

NUCLEAR INNOVATION BOOTCAMP



CONTENTS



INTRODUCTION

Since 2016, **The Nuclear Innovation Bootcamp (NIB)** has enhanced the careers of students and young professionals working or looking to work in the advanced nuclear energy sector. As the demand for experienced leadership, new ideas, and professional development in this field continues to grow, NIB will be an increasingly important recruitment pipeline for diverse, creative, and energetic young talent.

Looking forward, NIB is preparing to embark on the next phase of its development by focusing on three core initiatives:

- Strengthening its commitments to innovation education and increasing diversity in the nuclear energy sector
- Expanding its engagement with a broader range of communities and industries
- Recruiting talent from underrepresented disciplines and professions

Before embarking on these changes, NIB started by learning from those at the center of our program: the 151 participants of our first six Bootcamps who now make up our alumni network. The information in this report is largely based on survey results and interviews from this group. We hope that you will find the information and stories below as motivating as we do.

Respectfully,

The NIB Organizers



OUR MISSION

In 2016, **Dr. Rachel Slaybaugh** (UCBerkeley, ARPA-E, Good Energy Collective) founded the Bootcamp to inspire and train a new generation of nuclear professionals. Diversity, innovation, and entrepreneurship have continued to be the program's core values in terms of NIB's guiding philosophy and how it structures its curriculum. NIB's multidisciplinary curriculum teaches essential skills that foster innovation and entrepreneurship, expanding the pool of talent and producing ideas for the advanced nuclear space to draw upon. By attracting qualified young people from diverse backgrounds and disciplines, the Bootcamp has become a pipeline for connecting new talent with career opportunities while enhancing the skills of those who are already working in the sector.

With the exception of during the COVID-19 pandemic, the structure of the Nuclear Innovation Bootcamp is based each year on a 2-week intensive seminar-style workshop combined with group projects. Participants take courses in a wide range of topics in the mornings and work together on team design projects in the afternoons that are pitched to a panel of expert judges on the last day.



& CORE VALUES

In order to expose participants to a wide range of experiences, NIB brings together leaders from throughout the nuclear energy sphere, related communities in climate and energy, and other industries in order to expose young talent to the cross-cutting needs of clean energy development in the 21st century. Past participants have leveraged their experience to be impactful within various sectors including industry, academia, and government. Some have even gone on to secure their own funding and founded companies based on the ventures they started at the Bootcamp. From the beginning, the Bootcamp has also been committed to removing barriers to cultivating a wide range of new and diverse ideas. To do this, NIB keeps costs very low for participants by funding lodging, meals, necessary supplies, transportation, and networking events throughout our 2-week program. Various levels of support are also offered to our presenters.

INCREASING DIVERSITY minds the tra

A central belief of NIB is that promoting greater diversity in the nuclear energy sector is necessary to build a dynamic, competitive, and productive future workforce. Innovation and entrepreneurialism depend on the inclusion and consideration of fresh perspectives and new ideas. The Bootcamp not only broadens the

minds of participants but actively broadens the traditional reach of the nuclear energy sector's candidate pool. We aim to continue promoting diversity within NIB by striving to include a wide range of disciplines and communities in any and every way possible.

BOOTCAMP PARTICIPANTS

NIB 2023 had the most participants yet!



SURVEY RESPONDENTS





DEGREE DISCIPLINES

The Nuclear Innovation Bootcamp accepts a wide range of individuals with different backgrounds. Applicants must demonstrate a passion for nuclear energy and as a result the majority of participants have studied nuclear energy in some way, whether through nuclear engineering, nuclear safeguards or other related fields. Of the remaining participants, a large number have studied related fields such as mechanical engineering, physics, chemistry or materials science. Those participants who did not study any STEM fields had focused on policy- related fields like law, public policy and international relations.



WHERE ARE THEY NOW?

NIB Alumni's current company and job titles!

International Atomic Energy Agency Kairos 5 Breakthrough Institute Idaho National Laboratory (3 Westinghouse Electric (2 MIT (3 Assystem Caelus Framatome Radical Energy and Material EPRI Siwabessy Initiative Alpha Nur RINA Clearpath Center on Global Energy Policy GenH Ulsan National Institute of Science and Technology Aquafil Voltus AFRY Urenco Capenhurst Lawrence Livermore National Laboratory Longnecker & Associates inc University of Wisconsin-Madison

