electrons and molecules. Perspectives on energy greening. Power-to-gas: current cost price data. The scope of power-to-gas.

DIGITALIZATION

Цифровизация

Patrick Von PATTAY, Wintershall Dea

What is diaitalization? How to make digitalization work for you? How to develop a digital strategy? Digital skills development.

THE ROLE OF GAS IN FUTURE **MOBILITY**

Роль газа в будущей мобильности

Jan PAUL, OMV

ОБЗОР ВЕБИНАРОВ

Changing global energy demand. Energy and CO2 in Transport. Energy consumption in transport. Trends in transport. Fuel comparison.

MODULE 5. SUSTAINABLE ENERGY TRANSITION

TRENDS IN DECENTRALIZATION AND DIGITALIZATION

Тренды в децентрализации и цифровизации

Jens WEINMANN & Christoph BURGER, ESMT

Interactive webinar with a quiz. Capacity additions, storage alternatives, technological learning curves, smart meters, the role of transportation up to CO₂ pricing and emissions.

NEW BUSINESS MODELS IN THE PHASES OF ENERGY TRANSITION

Новые бизнес-модели на этапах энергетического перехода

Jens WEINMANN & Christoph BURGER, ESMT

Decentralization and digitalization. Phases and business models within the energy transition. Renewable energy crowd-funding, bottom-up participation.

ENERGY SYSTEM ANALYSIS -SHOWCASE GERMANY

Анализ энергосистем - на примере Германии

Stefan NIESSEN, Siemens

Germany's commitment to reduce CO₂ emissions. CO₂ emissions and secondary energy demand by application. Storage technologies and components linking energy modes.

VIDEO LECTURES

EU ENERGY MARKET

Энергетический рынок ЕС

Tino SCHUETTE, University of applied science

Principles of energy economics. The case of Europe and the case of Germany. Future challenges.

NATURAL GAS A BRIDGE TECHNOLOGY OR IMPORTANT PART OF THE ENERGY TRANSITION?

Природный газ как мост к возобновляемой энергии или важная часть энерго перехода?

Dietlef WESSLING, Uniper

Tailoring energy solutions and managing complexity (including H2). Energy transition in Germany and Europe. Natural gas grid as a partner of renewables. Gas to power. Natural gas as motor fuel. Challenges in transport and storage.

CHALLENGES

Challenge 1. Infographics

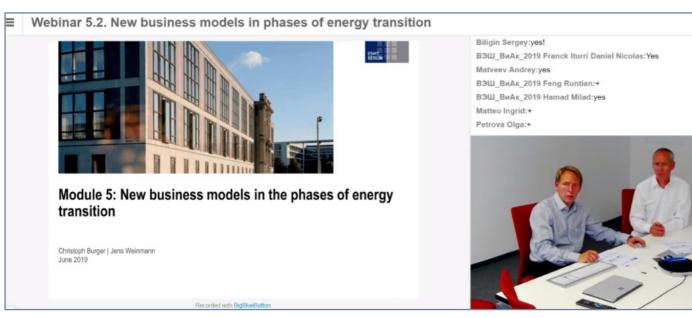
Challenge 2. Business models and strategies

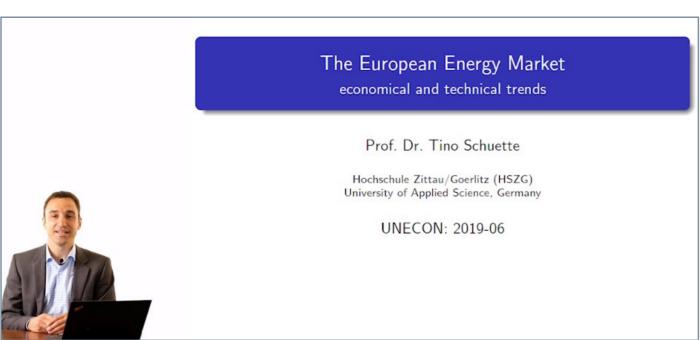
Challenge 3.

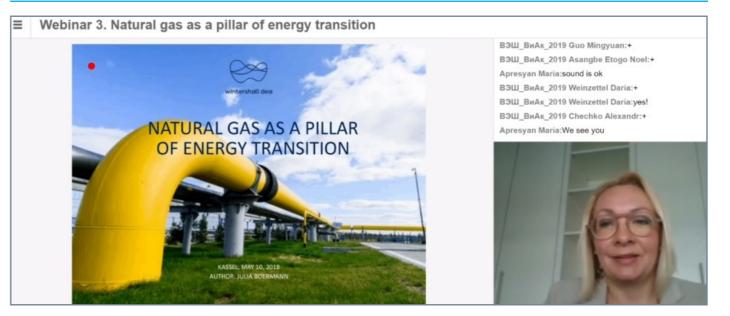
Attractiveness of new markets utility-scale storage, smart home, off-arid solution and the role of gas.

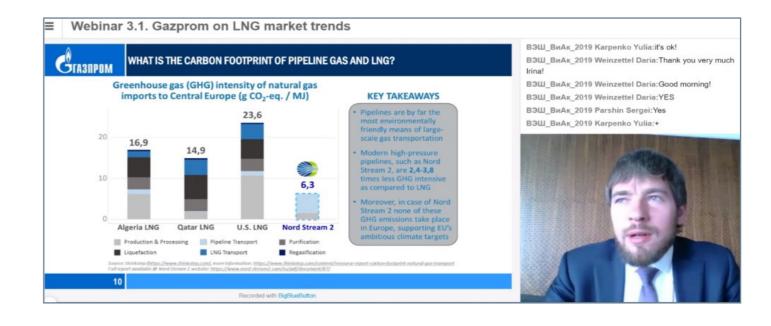
Final #project_challenge



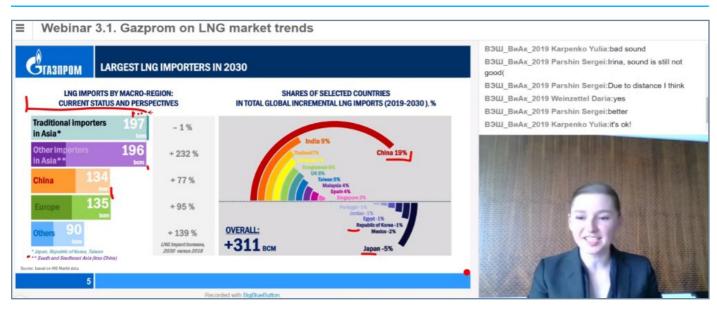


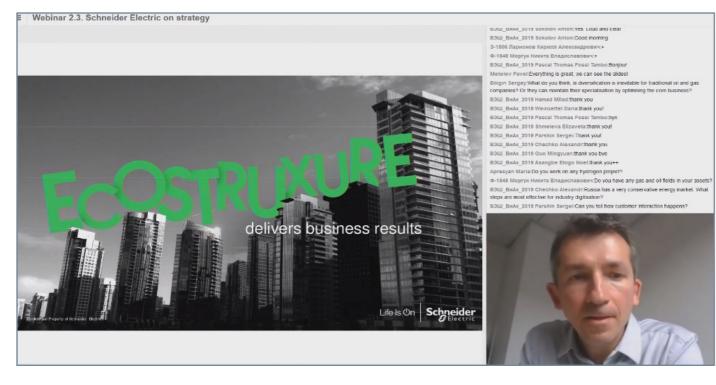




















PROJECTS 20 21 TPOEKTЫ

BEST STUDENTS' PROJECTS



Guillaume SCHNEEGANS
Sciences Po Paris (France)

Project: PROJECT E-XPAND - Electric and fuel cell cars have an insufficient range

Проект E-XPAND: модульная газовая микротурбина для подзарядки электромобилей

Although it is a significant obstacle to the adoption of electric vehicles by consumers, the insufficient range of EVs represents a problem only 4 times a year. Indeed, this is the average number of trips made by Europeans who travel.

The solution to this limited, occasional issue? A modular microturbine running on natural gas!

Compact, light, and simple, this equipment would be fixed on or behind the car and would recharge the battery on the road.

