

PLANET MASTERS

A
BETTER
PLACE FOR **EVERYONE**

PROGRAM **CHANGE THE WORLD**

CTW Program educates, inspires and empowers people from all over the world to solve the most difficult problems of the planet. Our goal is to implement solutions to solve the problems on: healthcare, human longevity, education, energy, security, food, water, and many, many, other global problems.

The program provides participants with a clear vision of the world's most crucial problems, and challenges and supports them to find solutions for these massive problems.



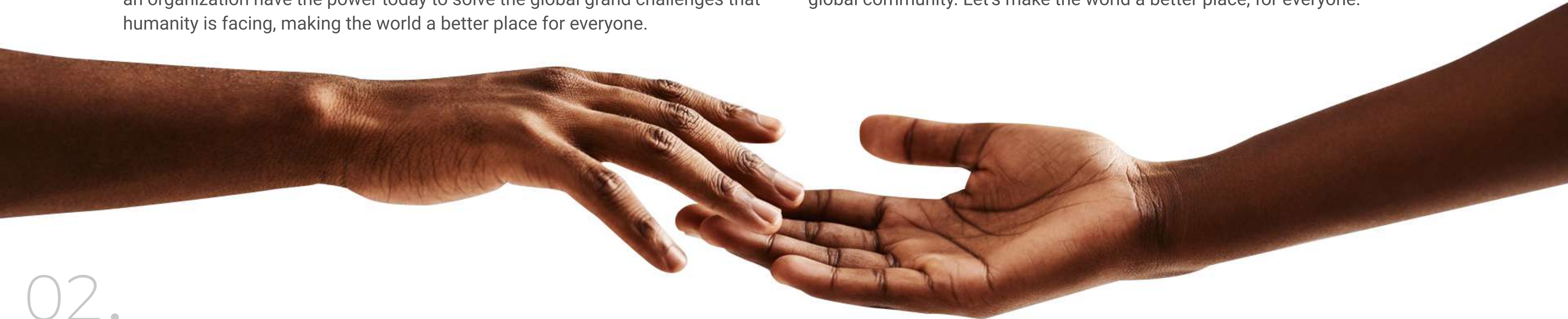
INTRODUCTION

In this program individuals and organisations will learn, network, and search for breakthrough solutions to tackle some of the worlds most challenging problems. **In the first day** you will learn about the worlds' most urgent problems, including: poverty, water, food, shelter, education, security, healthcare, energy, space, the environment, and others. **On the second day**, you will learn about emerging technologies that have the power to help solve this global challenges, including: robotics, artificial intelligence, nanotechnology, 3D printing, supercomputers, biotechnology, among others.