POSITION

COMPANY

Unemployed 12 Engineer 25 Manager 12 Student 16 Researcher 11 Analyst 4 CEO 4 Consultant 2 Policy Advisor Policy Analyst Policy research scientist National University of Mongolia Commonwealth Fusion Systems Nuclear Decommissioning Authority NAAREA WBUR Naval Sea Systems Command Argonne National Laboratory PwC **Bright Strategies** EY - Parthenon Frame Cancer Therapeutics Ultra Safe Nuclear Ofgem ASML Kyoto Fusioneering United States Air Force Blixt Group United States Navy **UK Atomic Energy Authority KPMG US** Vantaan Energia Oy ATG Europe University of Bristol Hummingbird Scientific PwC Middle East **Ontario Power Generation** Oak Ridge National Laboratory

Advanced reactor research regulator Neutronics methods technical lead Audit associate Policy and Communications Consultant Bioinformatics Scientist Chief Innovator Founder Project director Cyber security researcher

TerraPower **TAQA** Group Saramin Lawrence Livermore National Laboratory Los Alamos National Laboratory Helixos Subsea7 SPARK Alliance NextEra Energy Resources Sandia National Laboratory Goodnews College Breakthrough Energy Ventures Nationale Genossenschaft für die Lagerung radioaktiver Abfälle miHoYo North Carolina State University Arup Homecooks **Vector Atomics** Jacobs NASA Radiant OECD Nuclear Energy Agency

Physics teacher Physicist Astrophysicist Assistance support officer Applications Scientist Performance Improvement Officer Sustainability consultant Nuclear Chemist Associate Coordination Officer Investment Manager Computational Scientist



2023

China

Mexico

Mongolia

Nigeria

United Kingdom

United States

Saudi Arabia

South Africa

Switzerland

~2019

20

South Korea

United Kingdom

United States

Spain

Austria Finland France Japan Sweden Switzerland United Kingdom **United States**

2018 Austria China United Arab Emirates **United States**

United Kingdom

2017 Canada China Nigeria Puerto Rico Switzerland United Arab Emirates United Kingdom

United States

2016

COUNTRIES

Canada China France India United Kingdom United States

Over the past 8 years, NIB has hosted participants from 30 countries around the globe!

NIB 2023 had participants from 16 different countries!

OUR CROSS-CUTTING CURRICULUM

Our presenters come from a range of disciplines and the curriculum they deliver covers topics including:

- Venture fundamentals
- Methods for idea generation and critique
- Cross-cutting needs in nuclear energy systems
- Product development and marketing
- Advanced reactor designs
- Community and stakeholder engagement
- Venture and institutional financing
- Climate change and environmental justice
- Challenges and opportunities for nuclear in the 21st century energy landscape

The Bootcamp's 2-week program is divided into two main activities:

A selection of interdisciplinary courses delivered each day by presenters from around the world who hold distinguished roles in various sectors including industry, academia, and government

2 The team design project in which participants form groups and build their own ventures, which on the last day of the Bootcamp they pitch to a panel of expert judges.

EXAMPLE CURRICULUM: NIB2023

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
		Intros		Finance & Bizz	Field Trip	Field Trip
		Breakfast	Breakfast	Breakfast		
	0.00	Introduction + Logistics		Reactor Decomissioning		· · · Iravel to NPS by Bus ·
		Break	Business Model & Financial Analysis	Technology Development	Travel to Fukushima by Bus	
)		Nuclear Innovation Bootcamp Context		Break		Tokyo Electric Power Company Fukushima Daiich Nuclear Power Station
		Nonproliferation Associated with Fuel Reprocessing	Break Advanced Nuclear Energy Policy	···· Team Project Work ····	Arrive at Fukushima	
		·····LUNCH······	······LUNCH······	· · · · · LUNCH · · · · · ·	••• LUNCH•at Fukushima•••	·····LUNCH·····
	Participant Check in	The Need for Innovative Clean Energy Systems for the Future	Idea generation pt. 2 Refine & Evaluate			
		Panel Discussion		Team Project Work	 Japan Atomic Energy Agency Naraha Center for Remote Control 	Leave to Tokyo by Bus
		Break	Break		[*] Technology Development	
		Idea Generation pt.1	ldea generation pt. 3 Validate + groups selection			
		Opening Keynete		Travel to After Hour Social	Travel to Hotel	
		Speaker			Arrive at Hotel	· · · · · · · Dinner · · · · ·
	Meet & Greet Social	Travel to Opening Reception Venue	Dinner	After Hour Social	· · · · · Dinner · · · · · ·	1st Project Presentation & 1 min pitch
		Opening Dinner & Drinks with Guest Speaker and Presenters from the Day				