Available for rent at the local dealership or auto repair shop, it would provide consumers with flexibility, reduced costs, as well as a greener solution than petroleum-based fuels.



Igor KAZAL

Vienna University of Economics and Business (Austria)
Graduate School of Management, St. Petersburg State University (Russia)
Project: Decentralized energy grid management – methods and a case study

Децентрализованное управление энергосистемами - методы и тематическое исследование

Idea: "How innovative technologies foster the transition to a decentralized energy environment"

In many parts of the world, questions arise about the future of energy consumption. Governments aim to reduce CO2 emissions, and renewable energy sources should help with that. Smart grids are rolled out globally and with the deployment of smart meters, large amounts of data about our consumption habits will be available. With this infrastructure, decentralized energy generation will be possible. Instead deriving electricity from central large power plants, which generate energy with coal, gas or nuclear power and transport it in the grid to the consumers, many smaller-scale producers

and consumers with own energy production capabilities can exchange energy locally. To make the switch into decentralized distributed energy successful, innovative technologies such as artificial intelligence, big data analytics and blockchain must be used. Current projects demonstrate the potential to use energy more efficiently, reduce costs, limit waste and let consumers take an active part in the energy distribution.

Personally, I expect the industry of distributed energy resources to only grow faster in the future and significant investments are going to happen. Self-sufficient local energy communities and a higher share of renewable energy resources are benefits that the transition will bring to us.

ЛУЧШИЕ СТУДЕНЧЕСКИЕПРОЕКТЫ



James Robert MULLINS
University of Aberdeen (The United Kingdom)
Project: Towards Automatic Reservoir Modelling
К автоматическому моделированию резервуаров

Sedimentary facies are known to be key control on the distribution of spatial heterogeneity within reservoirs. Spatial distribution of heterogeneity and associated connectivity of reservoir quality facies is the end product of the complex interaction of sedimentation, erosion, burial, compaction and diagenesis over millions of years. This heterogeneity often exists below the resolution of conventional 3D seismic surveys. Therefore, accurate geological facies modelling is a critical step in the reservoir modelling workflow. Reservoir models are typically add value throughout the whole field life span, from appraisal, through production and forecasting to end of life and the decommissioning phase.

The population of traditional geocellular models are reliant on defining the geometry, size and directionality of facies proportions through the manual measurement of object dimensions or variograms from outcrop analogues. These models are typically limited by the quality of the available geological data and, as a result, many of the above variables cannot be sufficiently specified to accurately guide the modelling process in complex reservoirs. Multiple-point statistics (MPS) is a newer property modelling technique reliant on defining representative training images (TIs), a conceptual numerical description of the interpreted reservoir heterogeneity. TI development has historically been based on subjective criteria on a studyby-study basis.

Despite rapid advances in digital technology, traditional methods for collecting

quantitative and qualitative information on sedimentary architecture from analogue systems are still reliant on field sketches, stratigraphic correlation or interpretation of photos or virtual outcrop models. While virtual outcrops address many problems previously faces with the three-dimensionality of outcrops, manual outcrop interpretation remains a fixed requirement to provide userdefined inputs for the construction of semideterministic reservoir models from outcrop exposures. Here, the application of a new range of techniques for the automatic extraction of large volumes of relevant quantitative and qualitative geostatistical information to drive more geologically accurate, representative and precise geostatistical reservoir modelling is presented for improved reservoir characterization and understanding. More geologically accurate, representative and fit-for purpose geostatistical reservoir models from the new generation of virtual outcrop datasets were produced.

Water flooding simulation indicates that the distribution of heterogeneity results in significant parts of moveable oil being trapped in unswept areas and dead-ends, which is highly important for production activities in mature provinces undergoing enhanced oil recovery (EOR) and/or optimization and targeting of "small pools" to identify and predict bypassed zones of moveable oil that could be actively targeted and developed through re-completions, infill drilling and sidetracks.

YOUTH DAY OCTOBER 1

WELCOME CEREMONY
TEAM BUILDING CONSTRUCTOR



The Youth Day 2019 was inaugurated by **Elena KASYAN** (Gazprom).

Then Yana KLEMENTOVICHUS (HES UNECON) thanked all participants from student and business community:

THIS YEAR WE HAVE PREPARED MANY SURPRISES AND A LOT OF OPPORTUNITIES FOR YOU TO ACT AS REAL PROFESSIONALS, YOUNG LEADERS AND FUTURE SUCCESSFUL EXECUTIVES, ENGINEERS AND SHAPERS OF GAS INDUSTRY. IT IS VERY IMPORTANT FOR US THAT THIS YEAR THE LEADING ENERGY COMPANIES, MEMBERS OF IBC, PROVIDED THEIR PERSONAL FINANCIAL AND ORGANIZATIONAL SUPPORT TO THE PROJECT. YOU HAVE ALREADY HAD A CHANCE TO MEET THEIR REPRESENTATIVES AT THE VIRTUAL ACADEMY.

YOU ARE THE BEST PARTICIPANTS STANDING HERE. I CONGRATULATE YOU ONCE AGAIN AND WISH YOU PLEASANT AND FRUITFUL DAYS AT SPIGF!

The Interactive game #TeamBuildingConstructor opened the Youth Day 2019 program.

The participants, divided into teams, had to build a Goldberg machine. Each team constructed one segment. Then they had to connect all the parts and start a chain of the mechanism.



SENSATION!!! GUYS FROM 11 COUNTRIES HAVE SET A NEW RECORD!

The Youth Day participants managed to prove that they are the best of the best. Their machine worked at the first attempt! This was an incredible and unique result!

МОЛОДЕЖНЫЙ ДЕНЬ 1 ОКТЯБРЯ

ПРИВЕТСТВЕННАЯ ЦЕРЕМОНИЯ ТИМБИЛДИНГ КОНСТРУКТОР

Старт Молодёжному дню 2019 дала **Елена КАСЬЯН** (Газпром):

РАДА ВИДЕТЬ МОЛОДЫЕ ЛИЦА С ИНТЕРЕСОМ И ИСКОРКОЙ В ГЛАЗАХ! МЫ ПОНИМАЕМ, ЧТО МОЛОДЕЖЬ - ЭТО БУДУЩЕЕ, ВЕДЬ ЗА НЕЙ – ОБЕСПЕЧЕНИЕ КОНКУРЕНТОСПОСОБНОСТИ КОМПАНИЙ. ЦИФРОВЫЕ И ВИРТУАЛЬНЫЕ ТЕХНОЛОГИИ АКТИВНО РАЗВИВАЮТСЯ, ОНИ НАШЛИ МЕСТО И В НАШЕМ ПРОЕКТЕ. НАДЕЮСЬ, ЧТО В РАМКАХ ПМГФ ВЫ УВИДИТЕ МНОЖЕСТВО ИНТЕРЕСНЫХ ТЕХНОЛОГИЧЕСКИХ РЕШЕНИЙ, ПОЛУЧИТЕНОВЫЙ ОПЫТ В МЕЖДУНАРОДНЫХ ВОСПОЛЬЗУЕТЕСЬ КОММУНИКАЦИЯХ, возможностью **УНИКАЛЬНОЙ** «ВСТРЕЧЕ БЕЗ ГАЛСТУКОВ» ЗАДАТЬ ВОПРОСЫ ΤΟΠ-ΜΕΗΕΔЖΕΡΑΜ ΜИΡΟΒЫХ ΛИΔΕΡΟΒ ЭНЕРГЕТИЧЕСКОГО СЕКТОРА.

Также от лица организаторов выступила Яна КЛЕМЕНТОВИЧУС (ВЭШ СПБГЭУ) и поблагодарила участников и партнёров.

Первым мероприятием в программе Молодёжного дня стала интерактивная игра **#ТимбилдингКонструктор.**

Студентам, поделённым на команды, предстояло построить машину Голдберга. Каждая команда конструировала один сегмент, после чего нужно было соединить и запустить единую цепочку механизма.



СЕНСАЦИЯ!!! РЕБЯТА ИЗ 11 СТРАН ПОСТАВИЛИ НОВЫЙ РЕКОРД!

Участники Молодёжного дня сумели доказать, что они действительно лучшие из лучших. Их конструкция сработала с первой попытки! Это невероятный и уникальный результат!



