



USAT

# United Scientists Association of Technology Inc.

## Our Mission

The establishment of a decentralised network for the development and distribution of technologies that will benefit humanity and the planet.

## Our Values

- **Integrity:** we are honest, ethical, and keep our promises
- **Innovation:** we live on the cutting edge. We strive to be constantly pushing the boundaries of what is possible in science and technology
- **Decentralisation:** we want people to be empowered to develop great ideas, wherever they are and whatever their circumstances. The key to this is utilising blockchain technology
- **Knowledge:** we are supported by scientists and support them in turn. We value education, research, the joy of discovery, and the empowerment learning brings
- **Sharing:** we exist to share what we create with the world. Many great minds entrust us with their ideas so that their inventions will be used to make a positive impact on the world and that's exactly what we make happen

## Our Vision

To develop breakthrough, innovative products which will have a positive impact on the world and its people.

## About the United Scientists Association of Technology Inc.

Founded in 2017, the United Scientists Association of Technology Inc. is a not-for-profit organisation created to fund, develop, and implement technologies that are of benefit to humanity and the planet. The USAT Inc. platform was a response to the difficulties often faced by innovators and inventors in getting their ideas off the ground: from the arduous process of patenting an idea, to the fight for funding, to the daunting task of production and commercialisation... it's no wonder that many incredible inventions never make it past the idea stage.

The United Scientists Association of Technology Inc. is here to change that. Through the USAT platform, inventors are given a clear path to bringing an idea to fruition in a way that guarantees liberty, autonomy, and security of all participants.

The process is simple: once an idea submitted to the United Scientists Association of Technology Inc. has been approved (on the basis of its engineering and commercial merit), the platform assists inventors in patenting their idea, then purchases the patents and rights for an agreed upon fee. Then the United Scientists Association of Technology Inc.'s marketing division facilitate the sale or licensing of the product to end users, such as governments or private industry.

### The USAT Token

A key aspect of the USAT Inc. platform's assurance of liberty, security, and autonomy of all participants, is the use of blockchain technology. This is an important step towards the United Scientists Association of Technology Inc.'s goal of decentralising the intellectual property (IP) process and it takes the form of the USAT Token.

USAT Tokens are smart-contract issued tokens that allow holders to be part-owners of the United Scientists Association of Technology Inc.'s current and future IP. It is the currency of the USAT Inc. platform, used for paying application fees, to pay for the acquisition of IP, and for purchases made by all non-government end users.

The USAT tokens have a store of value. As the USAT Inc. platform grows and its technologies go to market, the value of the coin is expected to increase as well. Anyone may purchase USAT Tokens and either keep them whilst they appreciate or exchange them for other cryptocurrencies such as Bitcoin and Ethereum, or for traditional currencies.

The Initial Coin Offering (ICO) has launched and USAT Tokens may be purchased via a link provided on the United Scientists Association of Technology Inc.'s website.

## Humanitarian mission

The United Scientists Association of Technology Inc. is constantly acquiring IP and it is part of our mission to make sure everyone can benefit from our store of incredible ideas. As such, it has a humanitarian division dedicated to ensuring that people who might not otherwise be able to access our technologies are given the resources and support required to acquire, install, and maintain the technology. This means they can benefit along with everyone else, without being reliant on outside support.

## The Solar Wind Farm

The first project for the USAT Inc. platform is a Solar Wind farm. The pilot project for this innovative new renewable energy technology will soon be built on the Sunshine Coast in Queensland, Australia, and is designed to provide extremely low-cost, efficient, and clean energy.

How it works is very simple: the Solar Wind farm consists of a series of tubes laid up a slope. The sun heats the air in the tubes and the hot air travels rapidly upwards along the tubes. At the top end of each tube is a turbine which is rotated by the rush of hot air and this generates power. To maximise efficiency, running along the tubes are water-filled heat stores which hold heat long after the sun has gone down, so the system can continue to generate power.