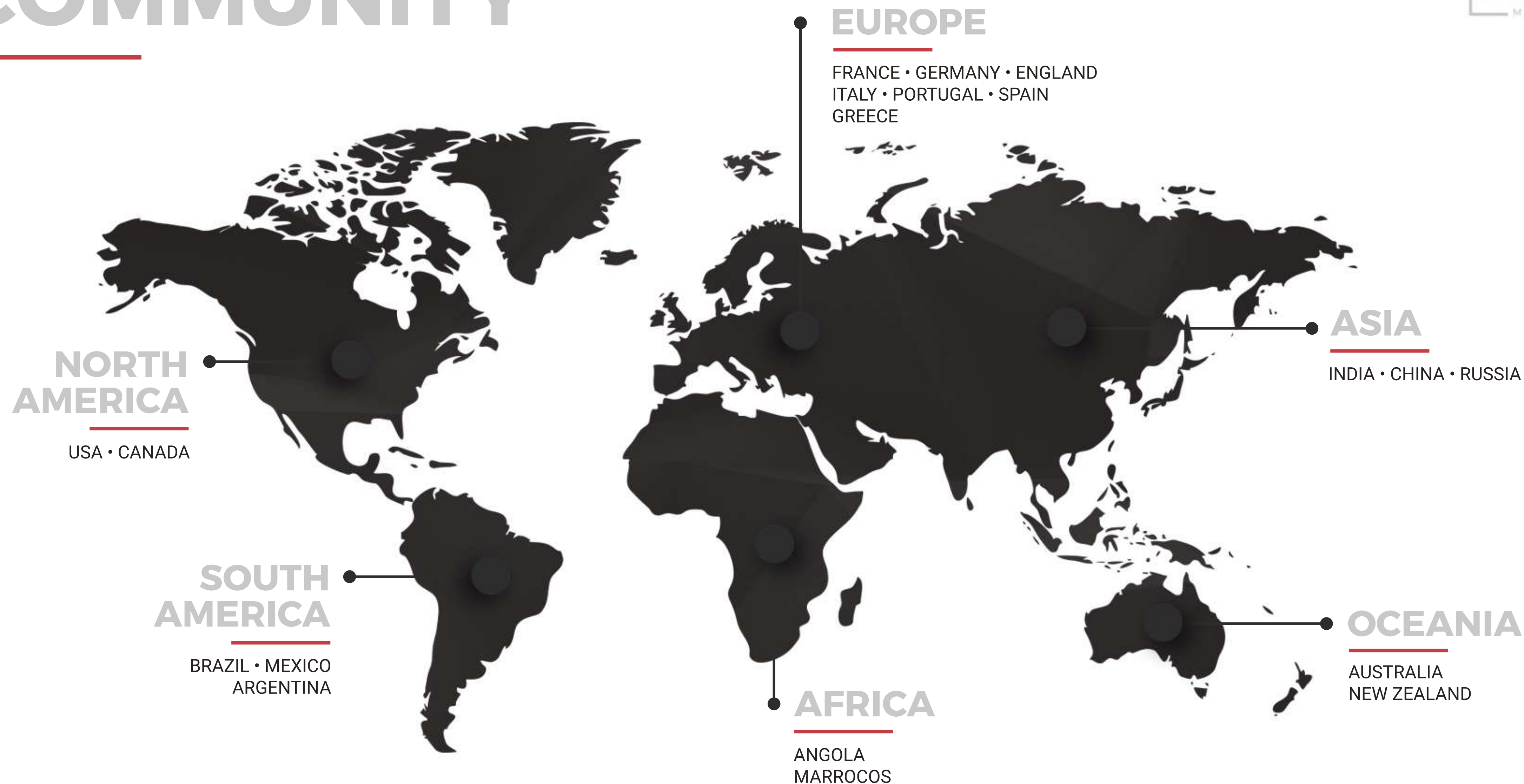
In this program, you will join a global community that includes entrepreneurs, corporations, global nonprofits, governments, investors, creatives, and academic institutions. We believe an innovative person, a team, a company, or an organization have the power today to solve the global grand challenges that humanity is facing, making the world a better place for everyone.

While learning about the global challenges, and while learning about the most promising technological solutions for those problems, you will have two main missions: (1) to ensure the basic needs are met for everyone on the planet, (2) improve the quality of life for everyone in developed and developing countries. By solving the global challenges, we must always keep in mind that we must not accidentally create new problems in our efforts to solve the current problems.

As our ecosystem grows, we are working as hard as humanly possible to connect our community and to promote and nurture collaborative work to solve the global challenges. Join us, and contribute to solve the worlds most urgent problems. By applying to our program, you are taking the first step to join our global community. Let's make the world a better place, for everyone.



COMMUNITY



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GLOBAL PROBLEMS

05.

FOOD

The number of children in the world without access to proper nutrition is tremendously high and this is a major cause of illness. Undernourishment, caused by lack of access to food, is caused by political instability, conflict, economic instability, drought, and other causes. Hunger debilitates the human immune system and causes suffering around the world. There are approximately 800 million chronically undernourished people in the world, which means that one in nine people in the world does not have access to enough food to have a healthy nutrition. Hunger and malnutrition are the number one risk to human health on planet earth. One-third of the global population is malnourished, and experiences undernourishment or suffering from: diabetes, obesity, or other food-related diseases.

POVERTY

Nearly 1 Billion people still live in extreme poverty and earn less than \$2 per day, with a large majority living in South Asia and Sub-Saharan Africa. But, poverty is not restricted to developing countries, with more than 10% of Americans living in poverty. Poverty has a major impact on the health and quality of life of people.

Emerging technologies will dramatically lower the cost of products, goods, and services and will thus help create a world where everyone has access to proper quality of life. Several technologies are strictly related with fighting poverty, for exemple access to internet which empowers communities to communicate and learn almost at zero cost.

WATER

Approximately 1 Billion people around the world still do not have access to potable drinkable water, and approximately 2.3 billion people still do not have access to basic sanitation services. The second leading cause of death of children globally, every year, is the contraction of diarrhoeal diseases, which would be preventable with safe water and sanitation. So, by solving this global problem, it would have a great impact on the challenge of global health, environment, security, and governance. Water is also essential for agriculture and industrial activities, and approximately 40 percent of the world's grain production and one-fourth of the global economy are at risk due to unsustainable water use.