Модератор Алексей БАРАНОВ (CONSTRUCTOR):

ЧТО ОСОБЕННОГО БЫЛО СЕГОДНЯ:

- СРАЗУ ВИДНО, ЧТО УЧАСТНИКИ ПРОШЛИ СЕРЬЕЗНЫЙ ОТБОР. УРОВЕНЬ ОСОЗНАННОСТИ, СТРЕМЛЕНИЕ КЛИДЕРСТВУ, КАЧЕСТВО КОММУНИКАЦИИ ВСЁ БЫЛО НА ВЫСОТЕ.
- ЯЗЫКОВОЙ БАРЬЕР И ТО, ЧТО ДО СЕГОДНЯШНЕГО ДНЯ РЕБЯТА БЫЛИ НЕЗНАКОМЫ, НЕ СТАЛИ ПРЕПЯТСТВИЕМ ИГРА ПРОШЛА НЕВЕРОЯТНО ДРУЖЕЛЮБНО.
- СТРЕМЛЕНИЕ ПРОВЕСТИ «РАБОТУ НАД ОШИБКАМИ», ДАЖЕ КОГДА СТАЛИ ЛУЧШИМИ - ДОСТОЙНО ОТДЕЛЬНОГО УВАЖЕНИЯ!

YOUTH DAY OCTOBER 1

SPIGF EXHIBITION QUEST "In Search for Collaboration"



It was a task-oriented game aimed at solving problems by interacting with exhibitors of SPIGF.

All participants were divided into six teams. Each of them had its own direction within an energy sector development strategy. The common task was to find companies that are ready to cooperate and develop a collaboration project.

During the first two hours the participants visited companies' stands, talked to their representatives and collected the necessary information.

Within the next two hours, they had to develop cooperation projects and present them to the jury.

Such interactive activities are important for the development of the student's potential as part of a visit to the Fas Forum.

The participants of the Youth Day had the opportunity not only to get acquainted with the companies exhibited at the forum, but also to discuss possible ways of development with their representatives. All the teams coped with the quest tasks at a very high level.

The event was aimed at developing professional and soft skills of the participants. During the quest students interacted with each other, openly discussed the various solutions to the tasks received, and had the opportunity to defend their point of view.

At the same time, there was an accumulation of knowledge, an exchange of experience and ideas. In addition, the uniqueness of this quest was that to solve problems the participants needed to apply elements of several interactive forms at once.

МОЛОДЕЖНЫЙ ДЕНЬ 1 ОКТЯБРЯ

> КВЕСТ ПО ВЫСТАВКЕ ПМГФ «В поисках сотрудничества»

Квест «В поисках сотрудничества» - это интерактивная поисковая игра, направленная на решение задачи путём взаимодействия с представителями компаний-экспонентов выставки ПМГФ.

Все участники были поделены на 6 команд. У каждой было своё направление в рамках стратегии развития энергетической отрасли. Общая задача – найти компании, которые готовы к сотрудничеству и разработать проект коллаборации между ними.

В течении первых двух часов участники посещали стенды, общались с представителями компаний и собирали необходимую информацию.

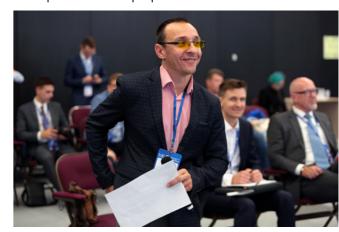


За следующие два часа они должны были разработать проекты коллаборации и презентовать их членам жюри.

Мероприятие было направлено на развитие профессиональных и личностных навыков участников. В процессе игры студенты взаимодействовали между собой, открыто обсуждали варианты решений получаемых заданий, имели возможность аргументировать свою точку зрения.

Одновременно происходило накопление знаний, обмен опытом, идеями и способами действий. Кроме того, уникальность данного квеста в том, что

для решения задач необходимо было применить элементы сразу нескольких интерактивных форм.



Модератор Виталий СТЕЛЬМАШОНОК (СПбГЭУ):

ТАКИЕ ИНТЕРАКТИВНЫЕ МЕРОПРИЯТИЯ ЯВЛЯЮТСЯ ВАЖНЫМИ ДЛЯ РАЗВИТИЯ ПОТЕНЦИАЛА СТУДЕНТА PAMKAX ПОСЕЩЕНИЯ ГАЗОВОГО ФОРУМА. У **УЧАСТНИКОВ** ΟΊΟΗЖΊΔΟΛΟΜ КНΔ БЫЛА ВОЗМОЖНОСТЬ НЕ ΤΟΛЬΚΟ ПОЗНАКОМИТСЯ С КОМПАНИЯМИ. ΠΡΕΔΟΤΑΒΛΕΗΗЫΜИ ΗΑ ΦΟΡУΜΕ, ΗΟ И ОБСУДИТЬ ВОЗМОЖНЫЕ ПУТИ РАЗВИТИЯ С ИХ ПРЕДСТАВИТЕЛЯМИ. СЧИТАЮ, ЧТО ВСЕ КОМАНДЫ СПРАВИЛИСЬ С ПОСТАВЛЕННЫМИ 3ΑΔΑΥΑΜΙ ВЫСОКОМ УРОВНЕ.

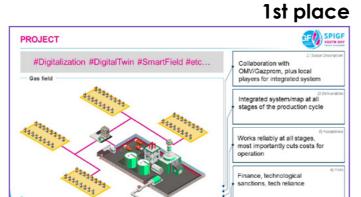


TEAMS' PRESENTATIONS

SPIGF EXHIBITION QUEST "In Search for Collaboration"

TEAM PURPLE





ПРЕЗЕНТАЦИИ КОМАНД

КВЕСТ ПО ВЫСТАВКЕ ПМГФ «В поисках сотрудничества»

TEAM DARK BLUE

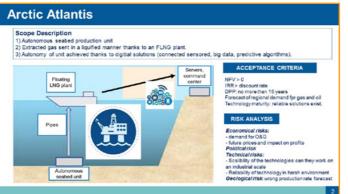




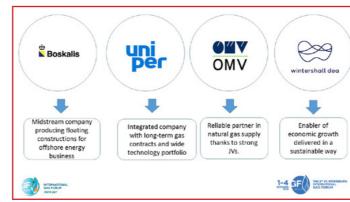
TEAM ORANGE

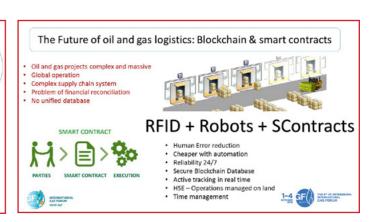




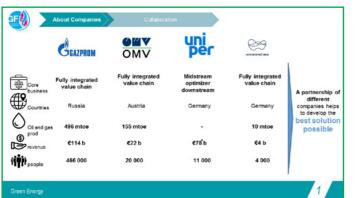


TEAM RED

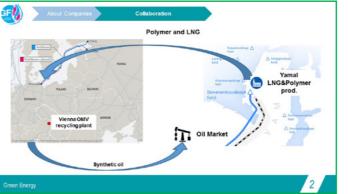




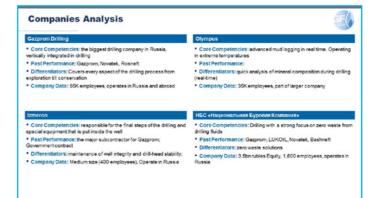
TEAM GREEN







TEAM LIGHT BLUE





YOUTH DAY OCTOBER 2

BUSINESS GAME "Charge the City"

On the second day there was the interactive business game "Charge the City". All participants were divided into six international teams with representatives of technical and economic specializations in each.

The main task of the game was to come up with ways to provide energy to a large urban area. Experts from leading energy companies were in a room to help the teams.



Moderators Christoph BURGER (ESMT) & Natalia SARAKHANOVA (UNECON):

TEAMS LEARNED HOW TO MAKE THE RIGHT INVESTMENT DECISIONS IN A CHANGING WORLD AND HOW TO ASSESS THEIR POTENTIAL IMPACT. THE CONSIDERABLE AMOUNT OF DATA AT THE BEGINNING OF THE GAME AND ITS CHANGE IN THE PROCESS FORCED THE TEAMS TO REACT IN A FLEXIBLE MANNER TO THE CHANGING CONDITIONS. PARTICIPANTS HAD TO CONSIDER ECONOMIC, ENVIRONMENTAL AND SOCIAL ASPECTS.