1:30

2:30 3:30 4:00 4:30 5:00 5:30 6:30 6:30 7:00 7:30 8:00



	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Theme						
8:00	Breakfast	Breakfast	Breakfast	Breakfast	Breakfast	
8:30			Innovative Nuclear			
9:00	Reflection, Discussion &	Robotics for Sensing and Decomissioning	Energy Systems Resilient to Natural			
9:30			Disasters			Particpant Check-out
10:00	Break	Break	Break	Speaking with Credibility / Final Pitch Practice	DRY RUN: Final Pitch Practice	
10:30						
11:00	Radioactive Waste Management	Speaking with Credibility	Community Engagement & Communications			
11:30						
12:00						
12:30	LUNCH	· · · · · · · · · LUNCH · · · · · ·	LUNCH	LUNCH	LUNCH	
1:00					Welcome	
1:30	Panel Discussion	Speaking with		Rachel S AMA		
2:00		Credibility	Team Project	(ask me anything)	Pitches to Judges	
2:30	Break					
3:00						
3:30	Speaking with Credibility				· · · · Keynote Speaker · · · ·	
4:00	(Intros to Iom)	Team Project		Team Project	Travel to Awardo	
4:30					Reception	
5:00	·····Team Project ·····		••••After Hour Social ••••			
5:30			· · · · · · · · · · · · · · · · · · ·			
6:00	···· Dinner ····	· · · · · · · Dinner · · · · ·	· · · · · · · · · · · · · · · · · · ·	···· Dinner · · · ·	Reception	
6:30					· · · · · · · · · · · · · · · · · · ·	
7:00						
7:30						
8:00						
8.30						



MENTORING

The team design project constitutes a significant portion of the Nuclear Innovation Bootcamp. Throughout the two weeks, participants work in small groups on a venture that will have technical and non-technical components touching upon a wide range of topics. Team members do not have expertise in most of these areas, so our mentors are assigned to groups and serve as experts from across disciplines to be available and answer questions as needed. There are two forms this mentoring can take: continuous mentoring and spot mentoring.

Continuous Mentors are available as a resource throughout the program for a specific

team. One or two mentors will work with each team to provide consistency, perspective, and guidance over the full program. Past participants consider their Continuous Mentors as one of the most useful resources throughout the program and some groups have continued working with them after the Bootcamp ended.

Spot Mentors are available to one or several teams to provide feedback on a specific issue. Participation is largely virtual and mentors are free to set the parameters of their availability and interaction.

DESIGN PROJECTS: LEARNING IN ACTION

Ginico II

The Bootcamp's team design projects make up one-half of the 2-week experience. They teach participants to work together through the process of identifying and designing creative solutions to issues facing the nuclear energy sector as well as broader energy and climate challenges. After building ventures that are then pitched to expert judges, many teams have gone on to win national and international innovation competitions as well as gain private funding to continue developing their ideas.



2016 - Auzel: Energy from Waste

Andrea Saltos, Aristidis (Aries) Loumis, Arun Khuttan, Ian Hamilton, Milos Atz, Nikhil Bharadwaj

Auzel sought to collect energy from nuclear waste heat through the use of photon up-scale converters and IR-photovoltaic cells. Our case study is based on the High-Level Vitrified Waste facility in Sellafield, UK, but our ideal is to apply this to all high-level waste and applications beyond.



2017 - NuWorld

Dylan Addison, Dane de Wet, Mike Ford, Alyssa Hayes, Hassan Qarra, Logan Turk

NuWorld links modern manufacturing methods to advanced reactor technology. We solve a critical problem facing the future of clean energy. Our innovative solution accelerates the deployment of advanced nuclear reactors by an order of magnitude, cutting the costs by half. Our assembly-line solution for the next generation of nuclear power enables a new economic platform for development in the United States and around the world.



2018 - Testing and Irradiation of Materials (TIM)

Francisco Fidalgo, Charley Goodman, Jake Quincey, Brian Shen, Nicole Virgili

TIM is addressing the current backlog and inflexibility in testing of fuels and materials at test reactors around the world. Tim's idea is to take advantage of the untapped subcritical space in which companies like SHINE Medical Technologies operate by using a high flux neutron generator to irradiate a subcritical assembly. This technology will expedite the process of new fuel certification and allow nuclear startup companies focused on Gen IV reactors to mature their designs and reach licensing and commercialization much faster.







2019 - Glacial Melt Mitigation Services (GMMS)

Adnan Wisudhaputra, Ajit Bastola, Bianca Carpinelli, Dinara Ermakova, Jake Littlepage, Sara Ferry, Sree Harsha Bandaru, Viljami Yli-Hemminki

Glacial Melt Mitigation Services (GMMS) is a consulting company that helps national governments, NGOs, and nuclear vendors harness nuclear power to avoid the catastrophic consequences of climatechange induced glacial melt. There are many geoengineering proposals to prevent the melting of ice sheets and glaciers, but these technologies require massive amounts of energy. Advanced nuclear power is the cleanest and most cost-effective choice to meet these energy needs. GMMS works to identify the areas across the globe that are most at-risk from glacial melt, form coalitions across the private and public sectors to act, and advise on relevant matters of international climate and marine policy. We then leverage a deep network of nuclear and infrastructural vendors to design site-specific nuclear-powered glacial melt mitigation solutions.