SHELTER

Providing safe shelter for everyone on planet earth would have a tremendous impact on several other global problems, including: health, prosperity, disaster resilience, and security. Approximately 1 Billion people still live in slums, and approximately 100 million live in temporary shelters. These numbers show that provide everyone on earth with permanent housing is a big challenge but can be done, and in the near future, two-thirds of humanity is expected to live in urban areas.

EDUCATION

To change the world we need to improve the access to education and the quality of the education, not just for children but also for adults to learn new skills that empower them to adapt to our rapidly changing world. Education quality is reflected in properly trained teachers, good standard physical infrastructures, updated scholar curriculums that teach relevant skills to today's world. Proper education typically requires solving other interrelated problems, including socio-economic problems, malnourishment, illness, poverty, and health problems.

HEALTH

In developing countries, approximately 400 million people have no access to essential healthcare. In the poorest regions of our planet, there are still people dying from Cholera, Ebola, and global air pollution. On developed countries, on one hand, we are living longer lives, but on the other hand, more than 15 Million people, per year, died of a non-communicable disease, such as, cardiovascular disease, chronic respiratory disease, diabetes, or cancer. Globally, the healthcare business is almost a \$9 trillion industry.

SECURITY

Governments have been responsible for ensuring the security of their citizens, but private organizations are now helping protect individuals from security risks. Emerging technologies are helping protect refugees at war zones, and also minorities facing human tracking or sexual exploitation. Artificial intelligence and image recognition applications are playing a serious role in ending sex trafficking by scanning the many images of exploited children online. Blockchain initiatives are creating blockchain-based identities for refugees, and can reduce corruption, improve logistics, and ensure safety. Virtual reality is being used to prevent conflict and develop empathy for those living in conflict zones.

SPACE

The last two decades have witnessed a radical change in the space sector. Two decades ago, governments were the only players in the space industry, but today, emerging space technologies are empowering thousands of private space companies, and even startups, to launch satellites and communications technologies, work on space manufacturing, space mining, space robotics, and other space-related industries. These private initiatives are being empowered by the venture capital firms that poured more than \$18 billion into the space industry in the last decade.

ENERGY

Approximately one in seven people in the planet today, still lacks access to electricity. As there are more than 7 Billion people in the planet, that means that almost 1 Billion people has no access to electricity today. More precisely the number of people living without electricity dropped to roughly 840 million recently, from one billion in 2016 and 1.2 billion in 2010. So, progress is happening globally, but we have accelerate it.

ENVIRONMENT

Environment related global problems include: global warming, air pollution, biodiversity preservation, preservation of forests, pollution in oceans and water, and many more.

Starting with global warming and air pollution it is fundamental to mention that global warming threatens humanity's survival, and rising temperatures are melting ice caps and rising ocean levels, causing droughts, and floods. Air pollution results in 4.2 million deaths per year, with more than 91 percent of the world's population living in areas where air pollution exceeds healthy limits.

DISASTERS

Humanity has faced numerous disasters, including: war, hurricanes, cyclones, earthquakes, tsunamis, floods, and droughts. Natural disasters, alone, have caused \$3 trillion in damages, considering only 21st century.

Emerging technologies are a power tool to create solutions for preventing, preparing, and responding to disasters. For example, low-cost sensors are helping people predict impending disasters, such as, earthquakes and tsunamis. Sensors are also being used to detect air and water pollution or terrorist attacks. Once a disaster strikes, satellites, virtual and augmented reality systems, sensors, drones, and robots can be a set of power tools to help first responders.

GOVERNANCE

People living under governments control have different degrees of freedom, with only slightly more than 50 percent of the world's countries being considered democracies. Historically, the spread of democracy has been deeply linked to the invention and spread of technology. Emerging technologies can make governance more efficient, transparent, accountable, personalized, and accessible to their constituents. With emerging technologies, such as artificial intelligence, robotics, and digital biology, all individuals are powerful, and can use their power to help or harm others.