The game lasted all day. The heated debates at the tables did not stop for a minute. In the course of the game conditions changed, which forced participants to closely follow the news and review the decisions.



In the middle of the day participants received information that hydrocarbon prices had fallen sharply. The volatility of the energy market required significant adjustments to investment strategies.

Then there was the news about changes in the cost of equipment and the emergence of new technologies in the market. The teams were maneuvering in search of a solution that would suit different stakeholders. And suddenly, the players faced a protest of the fierce wind power generation opponents.

Finally, all the teams presented their solutions to the problem. The jury acted as an "urban community", which could approve or reject the ideas of young power engineers and economists.

The experts highly appreciated the training of the participants in the VA and their motivation, which allowed the participants to cope with the task, make the necessary calculations and present the solutions to the jury.

Во второй день прошла интерактивная деловая игра «Заряди свой город». Все участники были поделены на шесть международных команд. В каждой были представители технических и экономических специальностей.

Команды учились принимать верные инвестиционные решения в условиях меняющегося мира и оценивать возможные последствия. Значительный объем данных в начале игры и их изменение в процессе заставляло команды реагировать на меняющиеся условия. Участникам пришлось учитывать экономические, экологические и социальные аспекты.

Основная задача игры – придумать способы обеспечения энергией крупного городского района.

На помощь командам были направлены эксперты от ведущих энергетических компаний.

Игра длилась весь день. Жаркие споры за столами не утихали ни на минуту. В процессе условия задания менялись, что заставляло участников внимательно следить

за новостями и пересматривать решения.

2 ОКТЯБРЯ

«Заряди свой город»

МОЛОДЕЖНЫЙ ДЕНЬ

В середине дня студенты получили информацию, что цены на углеводороды резко упали. Меняющийся рынок энергоресурсов потребовал существенно скорректировать инвестиционные стратегии. Затем пришли новости об изменении стоимости оборудования, появлении на рынке новых технологий. Команды маневрировали в поисках решения, которое бы устраивало различных стейкхолдеров. В этот момент игроки столкнулись с протестным выступлением яростных противников ветряной генерации.

В финале все команды представили решения поставленной задачи. Жюри выступало в роли «городской общественности», которая могла одобрить представленные идеи молодых энергетиков или отклонить их.



Модераторы Роб ВЕЕРСМА (Газпром Интернешна Трейдинг) и Павел МЕТЕЛЁВ (ВЭШ СПбГЭУ):

ЭКСПЕРТЫ ВЫСОКО ОЦЕНИЛИ
ПОДГОТОВКУ УЧАСТНИКОВ В РАМКАХ
ВИРТУАЛЬНОЙ АКАДЕМИИ И ИХ МОТИВАЦИЮ,
КОТОРЫЕ ПОЗВОЛИЛИ УЧАСТНИКАМ СПРАВИТЬСЯ
С ЗАДАНИЕМ, ОСУЩЕСТВИТЬ НЕОБХОДИМЫЕ
РАСЧЕТЫ И ПРЕДСТАВИТЬ РЕШЕНИЯ ЖЮРИ.

EXPERTS & JURY

BUSINESS GAME "Charge the City"

The teams' assistance and support were provided by the partner companies' **EXPERTS**:

Julia BOERMANN

Wintershall Dea

Dietrich JOCHIM

VNG Handel & Vertrieb

Alexey KOSHELETS

Gazprom



Irina KUZNETSOVA

Schneider Electric

Jan PAUL

OMV Russia Upstream

Konstantin ROMANOV

Gazprom

Grigory SHEVCHENKO

Uniper Global Commodities

The teams solutions were examined by **JURY** represented by senior managers of partner companies:

Britta van BOVEN

Gasunie

Lars DRAGE

OMV Russia Upstream

Margarita HOFFMANN

Wintershall Dea

Marcel KRAMER

Energy Delta Institute



Maxim NEDZVETSKY

Gazprom VNIIGAZ

Olga ORLOVA

UNECON

Detlef WESSLING

Uniper Global Commodities

ЭКСПЕРТЫ И ЖЮРИ

БИЗНЕС-ИГРА «Заряди свой город»



В помощь командам были приглашены **ЭКСПЕРТЫ** из компаний-партнёров.

Решения команд оценивало **ЖЮРИ**, состоящее из руководителей среднего и высшего звена компаний-партнёров.

THE WINNERS

Победители

Elnur BAKHTIIAROV

Saint-Petersburg Mining University (Russia)

Illarion DARSAVELIDZE

National Research University – Higher School of Economics (Russia)

Sofia DENISOVA

MGIMO-University (Russia)

Ilona DOTSENKO

Graduate School of Management, Saint-Petersburg State University (Russia)

Oleg KONDRATEV

North-Eastern Federal University in Yakutsk (Russia)

Abayomi KOYEJO

Skolkovo Institute of Science and Technology (Russia)

Valeriy MAKARENKO

Ukhta State Technical University (Russia)

Albert SALIMGARAEV

Gubkin Russian State University of Oil and Gas (Russia)

Dmitry YUKHNO

Polotsk State University (Belarus)

YOUTH DAY OCTOBER 3

OFFICIAL GREETINGS
Top 7 participants award



The Youth Day 3rd event was inaugurated by **Sergey KHOMIAKOV** (Gazprom).

He also awarded 7 best participants of the Youth Day 2019 project with certificates of honor.

Guillaume SCHNEEGANS

Sciences Po Paris (France)

James Robert MULLINS

University of Aberdeen (The UK)

Elizaveta SHMELEVA

Bauman Moscow State Technical University (Russia)

Bulat MINNIKHAZIEV

Almetyevsk State Oil Institute (Russia)

Ilona DOTSENKO

Graduate School of Management, Saint-Petersburg State University (Russia)

Abayomi KOYEJO

Skolkovo Institute of Science and Technology (Russia)

Sergei PARSHIN

Bauman Moscow State Technical University (Russia)





Третий день Молодёжного дня открыл **Сергей ХОМЯКОВ** (ПАО «Газпром»):

ЗА 4 ГОДА РАБОТЫ ЧЕРЕЗ МОЛОДЁЖНЫЙ ДЕНЬ ПРОШЛО БОЛЕЕ 800 СТУДЕНТОВ. МНОГИЕ УЖЕ РАБОТАЮТ В КОМПАНИЯХ, КОТОРЫЕ ЗДЕСЬ ПРЕДСТАВЛЕНЫ. ТАК ЧТО БУДУЩЕЕ - ЭТО ВЫ. ВАМ РЕШАТЬ, КАК БУДЕТ ВЫГЛЯДЕТЬ ЭНЕРГЕТИЧЕСКАЯ ОТРАСЛЬ ЧЕРЕЗ 10, 20, 30 ЛЕТ И ДАЛЬШЕ. УДАЧИ!

Сергей Хомяков также наградил почётными грамотами 7 лучших участников проекта Молодёжный день 2019 года.

YOUTH DAY OCTOBER 3

OFF-TIE MEETING WITH EXECUTIVES OF ENERGY COMPANIES "How to Be Competitive in 2029 and Beyond?"

The Off-tie Meeting was opened by welcome speeches from the **EXECUTIVES** on the stage:

Elena BURMISTROVA

Gazprom Export

Cederic CREMERS

Shell Russia

Han FENNEMA

Gasunie



Mario MEHREN
Wintershall Dea

Andreas SCHIERENBECK

Uniper

Rainer SEELE

 OMV

The speakers introduced themselves and answered the following question "What happened in energy industry during this year after our last meeting that could potentially change the long-term strategy of your company?"

Then the executives came down and joined one team each. For 15 minutes they discussed various topics with students.

Together they tried to solve important dilemmas that energy industry faces:

Energy Transition

2 Digitalization

3 War for Talents

Environmental Concerns

Global Energy Demand and Supply

EU Security Of Gas Supply

All the dilemmas were united by the key topic of the Meeting: "What steps should companies take right now to be competitive in 2029 and beyond?"