2022 - Resource Adaptations Solutions (RAS)

Diana Grandas, Paris Porter-Bradley, Cheng-Kai Tai, Natalie Houghtalen

Resource Adaptations Solutions (RAS) provides an innovative technology solution to optimize cooling water use so that nuclear power plants can continue to provide power to communities when they need it most. Our values are core to our operation – we bring Service, Quality, Safety, and Integrity to every customer we serve.

The impacts of climate change are already here, and the time to adapt to avoid the worst of human suffering is now. Rising temperatures and extreme heat waves have become more frequent and severe in recent years. Higher ambient air temperatures increase evaporation rates and decrease soil moisture, making future droughts stronger and longer lasting. Extreme heat threatens power generators, which were not designed with a rapidly changing climate landscape in mind, exposing communities to critical vulnerabilities. Power output is limited by rising temperatures and lack of availability of cooling water. An increase of 2°F in ambient temperatures results in a two percent decrease of total power output, preventing billions of homes from receiving power during the hottest days on record when air conditioning is most needed to prevent death due to heat exposure. Resource Adaptation Solutions is committed to producing an affordable, effective solution that is replicable at any thermal generation station. We Save Water to Save Lives





2023 - Nucleus

Caroline Seyffert, Lewis Handy-Cardenas, Madeleine Lewis, Susannah Lea, Alessandra Totaro Villar

Nucleus is an innovative new contracting company nuclear integrating powerful microreactor technology to fuel the workforce in growing areas of demand-from manufacturing and construction to the clean energy transition. Our team of engineering and policy experts will mobilize and operate rapidly dispatchable carbon-free workforce housing and accessory power sources for industrial projects of all sizes and duration. Our business aims to provide logistics services in the form of temporary housing, connected to a microreactor for electricity and heat. Excess heat can also be harnessed for energy intensive operations, such as hydrogen production and desalination.

THE PEOPLE WHO MAKE IT POSSIBLE





















THE PEOPLE WHO MAKE IT POSSIBLE OUR PARTICIPANTS



Alessandra Totaro VillarHannah HarrisAlice DingIva ReckingAronne TravagliaJack LanzaCaleb RogerJasmine MundCamila Boix MansillaJenifer AvellaneCaroline SeyffertJohn Mobley IVEmile GermonpreJuzel LloydGengchen LiKnight Yeboah

Hannah HarrisLewis Handy-CardenasIva ReckingMadeleine LewisJack LanzaMalik OliverJasmine MundMarley OttmanJenifer Avellaneda DiazNicholas MechamJohn Mobley IVSaleem Al DajaniJuzel LloydSaskia Van Nieuwstadt

Susannah Lea Tsendsuren Amarjargal Umar Ahmad Xiaoqing Huang Xucheng Zhao Yang Zhang



Alessio Iuvara Amy Kynman Cheng-Kai Tai Coleman Smith Diana Grandas Harun Ardiansyah Jared Hoffman Javier Pelegrina Joseph Fustero Kaivalya Lal Kevin O'Sullivan Mason Rodriguez Rand Max Karous Natalie Houghtalen Paris Porter Bradley Rakhmat Eko Saputro Rama Thygaraju Ponangi

Shirley Yong Siddharth Pannir Yanuar Ady Setiawan Zachary Diermyer



Adnan Wisudhaputra Ajit Bastola Albert Houghton Alexia Mercier Anna Benarosch Azusa Konno Bianca Carpinelli Charlyne Smith

Christos Sarafidis Dinara Ermakova Hadiza Mohammed Hareth AlMaskari Igor Gawron Jake Littlepage Jakub Damian Kiira Kalmi Pedro Morino Martinez Pierre Clement Simon Rodrigo de Oliveira Ruaridh Macdonald Sara Ferry Shirley Eseigbe Shono Fujiyama Victor Richet Vighnesh Candassamy Santhanamani Viljami Yli-Hemminki Yana Moysak



Ahmed Alshehhi Benjamin Lilley Brian Shen Charles Goodman Dylan Scallo Edward Chen Francisco Fidalgo Jake Quincey James Egelhoff Jordan Perrone Matthew Herald Jeremiah Mbazor Nicole Virgili Priyarshini Ghosh Richard Reyixiati Repukaiti River Bennett Shane Gallagher Valentin Pauly Yuqiao (Joy) Fan



Adria Peterkin Alyssa Hayes Ari Krause Calvin Parkin Cliff Ghiglieri Courtney McLean Dane de Wet Dylan Addison