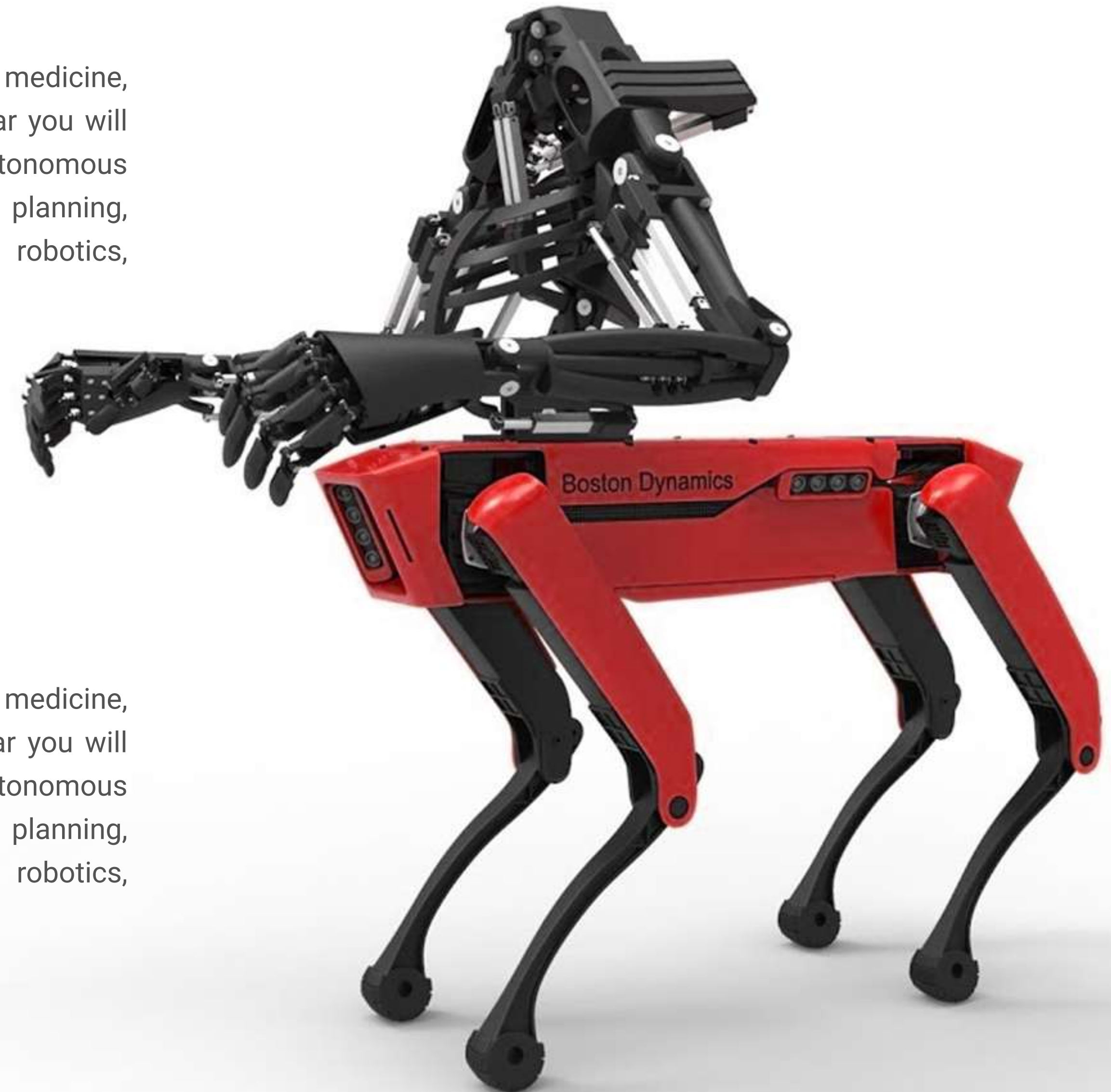
TECHNOLOGIES

ROBOTICS

You will learn about: robotic applications in transportation, home, medicine, security, internet, entertainment, space, and other areas. In particular you will learn the developments in: humanoid robotics, robotic surgeries, autonomous transportation, home-automation, efficient exploration of space, planning, hardware systems, mobility, human-robot interactions, agricultural robotics, autonomous vehicles, micro-robotics and nano-robotics.

ARTIFICIAL INTELLIGENCE

You will learn about: robotic applications in transportation, home, medicine, security, internet, entertainment, space, and other areas. In particular you will learn the developments in: humanoid robotics, robotic surgeries, autonomous transportation, home-automation, efficient exploration of space, planning, hardware systems, mobility, human-robot interactions, agricultural robotics, autonomous vehicles, micro-robotics and nano-robotics.



NANOTECHNOLOGY

You will learn about Nano particles for medical applications, advanced nanorobotic systems on construction and healthcare, Lithography (microfabrication), Carbon nanoparticles, Nanomaterials, Optofluidics, Nanoelectronics, Plasmonics, Nanomanufacturing, Scanning probe microscopy. You will also learn about the long-term future with nanofactories and the emergence of the physical revolution.