Then each team made a short presentation on its dilemma, receiving comments and questions from speakers and other participants.

Moderators Rob VEERSMA (Gazprom International Training) & Pavel METELEV (UNECON):

THIS YEAR THE STUDENTS WERE SMART AND CREATIVE, REALLY CLEVER COOKIES IN THE TEAMS. THEY APPRECIATED THE INTERACTIVE APPROACH WITH EXECS COMING TO THEIR TABLE. THE CHOSEN TOPICS TO BE DISCUSSED WERE INTERESTING FOR BOTH PARTIES.

A special support to the Youth Day was provided by **Igor MAKSIMTSEV** (UNECON), at the end of the Meeting. On behalf of the organizers, he thanked all participants and partners of the project.

МОЛОДЕЖНЫЙ ДЕНЬ 3 ОКТЯБРЯ

ВСТРЕЧА БЕЗ ГАЛСТУКОВ С СЕО ЭНЕРГЕТИЧЕСКИХ КОМПАНИЙ «Как быть конкурентоспособным в 2029 году и дальше?»



Встреча без галстуков началась с выступления спикеров. Каждый представился и коротко ответил на вопрос: «Что нового произошло в энергетике за год, и что потенциально может изменить долгосрочную стратегию компании?»

Затем спикеры спустились в зал. Каждый присоединился к одной из студенческих команд, где в течение 15 минут они обсуждали различные темы, пытаясь решить важные для отрасли дилеммы:

Энергетический переход

2 Цифровизация

3 Война за таланты

4 Экологические угрозы

Глобальное потребление и снабжение энергией

Обеспечение безопасности поставок газа в EC

Все дилеммы были объединены ключевой проблематикой Встречи: «Какие шаги должны предпринять компании сегодня, чтобы быть конкурентоспособными в 2029 году и дальше»?

Затем каждая команда выступала с короткой презентацией по своей дилемме, получая комментарии и вопросы от спикеров и от других участников.

В заключении от лица организаторов с благодарственной речью ко всем участникам и партнёрам Молодёжного дня выступил Игорь МАКСИМЦЕВ (СПбГЭУ):

ВСЕ ПЯТЬ ЛЕТ МЫ ОЩУЩАЕМ МОЩНУЮ ОРГАНИЗАЦИОННУЮ, ЭКСПЕРТНУЮ И ФИНАНСОВУЮ ПОДДЕРЖКУ СО СТОРОНЫ КОМПАНИЙ ПАРТНЁРОВ. ВАШЕ ЖЕЛАНИЕ ДЕЛИТЬСЯ ЗНАНИЯМИ И ОПЫТОМ С МОЛОДЫМ ПОКОЛЕНИЕМ ОЧЕНЬ ВАЖНО И ДЛЯ УЧАСТНИКОВ, И ДЛЯ РАЗВИТИЯ ОТРАСЛИ В ЦЕЛОМ. ЕЩЁ РАЗ ХОЧУ ПОБЛАГОДАРИТЬ ВСЕХ УЧАСТНИКОВ, ПАРТНЁРОВ И ОРГАНИЗАТОРОВ! БУДЕМ ЖДАТЬ НОВОСТЕЙ О ПРОФЕССИОНАЛЬНЫХ УСПЕХАХ СТУДЕНТОВ.

37



Day 1. Elena Kasyan's welcome speech



Day 1. Organizers of the Youth Day 2019



Day 1. #TeambuildingConstructor



Day 1. Future leader of gas industry



Day 1. Yana Klementovichus's welcome speech



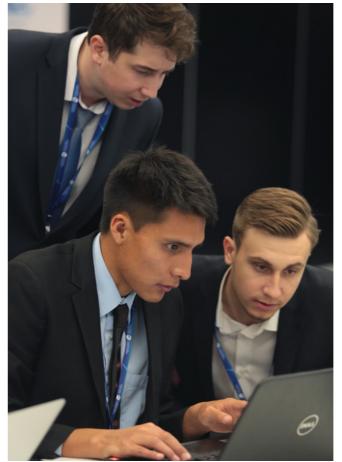
Day 1. Goldberg machine



Day 1. Interview during SPIGF exhibition QUEST



Day 2. Protest of wind power generation opponents



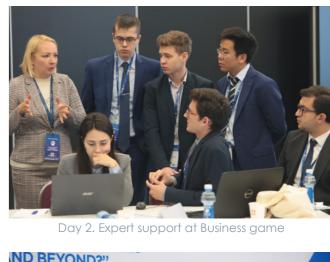
Day 2. Teams at work



Day 3. Audience at the Off-tie Meeting



Day 2. "Be energetic, be youthful!"





Day 3. Ties-off moment



Day 3. Igor Maksimtsev's greetings speech

ENERGY CHALLENGE PARTICIPANTS



Alina AKHMEDOVA M.Sc. Oil field development Saint-Petersburg Mining University (Russia) **Project:** Use of APG for local power



Sergey BEGISHEV M.Sc. Governance of Science, Technology and Innovation National Research University -Higher School of Economics (Russia) **Project:** Energy technology radar:

industry 4.0.



Noel ASANGBE ETOGO B.Sc. Oil and Gas engineering North Caucasian Institute of Mining and Metallurgy (Russia) **Project:** Power grid system integration of machine learning software (ML) for energy distribution and supply optimization in developing economies.



Benedikt BEHR M.Sc. Business Innovation University of St. Gallen (Switzerland) Graduate School of Management, Saint-Petersburg State University (Russia) **Project:** Power Ledger – Understanding the activities of stakeholders in decentralized energy production systems.



Zein ALABDIN AYOUB M.Sc. Science in Engineering Polotsk State University (Belarus) **Project:** Formulating computer models reducing the cost of rectification processes.



Roberto BELGIOVINE International Master's in Business Administration Business School LUISS Guido Carli (Italy) Graduate School of Management, Saint-Petersburg State University (Russia) Project: BIOLUXURY - Promote the usage of biofuel within luxury automotive industry.



Talish BABAYEV M.Sc. Controlling and Risk management University of Siegen (Germany) Project: FALCON - Floating power-to-gas plant – green gas.



Dmitrii BELOV M.Sc. Pipeline Transportation of Hydrocarbons Saint-Petersburg Mining University (Russia) **Project:** Use of secondary energy resources of gas transportation system.



Elnur BAKHTIIAROV M.Sc. Petroleum engineering Saint-Petersburg Mining University (Russia) **Project:** The justification of the comprehensive approach to enhanced oil recovery in a context of Western Siberia.



Vitaliv BOBROV PhD. Economics Saint-Petersburg State University of Economics (Russia) **Project:** Device for reducing the rate of corrosion of gas pipelines.

УЧАСТНИКИ ЭНЕРГЕТИЧЕСКОГО ЧЕЛЛЕНДЖА



Alexandr CHECHKO M.Sc. Electric Power Plants and Power System Automation Peter the Great Saint-Petersburg Polytechnic University (Russia) **Project:** Development of a power supply layout for the Konitlorskoe oil field.



Mikhail DOLGALEV M.Sc. Reliability of gas and oil pipelines Tomsk Polytechnic University (Russia) **Project:** The study of the stress-strain state of bellows expansion joints in oil pipelines.



Mateusz CIASNOCHA M.Sc. Energy Management ESCP Europe Business School (The United Kingdom) **Project:** Bringing Nigerian rural poor out of poverty through small-scale biogas.



Ilona DOTSENKO M.Sc. Management Graduate School of Management, Saint-Petersburg State University (Russia) **Project:** Charging a Housing Complex: All-in-one solution for residential construction of the future.



Júlia CSÁVÁS M.Sc. Enterprise development Corvinus University of Budapest (Hungary) Graduate School of Management, Saint-Petersburg State University (Russia) Project: MyWay - Car-sharing application.



Ilia EGOROV M.Sc. Geology and Geochemistry of Oil Lomonosov Moscow State University (Russia) **Project:** Archive seismic data interpretation for increase the success of exploration.



Illarion DARSAVELIDZE PhD. Economics National Research University - Higher School of Economics (Russia) **Project:** Impact of Industry 4.0 on energy market.