Hassan Qarra Jonathan Gjemso Julie George Katie Mummah Lenka Kollar Logan Smith Logan Turk McKinleigh McCabe Michael Ford Mitch Negus Mitchell Sinclair Monica Rodriguez Nkiruka Menankiti Pavel Velkovsky Phillipe Larochelle Shirly Spath Efstathios (Stathis) Vlassopoulos Susan Hakimzadeh Vivek Maradia Xiaojun Zhang

Abdalla Abou Jaoude Andrea Saltos Andres Alvarez Aristidis (Aries) Loumis Arun Khuttan Boris Hombourger Chris Poresky

Cindy Rodriguez Garon Morgan Ian Hamilton James Kendrick Jing Hu Kathryn Yates Kyle Brumback

Mark Mawdsley Megan Casper Michael Martin Milos Atz Modeste Tchakoua Tchouaso Nikhil Bharadwaj

Oscar Espinoza Richard Pearson Sarah Stevenson Shrey Satpathy Steve Clement

THE PEOPLE WHO MAKE IT POSSIBLE OUR PRESENTERS

The Nuclear Innovation Bootcamp would not be possible without the time and energy devoted by its community of presenters. These individuals represent a wide range of backgrounds from both within and outside of the nuclear energy sector. The experience they provide helps our participants to learn lessons from a wide range of industries and disciplines.

By actively seeking out presenters from beyond the nuclear energy space, NIB is becoming a forum with the demonstrated ability to host cross-cutting conversations and build bridges to other climate-and innovation-focused communities.



2023: TOKYO, JAPAN

Adrien Couet, University of Wisconsin Madison Braden Goddard, Virginia Commonwealth University Christine King, Gateway for Accelerated Innovation in Nuclear Elizabeth Helvey, North Wind Services, LLC Gen Endo, Tokyo institute of Technology Hidemasa Yamano, Japan Atomic Energy Agency Hideki Kamide, Japan Atomic Energy Agency Hiroshige Kikura, Tokyo Institute of Technology Hideharu Takahashi, Tokyo Institute of Technology Hirofumi Okada, Tepco Judi Greenwald, Nuclear Innovation Alliance Kazuaki Kito, Hitachi Kazuhito Asano, Toshiba Ken Kahn, Old Dominion University Kuniaki Kawabata, Japan Atomic Energy Agency Lenka Kollar, Helixos Leslie Dewan, Radiant Nano Matt Thompson, Zap Energy

Michael Short, MIT

Mitsuru Uesaka, Japan Atomic Energy Commission Naoaki Okuzum, International Research Institute for Nuclear Decommissioning Rachel Slaybaugh, DCVC Rudy Murgo, Nuscale Satoshi Okada, Hitachi Naoto lizuka, TEPCO Satoru Kamohara, Mitsubishi Industries Shinichi Koyama, Japan Atomic Energy Agency Teruki Fukumatsu, Toshiba Thomas Rusert, Tor House Foundation Takehiko Tsukahara, Tokyo Institute of Technology Tatsuya Katabuch, Tokyo Institute of Technology **Toru Obara**, Tokyo Institute of Technology Tomohiko Arai, Research and Development Bureau Yasuhiro Yuguchi, Toshiba Corporation **Yoshikazu Koma**, Japan Atomic Energy Agency

THANK YOU TO OUR 2022 NEW SPONSORS

2022: MADISON, WISCONSIN, USA

Aditi Verma, University of Michigan Alexia Mercier, OECD Nuclear Energy Agency Ashley Finan, Idaho National Lab Ben Lindley, Realta Fusion **Bianca Carpinelli,** International Atomic Energy Agency Carly Anderson, Prelude Ventures Catherine Clark, DOE Office of Clean Energy Demonstrations Caroline Cochran, Oklo Chris Ritter, Idaho National Laboratory Cindy Vestergaard, RKVST, Inc Chantell Murphy, Y-12 National Security Complex Christine King, Idaho National Laboratory **Douglas Bernauer,** Radiant Elizabeth Helvey, North Wind Services **Emma Wong,** OECD Nuclear Energy Agency Grace Stanke, Miss America Jessica Bufford, Nuclear Threat Initiative Jessica Chow, Katapult Harsh Desai, Zeno Power Judi Greenwald, Nuclear Innovation Alliance

Juliana Gutowski, R/GA Jenifer Shafer, ARPA-E Kenneth Kahn, Old Dominion University Kim Macharia, Space Prize Foundation Leslie Dewan, Radiant Nano Lenka Kollar, Helixos Lou Martinez Sancho, Kairos Power Michael Mazur, Department of Energy Nick Touran, Terra Power Patrick White, Nuclear Innovation Alliance Paul Wilson, University of Wisconsin-Madison **Richard Pearson**, The Journal Of Fusion Energy Ross Radel, SHINE Ray Rothrock, FiftySix Investments Rebeka Seemann, Entergy Rachel Slaybaugh, DCVC Robert Braun, ARC **Thomas Rusert,** Tor-House Foundation Tyler Bernstein, Zeno Power Uuganbayar Otgonbaatar, Constellation Zainub Dungarwalla, Narrative Shift Communications