BIOTECHNOLOGY

You will learn about the advances in biotechnology and its applications in: personalized medicine, genomics, synthetic biology, systems biology, DNA sequencing, cell imaging, genomics, proteomics, ultra-rapid, low-cost gene sequencing, high-speed full-genome sequencing, ultra-rapid low-cost DNA writing, selective gene manipulation/substitution, ethics of gene modification, microfluidics and single-molecule technologies.

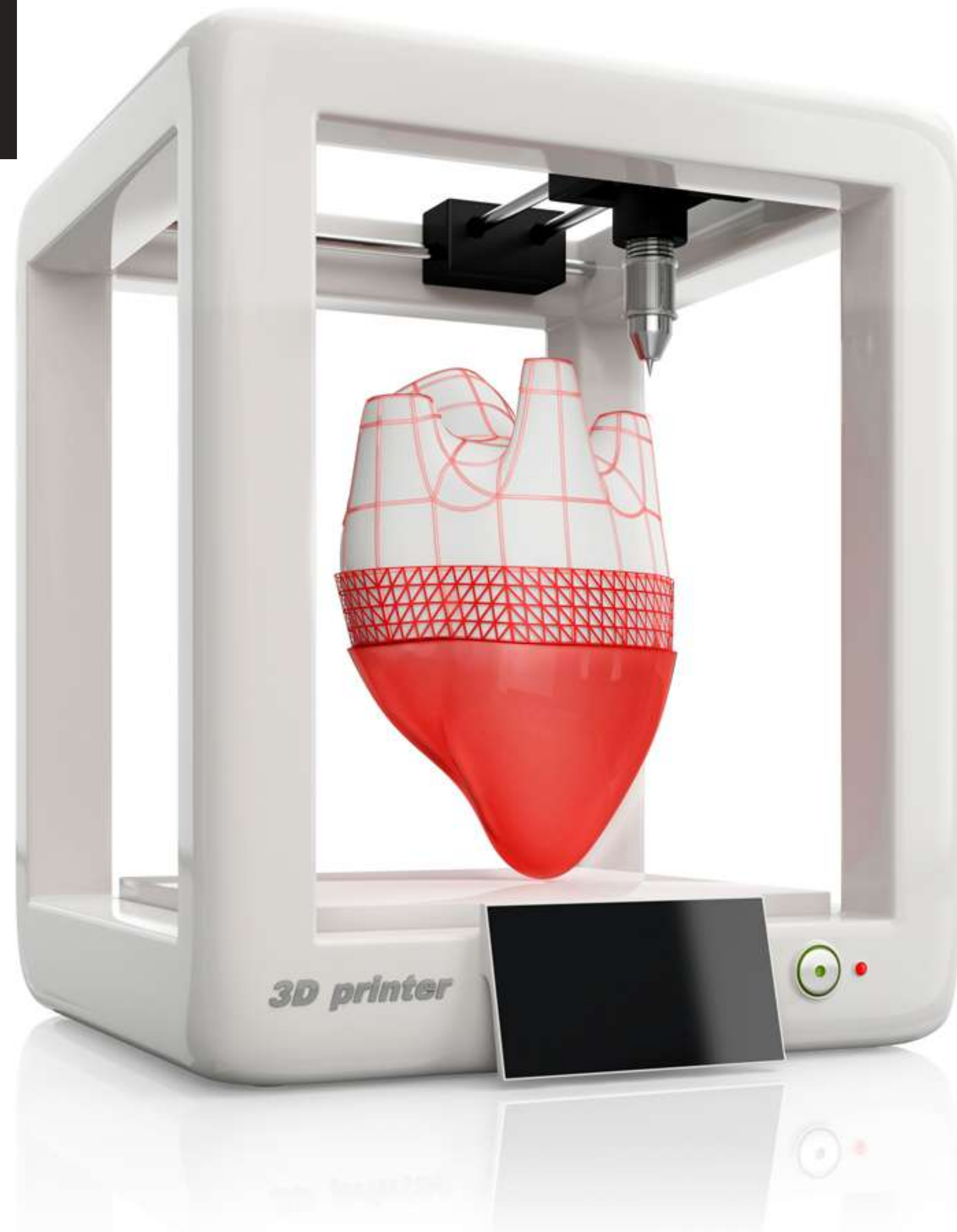
SUPERCOMPUTERS

You will learn about the Silicon limits and the future of Von Neumann computing systems, supercomputers, Petascale and Exascale computing, distributed massively parallel supercomputing, biological computing systems, quantum electronics, DNA based information storage systems, quantum computing. You will also learn about Computing applications in healthcare, finance, and political systems.

NEUROSCIENCE

You will learn about the future of human neuroscience, including: Digital preservation of information, 3D printing or brain tissue, neuroimaging, brain organoids, robotic brain surgeries and the future of neuro-surgery.