For a video explaining the process in detail, follow this link: <https://vimeo.com/253280319>

Building along a slope or hill means very little infrastructure is required. This, combined with the heat stores, makes our Solar Wind tech extremely cost-effective: it is very low-cost to build, maintain, and run. In fact, it is cheaper than any other method of generating power on the market (see table).

Energy cost comparison table.

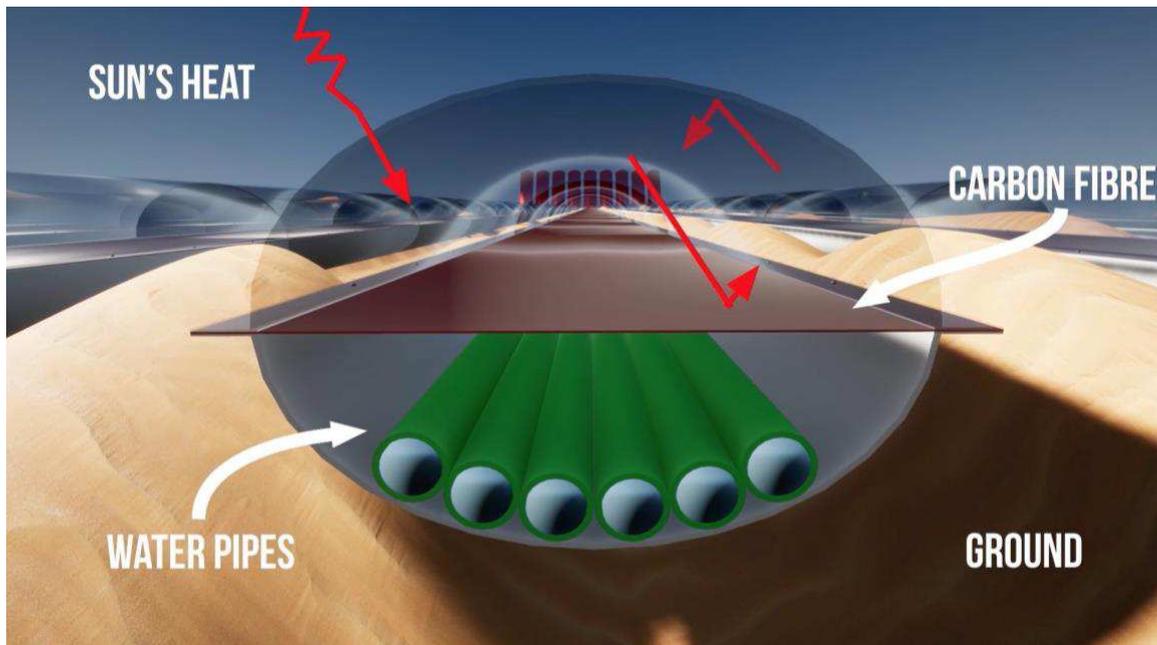
Energy Source	USD per MWh
<b>Solar Wind farm</b>	<b>US \$20 per MWh (approximate cost)</b>
<b>Gas combined cycle plants</b>	US \$74 per MWh
<b>Utility-scale solar photovoltaic plants</b>	US \$79 per MWh
<b>Coal plants</b>	US \$109 per MWh
<b>Nuclear plants</b>	US \$113 per MWh
<b>Geothermal</b>	US \$116 per MWh
<b>Solar-thermal</b>	US \$124 per MWh
<b>Solar photovoltaic rooftop, residential</b>	US \$158 per MWh
<b>Diesel generator</b>	US \$316 per MWh

Adapted from: Energy Innovation: Policy and Technology LLC, Comparing the costs of renewable and conventional energy sources, February 7, 2015. Online publication last retrieved on 1 December 2017. Web address: <http://energyinnovation.org/2015/02/07/levelized-cost-of-energy/>

The United Scientists Association of Technology Inc.'s design is also highly environmentally friendly: it can be built entirely out of recycled materials (doing so reduces its carbon footprint to zero) and the Solar Wind farm even collects water because of the condensation on the tubes. This water can then be used for agriculture and irrigation or for rehabilitating land, such as former mine sites or other otherwise unusable land that the Solar Wind farm can be built on. The modular nature of the design means it can be easily adapted to suit different space and power generation needs: it's as simple as connecting the required number of segments.