Adrien Couet, University of Wisconsin Madison Ana Paula Serond, Orano Ashley Finan, Nuclear Innovation Alliance Benoît Blassel, Assystem Canon Bryan, Terrestrial Energy César Alejandro Hernández, International Energy Agency David Hess, World Nuclear Association **Delphine Buisson**, EURUS Ed Bradley, International Atomic Energy Agency Eda Aksoy, Google Elsa Lemaître-Xavier, Andra Fiona Rayment, National Nuclear Laboratory Gaël Patton, Garage 2067 Gregory Piefer, SHINE Medical Technologies Hakima Qrichi-Aniba, CEA Saclay James Magowan, Deetken Capital John Parsons, MIT Ken Kahn, Virginia Commonwealth University Kirsty Gogan, Lucid Catalyst Kirsty Hewitson, National Nuclear Laboratory Manuele Aufiero, Milano Multiphysics Marc Boucker, EDF Maria Isabel Machado, Assystem Martín Gamizo, Nuclearis

Martin Thai, euRHasi Mathieu Saint-Louis, ANDRA Michel Laberge, General Fusion Mireille Martini, OECD Nathalie Collignon, Orano Nathan Paterson, Foratom Paul Evans, ENEA Consulting **Rebecca Sands**, Sciences Po Rebecca Tedesse. OECD NEA Roger Garbil, European Commission Sama Bilbao y León, OECD-NEA Sebastien Diaz, Nuvia Ségolène Perin, ELSAN Shannon Bragg-Sitton, Idaho National Laboratory Stéphane Kaufmann, Ubisoft Sylvestre Pivet, CEA Saclay Troels Schönfeldt, Seaborg Technologies Ursula Johnston, Gowling WLG Valérie Faudon, Société Française d'Energie Nucléaire Valerie Gardner, Nucleation Capital LP Véronique Rouyer, OECD-NEA Vivian Croes, Airbus William D. Magwood, OECD-NEA Yves Desbazeille, Foratom



Adrien Couet, University of Wisconsin Madison Adrienne Little, ARPA-E Alex Polonsky, Morgan Lewis & Bockius Alexandra Wall, UC Berkeley Allison Rinaldi, ARGONAUT Amy Roma, Nuclear Regulatory Commission Anne Leidich, Pillsbury Winthrop Shaw Pittman Ben Goodrich, TerraPower Braden Goddard, Virginia Commonwealth University Candace De Messieres, Nuclear Regulatory Commission **Caroline Winnett**, SkyDeck Chris Comfort, Southern Nuclear David Kramer, Blach Derick Ogg, Department of Energy Dipender Saluja, Capricorn Investment Group Fernando Pérez, UC Berkeley Gigi Wang, UC Berkeley Greg Piefer, SHINE Medical Technologies Jacob DeWitte, Oklo Jerry Bischof, Dominion Energy Jessica Lovering, Breakthrough Institute Jit Bhattacharya, Fenix International Joel Fetter, Booz Allen John Park, VC Taskforce Ken Kahn, Virginia Commonwealth University

Koroush Shirvan, MIT Lara Pierpoint, Exelon Lenka Kollar, NuScale Levon Keusseyan, GE Lucas McCann, Macalester College Maria Millan, CIRM Marilyn Waite, Hewlett Foundation Melanie Warrick, Google Michael Corradini, University of Wisconsin Madison Nick Touran, TerraPower Phil Larochelle, Breakthrough Energy Ventures Rachel Slaybaugh, UC Berkeley Raluca Scarlat, University of Wisconsin Madison Ray Rothrock, RedSeal, Inc. **Richard Meyer**, Kairos Power Richard Muller, Deep Isolation Ron King, Electric Power Research Institute Shelby Williamson, barrettSF Suzanne Gaulocher, Plymouth State University Suzy Baker, Third Way Sydney G. Roberts, Commonwealth Center for Advanced Manufacturing **Thomas Rusert**, Skilled Speaking Todd Allen, Third Way Tsu-Jae King Liu, UC Berkeley Tyson Smith, Winston & Strawn LLP