MEDICINE

You will learn about the future of medicine, including: nanomedicine, nanorobotics, human enhancement, micro-surgery, post-humans, robotic surgeries, artificial organs, 3D printing of body organs, human enhancement and life extension technologies.

3D PRINTING

You will learn about: 3D printers, the MakerBot, the RepRap, Countour crafting and the 3D printing of houses, 3D printing of food, 3D printing of electronic circuits, 3D printing in the fashion industry, 3D bioprinting.

ENERGY TECHNOLOGIES

You will learn about: Electric Grid 2.0, energy storage technologies. Renewable energy production, including solar, wind, geothermal, biological, nuclear, and other forms of energy. Fuel cells, energy conservation & efficiency. Climate models and strategies. Global carbon and nitrogen cycles.

SPACE TECHNOLOGIES

Space technologies are fundamental for the long-term survival of the human species. You will learn about: space tourism, 3D printing in space, Mining in space, Spaceflight technologies, micro-satellite technologies, propulsion systems, In-space propulsion technologies, space elevators and other nanotechnology-based space applications.



BRAIN COMPUTER INTERFACES

You will learn about: brain-machine interface, Brain-to-Brain interface systems, Brain-computer interface, Neuralink, Brain implants, BrainGate, Electrical brain stimulation, Neural dust, OpenBCI, Optogenetics, micro-electrode arrays.

AUTONOMOUS VEHICLES

You will learn about: autonomous cars, Automatic parking, autonomous transportation systems, Artificial vision, Robo-Taxis, Self-driving trucks, LiDAR sensor technology, unmanned aerial vehicle (UAV), VTOL vehicles, Volocopters, sensors in cars and airplanes, artificial intelligence systems.

TRANSVERSAL COMPONENTS OF ENTREPRENEURSHIP AND COMPANY MANAGEMENT



ENTREPRE- NEURSHIP

You will learn about entrepreneurship and the traits for success. You will learn the best tools for how to improve your self-motivation. You will learn the importance of understanding what you offer, when to take risks, how to improve your Network, and the most important money management skills. You will learn how your passion and mission are critical for success, and the importance of flexibility in a rapidly changing environment.

DESIGN THINKING

Design Thinking is an iterative process to understand the user, providing a solution-based approach to solve problems. Design Thinking will help you developing an understanding your customer, and how to better adequate your products or services. You will learn about improving empathy with the target user, understand the process of questioning the problem, the assumptions, and the implications, and also re-framing the problem in human-centric ways. You will learn about sketching, prototyping, testing, and trying out concepts and ideas.

DATA ORIENTATION

You will learn about the importance of making data oriented decisions. The role of data in a company is to empower you to make decisions based on facts, trends and statistical numbers, not gut-feelings or emotions. Today, business leaders must be able to navigate very noisy environments, and in the process focus only on the right pieces of information, so that they can make the best decisions for growth.

FORECAS- TING

Forecasting can have a major role in driving a company towards success or failure. Timing is crucial in business, specially if you are making technology based products or services. Accurate forecasting will help the company make the right decisions and investments, while keeping prices low and optimising business operation.

ENTRE
PRENE
URSHIP



LAW AND POLICIES

The rule of law gives everyone a framework for how to act and operate. You will learn the fundamental laws and policies important for your business and you will understand why the rule of law is important to your business.

ECONOMY

In a strong economy, most businesses enjoy great prosperity. You will learn the importance of a strong economy on start-ups and businesses. As your business grows, so your need to keep pace with demand by hiring additional employees, expanding retail space or adding new product lines.

ETHICS

You will learn the importance of socially responsible businesses. Socially responsible businesses win the trust and respect of their customers, and also the society, as well as their employees. In the long run, socially responsible businesses have more sustainable profits. Business ethics debates ethics in the workplace, but also with relation to the environmental, cultural, and social structures of the local communities.

ENTRE
PRENE
URSHIP



EVENT VENUE

PORTUGAL

Portugal was recently considered, by the World Travel Awards, the World's Best Destination. Portugal history and culture, gastronomy and wines, are among the main attractions, not to mention the beaches, surfing, music festivals, golf, the varied landscapes and, above all, the Portuguese people, who are seen as affable, open and sincere.

AIRPORT

Francisco Sá Carneiro Airport (IATA: OPO, ICAO: LPPR) or simply Porto Airport is an international airport near Porto (Oporto), Portugal. It is located 11 km (6.8 mi) northwest of the centre of Porto, in the municipalities of Maia, Matosinhos and Vila do Conde.