Another unique feature of the design is its ability to harness waste heat from other operations, such as cryptocurrency mining. The large amount of hot air produced by the coin mining can be fed directly into the farm and used to help off-set the energy costs of mining.

The goal for the United Scientists Association of Technology Inc.'s Solar Wind farm technology is for it to be used on a wide scale to contribute towards a secure, resilient, and sustainable energy future.



Cross section of Solar Wind farm

## About AIHEM

The Australian Institute of High Energetic Materials is a key partner of The United Scientists Association of Technology Inc. It is a global alliance of great scientific minds and respected institutions who share the goal of supporting and facilitating education, research, and the development of virtuous technologies. AIHEM was established in 2009 and supplies the USAT platform with many of its patents. The USAT platform was the brainchild of the founding AIHEM members, who created it to be the vehicle through which virtuous technologies could be developed and shared with the world.

## Milestones

**2009-** AIHEM organised the 2009 International Conference on Chemical, Mechanical and Materials Engineering and published the conference proceedings.

**2009-** AIHEM signed the first of its numerous Memoranda of Understanding for scientific collaboration with universities and industrial enterprises.

**2010-** Published 2009 Research Bulletin of the Australian Institute of High Energetic Materials.

**2011-** Published 2010 Research Bulletin and Vol. 1 of the 2011 Research Bulletin of the Australian Institute of High Energetic Materials.

**2011-** Launched 12 workshops for intensive professional development of engineers.

**2012-** Published 2011 Research Bulletin of the Australian Institute of High Energetic Materials Vol. 2.

**2012-** Launched the Postgraduate Engineering V-Conference (PEV-C) - the only real-time online scientific conference for postgraduate engineering students in the world.

**2012-** Designed an electronic device for real-time precise measurements of energy consumption by humans.

**2012-** Designed original projectiles with elongated underwater effective range for rifle-bored small arms and ordnance for targeting deep underwater objects.

**2013-** Designed a novel method for the creation of plasma zones of high velocity and pressure to allow soft cracking of the rock beds of oil and coal seam gas wells.

**2014-** Designed and tested an original acoustic warning system for vehicles exceeding the speed limit.

**2014-** Received a Skills & Knowledge Award from the Ministry of Industry of Australia for commercialisation of the novel technique for Digital Particle Streak Velocimetry (DPSV).

**2015-** Designed a system for aerodynamic protection of the bearings of pulleys and idle rollers for the Australian mining industry.

**2017-** The United Scientists Association of Technology Inc. is created.

**2017-** The United Scientists Association of Technology Inc. IP repository is created.

**Cont.-** Mentoring Australian engineering students through AIHEM and The United Scientists Association of Technology Inc.

## Key members

**Dr Benedict de St. Amatus**  
Ph.D. Chemical Engineering  
AIE, AIHEM

Dr Benedict de St. Amatus is the Chair of the Academic Council of the Australian Institute of High Energetic Materials and a founding member of The United Scientists Association of Technology Inc. He is a Reader of the Australian Research Council and an active researcher in Process, Mechanical, and Aerospace Engineering, who authored and co-authored more than 80 scientific manuscripts.

Dr de St. Amatus is a recipient of multiple university and ARC research grants and a former ARC/CSIRO postdoctoral fellow. He has participated in the development of the fuel delivering system of the Olympic Torch and Community Cauldron for the Sydney-2000 Olympic Games, which received an EA Engineering Excellence Award. Dr de St. Amatus is an ex- State Councillor of the Australian National Party in Victoria.



**Mr Peter Banjanin**  
AIHEM

Mr Peter Banjanin is an Honorary Chairman and a founding member of USAT Inc. and the Chair of the Business Development Sub-committee of the Academic Council of the Australian Institute of High Energetic Materials. He is an expert in hydrodynamics and has a broad understanding in many fields including business development. Mr Banjanin has a passion for property development and has accumulated 18 years of field work in the industry from private to commercial development. Mr Banjanin has extensive connections in the Australian financial and agricultural sectors and he is well known for his devoted charity and community works.