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Adam Sterling, UC Berkeley Adrien Couet, University of Wisconsin Madison Adrienne Little, ARPA-E Alex Cheung, Tri Alpha Energy Alex Polonsky, Morgan Lewis & Bockius Antoine de Morree, Stanford University Bruce Pittman, NASA Carol Berrigan, Nuclear Energy Institute Chris Comfort. Southern Nuclear Craig Piercy, American Nuclear Society Dan Recht, Volute, Inc. David Kramer, Southern Company Information Technology Organization Dietram Scheufele, University of Wisconsin-Madison Florent Heidet, Argonne National Laboratory Ian Hamilton, Purdue University Joe Kowalczyk, Southern Company Information **Technology** Organization John Carlisle, Chain Reaction Innovations Jose Reyes, NuScale Josh Walter, TerraPower

Kat Manalac, Y Combinator Ken Kahn, Virginia Commonwealth University Koroush Shirvan, MIT Marilyn Waite, Village Capital Matt Thompson, Tri Alpha Energy Max Fratoni, UC Berkeley Mike Laufer, Kairos Power Milos Atz, UC Berkeley Paul Lorenzini. NuScale Pete Moran, DCM Ventures Philip C Hildebrandt, Idaho National Laboratory Rachel Slaybaugh, UC Berkeley Ravi Prasher, lawrence Berkeley National Laboratory Rita Baranwal, Gateway for Accelerated Innovation in Nuclear Ron King, Electric Power Research Institute Sam Shaner, Yellowstone Energy, Inc. Sama Bilbao y León, Virginia Commonwealth University Sara Harmon, UC Berkeley Spencer Nelson, ClearPath Todd Allen, Third Way

Adam Scheider, Advanced Reactor Solutions LLC Alex Cheung, Tri Alpha Energy Alex Polonsky, Morgan Lewis & Bockius Andy Klein, Oregon State University Bala Ramamurthy, Positron Dynamics, Inc., Behnam Taebi, Delft University of Technology Benjamin Reinke, U.S. Senate Committee on Energy and Natural Resources Beth Zotter, Cyclotron Road Brenden Heidrich, Idaho National Laboratory Canon Bryan, Terrestrial Energy Chris Comfort, Southern Nuclear David Charpie, Dun & Bradstreet David B. Matthews, Nuclear Regulatory Commission Dennis Hussey, Electric Power Research Institute **Doug Crawford**, Oak Ridge National Laboratory Ed Blandford, University of New Mexico Gaetan Bonhomme, Kurion Gigi Wang, MG-Team LLC Gil Brown, University of Massachusetts Lowell Ilan Gur, Cyclotron Road Irfan Ali, Advanced Reactor Concepts (ARC) Jacopo Buongiorno, Massachusetts Institute of Technology (MIT) James Lim, Xcell Biosciences Jared Friedman, Y Combinator Jeremy Conrad, Lemnos Labs Jessica Lovering, Breakthrough Institute John Jackson, Idaho National Laboratory Lars Jorgensen, Martingale Leslie Dewan, Transatomic Power Linda Pouliot, Neato Robotics

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THE PEOPLE WHO MAKE IT POSSIBLE

OUR ORGANIZERS

CURRENT ORGANIZERS >

Present and past organizers and advisors of the Nuclear Innovation Bootcamp represent a broad array of expertise across multiple disciplines in the global nuclear energy space



Todd Allen University of Michigan - NERS



River Bennett Radiant



Adrien Couet University of Wisconsin-Madison



Holly Powell GAIN Gateway for Accelerated Innovation in Nuclear



Dinara Ermakova Kairos



Rachel Slaybaugh



Judi Greenwald Nuclear Innovation Alliance



Devin Watts Nuclear Innovation Alliance



Christine King GAIN Gateway for Accelerated Innovation in Nuclear



Mya Zepp Nuclear Innovation Alliance



Andrea Morales NowThen

PAST ORGANIZERS -



Rasheed Auguste UC Berkeley



Milos Atz UC Berkeley



Dr. Rita Baranwal U.S. Department of Energy



Karl van Bibber **UC** Berkeley



Dr. Sama Bilbao y Leon World Nuclear Association



Dr. Alan Bolind UC Berkeley



Canon Bryan Terrestrial Energy



Mikhaila Calice Industry Liaison University of Wisconsin - Madison



Shono Fujiyama Mitsubishi Research Institute



Joey Kabel **UC** Berkeley



Christina Castellanos UC Berkeley



Andrew Greenop US Department of Veteran Affairs



James Kendrick UC Berkeley / Kairos Power



Jessica Chow UC Berkeley / Deep Isolation



Sara Harmon **UC** Berkeley



Elsa Lemaitre-Xavier ANDRA Agence nationale pour la gestion des déchets radioactifs