SPEAKERS



JAMIE BURROWS, PH.D.

Founder and CEO of Vertical Future with over 15 years of experience and educated to PhD level.

Vertical Future is the world's leading vertical farming technology and research company – providing revolutionary products and services that enable people and nature to thrive.

With passion, knowledge, and innovation at its core, we are committed to empowering people to produce high-quality, nutrient-rich crops in the most optimal, efficient, and sustainable way.

We wholeheartedly believe that through the power of technology and human ingenuity, we can tackle climate change, reduce inequalities, and improve population health, building a better future for all.

A Vertical Future is one where global crop production is no longer at threat, humans are healthier, and there is a better balance between population growth and the natural world.



EMELI ERICSSON

Designer, Creative Consultant and the founder of {A Conscious Space}.

Emeli Ericsson is a Designer, Creative Consultant and the founder of {A Conscious Space} which offers conscious interior styling, guided meditations and women's circles in Stockholm and Berlin.

Her work is based on a respect for the environment, a genuine interest in her clients' needs and a strong

belief that our home environment affects our well being and vice versa. As within so without.

In her women's circles and guided meditations she focuses on self love and connecting to our innate knowledge, imagination, creativity and the healing power of beauty.



CAROLINA SEVILLA

Former diplomat and lawyer now cleaning up the oceans from plastic pollution.

Carolina is a lawyer and former diplomat with more than 20 years of experience in non governmental organizations, foreign affairs and government agencies. She is an attorney and lawyer with a Master of Arts in Human Rights. She represented Costa Rica at the United Nations when Costa Rica was part of the Security Council from 2008-2011. She also served as a Consul of Costa Rica in New York for 6 years.

Now, she has her Lawfirm in Santa Teresa, Costa Rica, and she runs a non-profit organization FIVE MINUTE FOUNDATION who's mission is to protect the oceans from plastic pollution.

She is now known worldwide for creating a global

movement called #5minutebeachcleanup. Her videos count more than 20 million views and have inspired people from all over the world to take action and clean beaches and also to change their lifestyle.

She works as a speaker and consultant on environmental and regenerative issues and she had started her own non-profit organization Five Minute Foundation not just to create even more awareness, but to educate entire communities on plastic pollution through their own educational programs, and also, among others, to start circular economy projects and be able to upcycle marine plastic in Costa Rica first, and replicate them around the world.



TOMER SHOR

Founder & CEO at Tunefork.

Tomer started his professional work as intelligence analyst and project manager at IDF elite unit 8200. After a few years he became a data-analyst and a product manager with a small team of 3-5 people.

Tomer has a great connection to the problems encountered by the hearing impaired because of his father who

was injured during his military service. Tomer founded Tunefork with Yoav Blau in 2016 to – a technological startup aims to help people with hearing loss and improve audio and sound experience for all. Tunefork raised 3.5 million dollars and generated more than 200K in revenues to date.

STEVEN GARAN, PH.D.

Director of Bioinformatics at CREA and serves on it's Advisory Board.

Steven A. Garan is the Director of Bioinformatics at CREA and serves on it's Advisory Board, he is also a researcher at the Lawrence Berkeley National Laboratory. While at the University of California, Berkeley, he played a major role in the invention and the development of the Automated Imaging Microscope System (AIMS). While at UC Berkeley, Garan collaborated for many years with a group from Paola S. Timiras's lab, on the role that caloric restriction plays in maintaining estrogen receptor-alpha and IGH-1 receptor immunoreactivity in various nuclei of the mouse hypothalamus. Garan was also the director of the Aging Research Centre, and is a leading scientist in the field of aging research. His numerous publications, include articles on systems biology, the effects of caloric restriction on the mouse hypothalamus and on the Automated Imaging Microscope System (AIMS). He is best known for the coining of word "Phenomics", which was defined in an abstract titled: "Phenomics: a new direction for the study of neuroendocrine aging", that was published in the journal Experimental Gerontology.

Steven A. Garan, was the lead scientists that developed the AIMS system along with Warren Freitag, Jason Neudorf and members of the UC Berkeley lab where

AIMS was developed and utilized. Many journals articles have been published about the system and the results that it produced. Since the completion of the first version in 1998, newer versions were developed, with the final version being completed in 2007. Empowering investigators to accurately count specific cell populations is essential to all fields of neurobiology. While computer assisted counting technology has been in use for over a decade, advances in an Automated Imaging Microscope System (AIMS), now insure 97% accuracy when comparing computer counts to human counts for both nuclear and cytoplasmic stained tissue. More importantly, regional analysis can now be customized so that only cell populations within specified anatomic regions will be targeted for counting, thus reducing the background noise of non-immunoreactive cells when characterizing specific cell populations. This application was recently used to successfully map the density and distribution of both nuclear expressed estrogen receptor-alpha and cytoplasmically expressed IGF-1 receptor in specific hypothalamic nuclei. Furthermore, AIMS can now detect intra-hypothalamic differences in receptor expression and measure phenomenon such as lateralization.