Runtian FENG M.Sc. Business Administration - Energy and Finance University of Duisburg – Essen (Germany) **Project:** Forecasting Chinese Gas Demand: A Multi-perspective Analysis.



Sofia DENISOVA M.Sc. International Politics and Transnational Business MGIMO University (Russia) **Project:** Digital business models and digital transformation in energy industry.



Pascal Thomas FOSSI TAMBO B.Sc. Petroleum Engineering North Caucasian Institute of Mining and Metallurgy (Russia) Project: Africa, a green Powerhouse (Solar + Hydrogen).



Daniel Nicolas FRANCK

B.Sc. Petroleum and Gas Engineering Bolivian Private University (Bolivia) **Project:** General Analysis of Small-Scale Biogas plants for Rural Households in Sub-Saharan Africa.



Elizaveta IAMSHCHIKOVA

M.Sc. Petroleum Engineering Skolkovo Institute of Science and Technology (Russia) Project: Renewables unit for energy supply of gas production facility.



Roman KHROMCHENKO

M.Sc. Organization Development Management Saint-Petersburg State University (Russia) **Project:** Economic model of raw materials export: opportunities, limitations and Russian experience.



Danil KULIKOV

M.Sc. International economics
Saint-Petersburg State University of
Economics (Russia)
Project: Technical and economic
model of natural gas decarbonization:
international aspect.



Takhir GALLYAMOV

M.Sc. Pipeline transportation of hydrocarbons
Saint-Petersburg Mining University (Russia)

Project: Parameters ensuring resource saving of hydracarbons during the vertical stock tank operation and development of measures to reduce oil losses from evaporation in the Tank Field OF CPF No. 7, Priobskoye field.



Gennady IVANOV

M.Sc. Construction
Ukhta State Technical University (Russia)
Project: The use of waste sludge in the production of concrete.



Oksana KLIMENKO

M.Sc. Energy Management
ESCP Europe (The United Kingdom)
Project: Solar PV Panels Recycling –
Recycling solar panels to mitigate their
end-of-life contaminating effect.



Kirill LARIONOV

B.Sc. Finance and credit
Saint-Petersburg State University of
Economics (Russia)
Project: Synthesis gas production:
traditional and alternative ways.



Anastasia GLUOKSNIS

Sp-st. Design of aircraft and rocket engines Bauman Moscow State Technical University (Russia) Project: Spherical dimples application as the way to improve efficiency of natural gas air coolers.



Chenyang JI

M.Sc. Industrial Economics
Renmin University of China (China)
Project: Gas or electricity? Evidence
from clean energy reform in rural areas
of Northern China.



Oleg KONDRATEV

M.Sc. Economics of enterprises and organizations in the oil and gas industry Ammosov North-Eastern Federal University (Russia)

Project: Condition and prospects of extraction coalbed methane in the world.



Edouard LOTZ

M.Sc. Energy management ESCP Europe Business School (The United Kingdom)

Project: M&A automation platform in the energy sector.



MingYuan GUO

M.Sc. Energy Technology
Peter the Great Saint-Petersburg
Polytechnic University (Russia)
Project: Air separation process based on
LNG cold energy utilization.



Vadim KABIROV

M.Sc. Chemical Engineering
Saint-Petersburg Mining University
(Russia)
Project: Computer quantum-mechanical
modeling for the scientific substantiation
of energy-saving technology of
obtaining antifriction and anti-corrosion



Abayomi KOYEJO

M.Sc. Petroleum Engineering
Skolkovo Institute of Science and
Technology (Russia)
Project: Application of CO2 gas in
enhanced oil recovery of heavy oil
reservoir.



Valeriy MAKARENKO

PhD. Design and exploitation of oil and gas pipelines
Ukhta State Technical University (Russia)
Project: Utilization of associated petroleum gas at oil production facilities located on Russian Far East for the generation of heat, electricity, and synthetic liquid fuel.



Alexander HOFFER

M.Sc. Strategy, Innovation and Management Control
Vienna University of Business and Economics (Austria)
Graduate School of Management, Saint-Petersburg State University (Russia)
Project: Chinese investment strategies in the European renewable energy sector.



Igor KAZAL

additives.

M.Sc. Strategy, Innovation and
Management Control
Vienna University of Economics and
Business (Austria)
Graduate School of Management, SaintPetersburg State University (Russia)
Project: Decentralized energy grid
management – methods and a case
study.



Dmitriv KOZLOV

opportunities.

M.Sc. Economics, Energy Policy,
Integration and Energy Security
Gubkin Russian State University of Oil and
Gas (Russia)
Project: Energy cooperation between
India and Russia. Challenges and



Andrey MARAKULIN

M.Sc. Conceptual petroleum
engineering
Tyumen State University (Russia)
Project: Condensate banking effect in
Achimov formation of the Urengoy field.



Yana MARTYNENKO
M.Sc. Pipeline transportation of
hydrocarbons
Saint-Petersburg Mining University
(Russia)
Project: Reduce energy consumption
and LNG losses during the discharge of
vapors from the cryogenic tank by using
a liquid-gas ejector.



Sergei PARSHIN
M.Sc. Cryogenic engineering
Bauman Moscow State Technical
University (Russia)
Project: Russian case: Associated
petroleum gas processing into products.



Elizaveta SHMELEVA
M.Sc. Refrigeration equipment and technologies
Bauman Moscow State Technical
University (Russia)
Project: Analysis of the suitability of liquid air energy storages for the energy systems.



Daria WEINZETTEL

M.Sc. International Energy
Sciences Po Paris (France)

Project: The impact of geopolitics on the
gas industry. Russia and US geopolitics in
the European gas market.



Vsevolod MIKHAYLOV
M.Sc. Management
Graduate School of Management, SaintPetersburg State University (Russia)
Project: CO2 emissions reporting and
corporate financial performance in oil
and gas industry.



Artem POPADKO
M.Sc. Energy policy, integration and energy security
Gubkin Russian State University of Oil and Gas (Russia)
Project: Place of natural gas in Germany's low-carbon energy strategy.



Anton SOKOLOV
M.Sc. Offshore Deep Oil and Gas Wells
Drilling
Ufa State Petroleum Technological
University (Russia)
Project: VARIO Concept - Transportation
platform and service for infrastructurally
challenging O&G projects.



Han XIAO
PhD. Economics
Renmin University of China (China)
Project: New investment chances of clean energy—poverty-alleviation photovoltaic station.



Bulat MINNIKHAZIEV
M.Sc. Operation and maintenance of
transport and storage facilities for oil and
gas
Almetyevsk State Oil Institute (Russia)
Project: Use of turbine expanders for the

realization of the compressed energy

gas at the gas-distributing station.



Anastasiia RUBANOVA
M.Sc. Technology-oriented
management
Saint-Petersburg State University of
Economics (Russia)
Project: Russian Special Investment
Contract.



Alina TAKHAUTDINOVA

M.Sc. Polymer Processing Technologies
and Composite Materials
Kazan National Research Technological
University (Russia)

Project: Acoustic emission (AE) testing.
Application of AE method in the oil and
gas industry.



Dmitry YUKHNO
M.Sc. Chemical technology of fuels and high-energy substances
Polotsk State University (Belarus)
Project: Natural gas as a fuel for industrial and transport enterprises in large cities.



Konstantin MOLCHANOV
PhD. Project Portfolio Management
Saint-Petersburg Mining University (Russia)
Project: Building portfolio flexibility of oil
and gas companies in exploration and
production sector.



Albert SALIMGARAEV
PhD. Petroleum Engineering
Gubkin Russian State University of Oil and
Gas (Russia)
Project: Selection of wells candidates for
hydraulic fracturing.



Max Jizhou TANG
M.Sc. Energy Management
ESCP Europe Business School (The United Kingdom)
Project: The shale revolution and the fundamental shift in pricing of LNG: a new wave of M&As in the midstream natural gas sector.



Rodrigo David ZEBALLOS ESPINOZA
B.Sc. Petroleum and Natural Gas
Engineering
Bolivian Private University (Bolivia)
Project: Production of biodiesel from different seeds that can be found in the Andean region of Bolivia.