**Alexander de St. Amatus;**  
GCBA (USC), MBA (USC)

Mr Alexander de St. Amatus is the director of Joint Venture Enterprise Pty Ltd; a company based in Queensland, Australia. Joint Venture Enterprise Pty Ltd is the company engaged to provide commercial valuation of the projects submitted to the USAT Inc. Mr de St. Amatus holds MBA and GCBA degrees. His fields of expertise are in international business law, corporate entrepreneurship, finance and accounting, strategic management, venture planning, and valuation. He is an active researcher in the field of capital raising and funding options for R&D start-ups in Australia. He co-authored several scientific manuscripts. Mr de St. Amatus is a holder of 5 Australian patents.



**Dr Jason Hung**

**Ph.D. Engineering (NCTU); Master, System Analysis; Bachelor, Environmental Engineering**

**Advisor to the USAT Inc. platform**

Currently the #1 ranked advisor on ICObench, Dr Hung is highly regarded within the crypto community. He is an inventor, serial entrepreneur, and ICO expert and he has more than 20 years' experience in managing RD, IT, sales, consulting services and holds nine technology related patents which are used by over 2000 apps. Dr Hung is the co-founder of Treascovery, Chidopi and TimeBox, and is a member of the advisory board of BitRewards, BlockLancer, ICONIC, AIDA, EZPOS, and Suchapp. He has extensive experience in blockchain technology, digital marketing, mobile business, AI, and ERP related business.

**Dr Sally Eaves**

**Ph.D. Online Media, Thought leadership and Knowledge Sharing; MSc IT & Management; FHEA; PGCert HE; MIET; PRINCE2; ITIL**

**Advisor to the USAT Inc. Platform**

Currently ranked #24 on Rise Global's "100 Most influential Blockchain People", Dr Eaves combines a depth of experience as a Chief Technology Officer, Practising Professor of Blockchain, Founder and Global Strategic Advisor. She specialises in the application of disruptive technologies for both business and societal benefit. She is an award-winning thought leader in innovation, digital transformation and emergent technology, notably blockchain, artificial intelligence, machine learning and AR/VR.

A member of the Forbes Technology Council, Dr Eaves is an accomplished author with regular contributions to leading business, technology, press and academic publications and is preparing a new book entitled 'Edge of Disruption'. She is an international keynote speaker and respected online influencer across multiple channels - consistently rated in the top 10 for blockchain and social media leadership worldwide. Dr Eaves strongly believes in technology being an enabler for social good which is reflected in her recent positioning for the UK IT Woman of the Year Business Role Model Award 2018 alongside active roles as a global STE(A)M ambassador, charity trustee and mentor.

**Artūras Svirskis**

**Bachelor, International Marketing and Sales**

**Advisor to the USAT Inc. Platform**

Mr Svirskis is a serial entrepreneur who has been involved in the crypto industry since 2014. He has worked with the biggest cryptocurrency exchangers and payment service providers to help to make Bitcoin more accessible. Mr Svirskis is well connected within the Fintech world and can draw upon the knowledge of his contacts at EgoPay, Nettel, QIWI, MoneyPolo, Admiral Markets, Huobi, LakeBTC and many more, to help fast-track marketing and business development.



## Development team

ICO development team: CapchainX Ltd.  
Find them at: <https://www.capchainx.com/>

Senior Development Team members: Pactum  
Find them at: <https://pactum.io>

Visit <https://usat.io> to see the rest of our team.

## Media enquiries

Most team members are available for interview or comment. Please direct all media enquiries and requests to [info@usat.io](mailto:info@usat.io)

## Links

The United Scientists Association of Technology Inc. website: <https://usat.io>

The United Scientists Association of Technology Inc. videos: <https://vimeo.com/user79685243>

AIHEM website: <http://www.ausihem.org>