NUNO MARTINS, PH.D.

Polymath, researcher, entrepreneur, and a healthy life extension advocate.

Nuno is a polymath, a researcher, an entrepreneur, and a life and health extension advocate. As a polymath, he usually likes to make use of different subject areas, drawing ideas and concepts from different bodies of knowledge to solve specific problems.

As an illustrative example, his published papers involve several fields of research, for example: quantitative neuroscience, computer science, nanotechnology, robotics, and others. Several previous education experiences have supported and nurtured his polymath approach to problems. As a researcher, he is interested in any scientific, engineering, or technological development with potential applications or consequences for healthy life extension. Along these lines, he is currently a focused on developing technologies for human healthy life extension.

In business, he created his own company to fund his education. Along the way, several academic awards and grants contributed to his necessary funding strategy. The growth of his original company permitted him to create a business group embracing a set of different companies that operate in a large spectrum of business sectors, including: business consulting, educa-

tion, information technologies, healthcare services, online sales, and several others.

On life extension related topics, early in his life, motivated to take control of his own health he decided to make several courses related to health-care, body training and nutrition. Thus, he completed several courses related to life and health care, for example, he is a swimming teacher, a professional tennis teacher, a body-building and aero- fitness teacher, a power-lifting professor, and he completed also several courses in nutrition and sleep optimization.

As public speaker Nuno participates in conferences and meeting providing high quality professional presentations in his style. One of Nuno's public appearances was on a groundbreaking large conference (attended by approximately one thousand attendees), where Nuno presented along with amazing celebrities, such as: the visionary billionaire Peter Nygard, the always inspiring Suzanne Somers, and the famous futurist Ray Kurzweil, among many other celebrities... Nuno makes easy the understanding of technical challenging subjects , making accessible to the general audience the most difficult problems.



JOSÉ LUIS CABAÑERO

Founder & CEO, Eatable Adventures.

s the founder of Eatable Adventures back in 2015, José Luis pioneered the nascent Food Entrepreneurship movement in Europe; which resulted in an emerging ecosystem of new companies that are improving the way we eat. He also led the launch of Gastroemprendedores, the largest global network of Food & Beverages Startup founders and entrepreneurs, reaching well over 25.000 individuals; similarly launched Food Business Angels, the first global network of early stage investors in early stage phases of F&B startups.

Prior to his involvement in the Food Space, he has been active in the innovation and new technologies industry for almost 30 years, working with such international

corporations as Cisco, Oracle, BBVA and Unisys as EMEA and LATAM new markets and emerging sectors development business director.

Educated as a Computing Engineer at Extremadura University, José Luis completed his tech studies with business and culinary studies at Stanford University – Graduate School of Business’ Executive Program – Le Cordon Bleu at Francisco de Vitoria University in Madrid – Diplôme de Cuisine – Reims Champagne-Ardenne University – Diplôme Universitaire DUGGAT – and Haas Business School Berkeley University – Venture Capital Executive Program.



DR. SAJAD ZALZALA

Co-founder and Chief Medical Officer of AgelessRx.

Dr. Zalzala combines unique qualities of an experienced doctor passionate about disease prevention and longevity, and a serial entrepreneur. Sajad has been passionate about slowing down and reversing age-related diseases for 20 years. In fact he decided to become a doctor after reading Ray Kurzweil's books.

Sajad is one of a few MD's personally licensed in all 50 States, DC and Ontario. He has extensive experience in working with startup companies in the telemedicine/telehealth field and has been an advisor to multiple successful healthcare start ups (Pill Club, Jack Health, forHims).

REPRESENTED ORGANIZATIONS





ONLINE

€159

BUY TICKET NOW

- ✓ Access to all conference talks
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- ✓ Explore all livestream topics covering current biggest trends
- ✓ Network and connect with our speakers and participants
- ✓ Upskill through our experts knowledge
- ✓ Make valuable connections within our global network
- ✓ Meet the world's most exciting companies in the space

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- ✓ Full access to Expo Area

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- ✓ **VIP** seating
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PREMIUM

€2460

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- ✓ Full access to Expo Area
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