James Robert MULLINS
PhD. Geology and Petroleum Geology
University of Aberdeen (The United
Kingdom)
Project: Towards Automatic Reservoir
Modelling.



Guillaume SCHNEEGANS
M.Sc. International energy
Sciences Po Paris (France)
Project: PROJECT E-XPAND - Electric and
fuel cell cars have an insufficient range.



Vincenzo Paolo TRIPODI
International Master's in Business
Administration
Business School LUISS Guido Carli (Italy)
Graduate School of Management, SaintPetersburg State University (Russia)
Project: Effects of climate change and
possible alternative solutions.

BUSINESS PARTICIPANTS



Sergey KHOMIAKOV Deputy Chairman of the Management Committee, PJSC Gazprom Welcome speech





Han FENNEMA Chairman of the Executive Board and Chief Executive Officer, N.V. Nederlandse Gasunie Speaker





Elena Burmistrova Deputy Chairman of the Management Committee, PJSC Gazprom Speaker



Elena KASYAN Head of Department, PJSC Gazprom Welcome speech



Britta van BOVEN Director Strategy and Gas Business Development, Head of Representation in Russia, N.V. Nederlandse Gasunie Jury



Margarita HOFFMANN Senior Vice President, Business Unit Midstream, Wintershall Dea GmbH



Igor MAKSIMTSEV Rector, St. Petersburg State University of Economics **Greetings speech**



Mario MEHREN Chairman of the Board and Chief Executive Officer, Wintershall Dea GmbH Speaker



Thomas MORRIS Senior Vice President, **OMV Russia Upstream GmbH** Speaker



Cederic CREMERS President and Country Chair, Shell Russia Speaker



Yana KLEMENTOVICHUS Higher Economic School of UNECON Welcome speech



Lars DRAGE Head of Exploration, Development and Production. **OMV Russia Upstream GmbH**



Marcel KRAMER President. **Energy Delta Institute**





Maxim NEDZVETSKY Director General, Gazprom VNIIGAZ LLC



Detlef WESSLING Head of technical cooperation, Uniper Global Commodities SE Jury



Dietrich JOCHIM Senior Specialist Gas Purchase Russia, Gas Procurement, VNG Handel & Vertrieb GmbH **Expert**



Irina KUZNETSOVA Specifier Leader for strategic projects, Schneider Electric SE **Expert**



Konstantin ROMANOV Head of Division (Green Innovations), PJSC Gazprom **Expert**



Pavel METELEV Deputy Director, Higher Economic School of UNECON **Moderator**



Christoph BURGER Senior Lecturer, European School of Management and Technology **Moderator**



Aleksey BARANOV Team Coach, CEO, **CONSTRUCTOR TeamBuilding** Moderator



Olga ORLOVA Executive Director, **Endowment Fund of UNECON**



Julia BOERMANN Senior Expert Strategy & Portfolio, Wintershall Dea GmbH



Alexey Koshelets Head of Division (Strategy), PJSC Gazprom **Expert**



Jan PAUL Chief Scientist and Technology **OMV Russia Upstream GmbH Expert**



Grigory SHEVCHENKO Business Development Manager, Uniper Global Commodities SE **Expert**



Rob VEERSMA Director Training & Development, **Gazprom International Training** B.V. Moderator



Natalia SARAKHANOVA Scientific Researcher. Higher Economic School of **UNECON Moderator**



Vitaliy STELMASHONOK Program Director, Higher Economic School of UNECON **Moderator**

MANAGING COMMITTEE Управляющий комитет



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PJSC Gazprom



Marcel KRAMER
President,
Energy Delta Institute



Elena KASYANHead of Department,
PJSC Gazprom



Rector,
St. Petersburg State
University of Economics



Uwe H. FIPSenior Vice President,
Uniper Global Commodities SE



Margarita HOFFMANN Senior Vice President, Business Unit Midstream, Wintershall Dea GmbH



EXECUTIVE COMMITTEE Исполнительный комитет



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Higher Economic School of
UNECON



Irina INZHEVATOVA
Executive Secretary,
International Business
Congress



Pavel METELEV
Deputy Director,
Higher Economic School of
UNECON



Andrey FROLKOV Head of Division, PJSC Gazprom



Mariia SHELEPOVA
Coordinator of Business
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Higher Economic School of
UNECON



Olga SEMIDELIKHINA
Head of International
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Uniper SE



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Higher Economic School of
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Ekaterina KRAVETSKAYAMarketing Director Russia,
Energy Delta Institute



Natalia SARAKHANOVA Scientific Researcher, Higher Economic School of UNECON



Vitaliy STELMASHONOK
Program Director,
Higher Economic School of
UNECON



Maria APRESYAN
Project Manager,
Higher Economic School of
UNECON



Nikita MORGUN
Project Manager,
Higher Economic School of
UNECON



Tatiana URZHUMTSEVA
Director of Asia-Pacific
Center,
UNECON

NETWORK 48 СЕТЬ

YOUTH DAY IN WEB

The Youth Day project is presented in the web on the following resources:

Virtual Academy based on UNECON educational platform Moodle

Application HES EVENTS



Social networks **f w** Youth Day page at SPIGF website https://gas-forum.ru/youth-day

Website: www.energyouthday.com



МОЛОДЕЖНЫЙ ДЕНЬ В СЕТИ

Проект Молодёжный день представлен в сети на следующих ресурсах:

Виртуальная академия на учебной платформа Moodle от СПбГЭУ

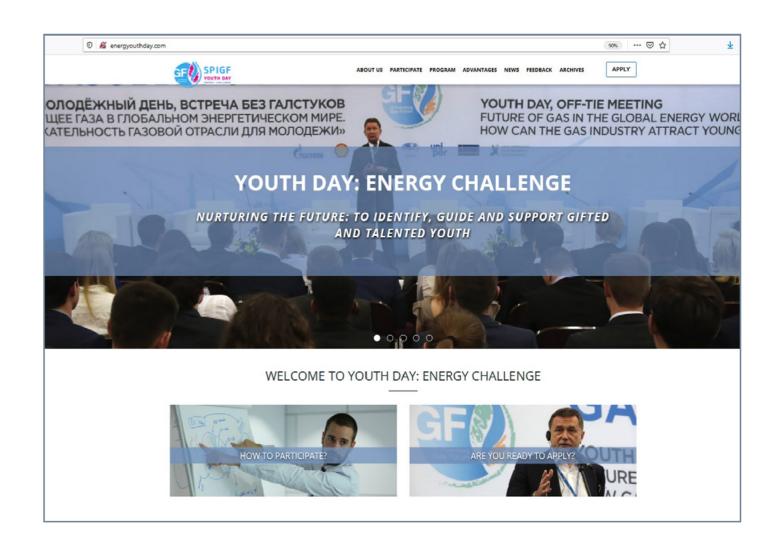
Мобильное приложение HES EVENTS

Социальные сети



О Молодёжном дне на сайте ПМГФ https://gas-forum.ru/youth-day

Веб-сайт: www.energyouthday.com



FEEDBACK 50 51 OT3ЫВЫ УЧАСТНИКОВ

PARTICIPANTS' FEEDBACK

Ilong DOTSENKO

Everyone, i just wanted to tell you how amazing you all are, keep the fire in your hearts and hope we see each other again some day - the oil and gas world is indeed small! If you ever go to sakhalin or work for exxonmobil or go to gsom master program, contact me without hesitation. Stay in touch, will be happy to see you all. Thanks again to the organizers, very high-quality event!

Sergey PARSHIN

It was exciting to be with all of you and caught some new from you! I am pretty sure, energy forum was so full of life thanks to you open heart and radiant eyes! I would like to wish you joy and challenging tasks!

If you are interested in cryogenics, gas processing, hydrogen, digital... In Russia for tourism or something other one have no hesitate to write me. Be energetic, be youth:-)

Danil KULIKOV

during this three days! For me as for kinda novice at energetics it is really an honor to meet all of you;) you can contact me. Currently I'm interested in hydrogen solutions, especially in international aspect, so I'd like to collaborate in projects about this topics. Hope to see you next year!