Tim Crook MCR Performance Solutions



Caroline Hughes Energy Laboratory



Tim Jensen National Renewable University of Wisconsin - Madison



Dr. Ashley Finan National Reactor Innovation Center, INL



Lydia Liu UC Berkeley



Hanna Lorica UC Berkeley



Michael Martin UC San Francisco



Katie Mummah University of Wisconsin - Madison



Mitch Negus UC Berkeley



Nnaemeka Nnamani UC Berkeley



Joshua Rehak UC Berkeley



Kiyoteru Suzuki Mitsubishi Research Institute



Sara Norman University of Michigan



Dr. Jordi Roglans-Ribas Argonne National



Dr. Pavel Tsvetkov



Malisol Ohirko OECD-NEA



Papa Sally AXONE / TechnipFMC



Richard Vasques



Christopher Poresky UC Berkeley / Kairos Power



Kathy Shield UC Berkeley



Gigi Wang Texas A&M University Ohio State University UC Berkeley, LUMICKS, **MG-Team LLC**



Brett Rampal Clean Air Task Force



Dr. Koroush Shirvan Massachusetts Institute of Technology



Yishu Qiu UC Berkeley

OUR LASTING IMPACT

The success of advanced nuclear energy will undoubtedly depend on the development of groundbreaking technologies. However, this will require more than just investing in scientific research; it will come from investing in the people and expertise-building that brings about widespread, rapid innovation.

Our definition of "experienced leadership" must adapt to meet the new challenges of this century. A career built on advanced degrees and traditional industry experience alone will not provide the insight needed for nuclear energy to find the spaces and applications where it will thrive. The Bootcamp is proud to continue identifying and enhancing the careers of a new class of leaders, ready to meaningfully contribute to the urgent environmental, climate, and energy challenges of this century.

"If I could sign up again, I would in a heartbeat"_____

- Aronne Travaglia '23

"I appreciate everything that the organizers did to make this happen, it was an incredible experience and I will forever be grateful to have been considered."

- Jenifer Avellaneda Diaz '23

"THANK YOU THANK YOU THANK YOU! What an incredible experience - it was truly life-changing for me and I hope to stay in touch with many people from the Bootcamp."

"Overall I'm really happy with

the program since it provided

a lot of perspective I don't get

as a reactor physicist. A lot of

policy, finances, and speaking

lessons that were overdue for

me to learn."

- Samuel Garcia '23

- Jared Hoffman '22

TESTIMONIALS

"No words can describe how grateful I am to have attended NIB for 2 full weeks."

- Yanuar Ady Setiawan '22

"This was an extremely interesting and insightful conference, I am grateful for this opportunity and will definitely take the learning forward to initiate a change in mindset on operations within my company. Thank you everyone for a terrific 2 weeks!"

- Hareth AlMaskari '19

"The people chosen to attend the Bootcamp were absolutely perfect. Such a diverse range of people from all over and from many different backgrounds. Usually, when I attend these things I feel like such the odd one out. The only black person in the room, the only person of a different religion, the only woman, the only immigrant, the only person with a non-conventional work history. But at the bootcamp it was different and I felt 100 percent comfortable and relaxed and at home with the mix of people present."

- Hadiza Mohammed '19

"Best 2 weeks. First time I loved sleepless nights"

- Vighnesh Candassamy Santhanamani '19

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CAELUS S.R.L

Initially an idea born at the Nuclear Innovation Bootcamp in 2022, CAELUS S.R.L, led by NIB Alum Alessio Iuvara, has since become a realworld company with a bright future. CAELUS is the first and only software company that aims to ensure a reduction in the time and costs related to the licensing of new nuclear technologies. This is all possible thanks to the insights, knowledge, and hard work of a team close-knit and determined to shake up the nuclear power industry. CAELUS intends to distribute cuttingedge software available to companies in the nuclear industry. To do that, they developed a fully integrated, AI-powered modular environment. This will allow engineers to standardize their workflow and automatically produce licensing documents required for the industrial deployment of new nuclear technologies, focusing on S.M.R. reactors. CAELUS's goal is to reduce costly and time-consuming mistakes that an engineer may commit in carrying out complex and iterative projects that must follow strict and copious regulations. Their mission is to enable nuclear energy by putting a revolutionary tool in the hands of engineers. Their vision is to foster the path toward a rightful energy transition.



Though not initially thought up at Bootcamp, both founders of Alpha Nur (Kevin O'Sullivan and Mason Rodriguez Rand) attended the Nuclear Innovation Bootcamp in 2022 and, according to co-founder and CEO Kevin O'Sullivan, "so much of what I am has been refined and defined by my time at NIB." Alpha Nur's mission is to build the country's safe, clean, affordable, and secure energy future with modernized nuclear energy. To do so, Alpha Nur is working to fuel tomorrow's reactors with sustainably sourced nuclear fuels. Their values include early and continuous engagement with host locality stakeholders. Alpha Nur is one example of how the skills obtained from NIB can be used to create innovative ideas and businesses.

BOOTCAMP THROUGH THE YEARS

