I am really glad to work with you all

Anton SOKOLOV

Fellows! It was such a pleasure to work alongside you these 3 days. I believe we have learnt a lot from each other and this network we've started building during the Youth Day should definitely be leveraged! Let's keep in touch and don't lose contact with each other. Looking forward to meeting you someday.

Anastasia RUBANOVA

I just wanted to thank you all for such a marvelous event. It was really a great pleasure to play games with you and see how curious and smart you all are. Hope we can meet some day again:) you can always contact me.

Alina AKHMEDOVA

Dear guys, I also want to thank all of you for the great time during these days, you are really incredible people and working and chatting with you was absolutely a pleasure. So if any of you ever go to saint p again just for tourism, contact me. Hope to see you!

Edouard LOTZ

I would like to thank you all, organizers or students attending the forum, we have had very interesting talks and it was really nice meeting you all and sharing our point of view on the energy sector or on many other subjects. I wish you all a successful career, and hope to see some of you in the future:)

ОТЗЫВЫ УЧАСТНИКОВ

Sofia DENISOVA

Dear friends, I am so lucky and happy that at this forum I have met the most talented and ambitious young people from all other the world that share interests and values! I hope we stay in touch, will cooperate and work for a better energy (and not only) future of our countries and foster international cooperation! A special thank you and lots of love goes to deep purple and full charge!

If you are interested in digitalization, innovations or business models, and want to conduct joint research, please contact me or exchange ideas!!

Nikolas FRANCK

I thank you for all, if you have any interest in oil and gas sector in South America, please contact me for more info or i can address you to better sources as well as Spanish translation. Pay attention to full scale shale development, especially in Argentina. This will disrupt many markets.

MingYuan GUO

I'm so appreciated to be a member of Youth Day team. This experience will be one of wonderful memories in my life. I met lots of excellent guys who own amazing talent, not only in the field of energy finance, but also in the field of creativities and leadership skills. I hope we can meet each us again in the future in Russia, china or any other countries.

Pascal Thomas FOSSI TAMBO

I'd like to thank you all for this absolutely fantastic event, both the organizers and the participants. It was thrilling, challenging and so instructive to exchange with you guys. Hope to see you guys soon around the world...!

Noel Asangbe ETOGO

I want to start by saying you guys are amazing and it was a pleasure and an honor to have worked with you guys. It was so inspiring and motivating. I will like to say thank you and congratulations to Maria Sherapova and the rest of the organising team for a fantastic week.

Max JIZHOU TANG

I guess I'm not the only one who almost mistaken Maria for that great tennis players lol. Anyway it was a great pleasure meeting everyone here during the last few days. What a wonderful experience! Please let me know when you visit Canada! I'm a pretty decent host;)

Vadim KABIROV

Dear friends, it was pleasure for me to spend such a wonderful time with you. If you are interested in oil and gas refining, gas processing, economics, and other fields please contact me.

PROSPECTS 52 53 ПЕРСПЕКТИВЫ

ENERGY CHALLENGE 2.0

Advantages of the Youth Day 2019 format:

- Wide coverage of the audience at the first stage thanks to the online format of the Virtual Academy.
- Open dialogue between participants and experts during webinars.
- Opportunity to present your own project (at any stage of implementation) to the leading energy companies.
- High skills and motivation of participants at the final stage, thanks to strong qualification and additional training in the Virtual Academy.
- Presence of high quality and proven games and team building formats in the Youth Day program.
- Involvement of all participants in the prepared activities by reducing the quota.
- Open dialogue of participants with experts, middle and senior managers of partner companies at the forum.
- Full-scale development of participants' personal and professional skills through a variety of formats at all stages of the project.
- Creation and extension of personal network both among peers from all over the world and the business community.

Steps to improve the project:

- Providing more detailed information about the Virtual Academy at the application stage.
- Increasing the coverage of potential participants.
- Adjusting the schedule of the Virtual Academy in accordance with the educational process in universities (study hours, exams).
- Balance of self-study and webinars within the Virtual Academy.
- Possibility to increase the number of days on the Youth Day of SPIGF to implement all formats.
- Presentation of the best projects to a wide range of companies.

ЭНЕРГЕТИЧЕСКИЙ ЧЕЛЛЕНДЖ 2.0

Итоговые преимущества формата Молодёжного дня 2019:

- Широкий охват аудитории на заочном этапе благодаря онлайн формату Виртуальной академии.
- Формат прямого диалога участников и экспертов в рамках вебинаров.
- Возможность представить свой проект (на любой стадии реализации) ведущим энергетическим компаниям.
- Высокий уровень подготовки и мотивации участников финальной стадии, благодаря тщательному отбору и дополнительному обучению в Виртуальной академии.
- Наличие качественных и отработанных игровых и тимбилдинговых форматов в программе Молодёжного дня.
- Вовлечение всех участников в подготовленные активности за счёт уменьшения квоты.
- Прямой диалог участников с экспертами, руководителями среднего и высшего звена компаний-партнёров на площадке форума.
- Всестороннее развитие личностных и профессиональных навыков участников благодаря разнообразию форматов на всех этапах проекта.
- Создание и укрупнение сети контактов как среди сверстников со всего мира, так и среди бизнес сообщества.

Шаги для улучшения проекта:

- Предоставление более подробной информации о Виртуальной академии на этапе регистрации.
- Увеличение охвата потенциальных участников.
- Корректировка графика проведения Виртуальной академии в соответствии с учебным процессом в вузах (учебные часы, экзаменационная сессия).
- Баланс самостоятельной работы и вебинаров в рамках Виртуальной академии.
- Возможность увеличения количества дней на Молодёжном дне ПМГФ для реализации всех форматов.
- Презентация лучших проектов широкому кругу компаний.

ENERGY CHALLENGE 2.0.

VIRTUAL ACADEMY

300+ participants

3 study modules

Video lectures/webinars and study materials

Summing-up webinars

Final project_challenge

New partner companies

YOUTH DAY OF SPIGF 2020

Team building

Quest around SPIGF exhibition

Business game

SPIGF plenary session

Off-tie Meeting

ЭНЕРГЕТИЧЕСКИЙ ЧЕЛЛЕНДЖ 2.0.

ВИРТУАЛЬНАЯ АКАДЕМИЯ

300+ участников

3 учебных модулей

Учебные видео/вебинары и материалы

Вебинар по итогам модуля

Итоговый проект

Новые компании-партнёры

МОЛОДЁЖНЫЙ ДЕНЬ ПМГФ 2020

Тимбилдинг

Квест по выставке ПМГФ

Бизнес-игра

Пленарная сессия ПМГФ

Встреча без галстуков

54 **PROSPECTS**

CALL FOR ENTRIES 2020 Регистрация участников 2020

In 2020 the Youth Day will be held for the 6th time in format of the ENERGY CHALLENGE 2.0.

We are waiting for talented and motivated young people willing to:

- enhance the knowledge of energy business
- demonstrate their best personal and professional skills and competences to the leading energy companies
- communicate with peers and top-level experts on international level
- create professional network
- discover career opportunities in energy sector

В 2020 году Молодёжный день будет проведён в 6 раз в формате ЭНЕРГЕТИЧЕСКИЙ ЧЕЛЛЕНДЖ 2.0.

Мы ждем талантливых и целеустремленных молодых людей, которые желают:

- углубить знания об энергетическом бизнесе
- продемонстрировать свои лучшие личностные и профессиональные навыки и компетенции ведущим энергетическим компаниям
- пообщаться с коллегами и топ экспертами на международном уровне
- создать сеть профессиональных **KOHTAKTOB**
- узнать о карьерных возможностях в энергетическом секторе

Next deadline for applying April the 1st, 2020

For more information about the project visit http://energyouthday.com/

Contact youthday@hes.spb.ru

HES UNECON

Регистрация открыта до 1 апреля 2020 г.

Больше информации о проекте - на нашем сайте http://energyouthday.com/

Контакт youthday@hes.spb.ru

Mariia Shelepova and Pavel Metelev,

Мария Шелепова и Павел Метелёв,

ВЭШ СПбГЭУ

BE ENERGETIC, BE YOUTH!

Join us for ENERGY CHALLENGE 2.0

