Blockchain for Maritime Decision-makers Programme

IMO EDITION 14TH & 15TH OCTOBER 2019

Blockchain for Maritime Decision-makers Programme

Edition specially designed for

Introduction

The Nautical Institute in partnership with Navozyme have developed a maritime industry specific educational programme titled "Blockchain for Maritime Decision-makers" (BMD) . The BMD Programme's objective is to raise the awareness of maritime leaders about *Digital Transformation* issues and specifically about the applications of *Blockchain Technology* for the maritime industry.   The BMD Programme's larger goal is to equip the global community of maritime changemakers with knowledge, confidence, skills and mindsets that can act as a catalyst to transform and futureproof the maritime industry.

The Programme described in this document has been specifically designed for the IMO and is an adapted and abridged version of the original BMD Programme. The original BMD Programme runs over two full days and has a workshop style format designed for small groups around twenty persons.

The inaugural edition of the BMD Programme was successfully delivered in Singapore in partnership with the Singapore Management University on the 19th the 20th of September 2019.

Subsequent editions are scheduled in London (22nd & 23rd October) and in Barcelona (19th & 20th November) and are open for registrations via this link.

https://www.nautinst.org/career-development/ni-academy/short-courses/block-chain-for-maritime-decision-makers.html

Blockchain for Maritime Decision-makers – IMO Edition

VENUE: IMO London

DATES: 14th (Monday) & 15th (Tuesday) of October 2019

PARTICIPANTS: Open only to IMO's members (about 150 attendees expected)

SPEAKERS
(Detailed bios are available in t) **:**

David Shrier (DS)	Blockchain guru, Cyber Security Expert, MIT & University of Oxford
Anjaney Borwankar (AB)	Maritime Blockchain practitioner, Educationist, BMD Programme Architect
Ian Myles (IM)	Cyber Security & Digital Identity Expert, Acclaimed Industrial Designer
Leonardo Zangrando (LZ)	Naval Architect , MBA, Innovation and Maritime Start-up Expert

PANELISTS

Capt. Jitesh Jaipuriyar	CEO- Bostomar Shipping & Co-Founder – Navozyme
Leonardo Zangrando	Founder – StartupWharf
Capt. Maneesh Varma	Accreditation & Training Development Manager- The Nautical Institute

Blockchain for Maritime Decision-makers Programme

Edition specially designed for

INTERNATIONAL MARITIME ORGANIZATION

Programme Agenda

Day 1: Monday, 14th October 2019

Programme Start	*0930h*	*Welcome remarks by Ms. Heike Deggim , Director- Maritime Safety Division*
Session 0: AB	**0945-1000h**	**Introduction & Objectives of the Programme**
Session 1: DS	**1000-1030h**	**Keynote by David Shrier**

Basic Blockchain: How It Will Change Everything, and How to Use It

While blockchain has got a great deal of popular press, it remains hard to understand for most executives. In this engaging, plain-speaking talk, we hear from University of Oxford's David Shrier (Programme Director of Oxford Blockchain Strategy). He will explain:

- what blockchain is in less than 2 minutes, and why it's different than bitcoin
- how it can be used by enterprises for efficiency and opportunity
- the potential it presents to the maritime industry, particularly when combined with other technologies

Coffee Break	*1030-1100h*

Session 2 : AB   **1100-1230h**   **De-Mystifying Blockchain: Fundamental concepts**

- Genesis of BC, Brief history
- Decentralised Vs Distributed systems
- How it works: the hash, the block, the chain
- Encryption and Digital Signatures
- Types of Blockchains, Protocols & Layers

Lunch Break	*1230-1400h*

Session 3: AB   **1400-1545h**   **Recap of Learnings**

Blockchain's Implications for the Maritime Industry

Relevant IMO Instruments: E-Certificates, Maritime Single Window, Cyber Security

Current Applications

- o   Seafarers Certifications (Philippines example)
- o   Ship Registration (Singapore example)
- o   Port Clearance

Coffee Break	*1545-1615h*

Session 4: AB   **1615-1715h**   **Panel Discussion "Blockchain and Digital Transformation in Maritime"**

Moderator: Anjaney Borwankar

Panelists:

Capt. Jitesh Jaipuriyar, CEO Bostomar Shipping

Leonardo Zangrando, CEO StartupWharf

Capt. Maneesh Varma, Accreditation & Training Development Manager- The Nautical Institute

Session 5: AB   **1715-1730h**   **Debrief**

Blockchain for Maritime Decision-makers Programme

Edition specially designed for

Programme Agenda

Day 2: Tuesday, 15th October 2019

Session 6: AB	**0930-0950h**	**Recap of the learnings from Day 1** **Day 2's Objectives**
Session 7: IM	**0955-1025h**	**Blockchain Adjacencies: Digital Identity & Cyber Security** More than one technology is often needed to solve a particular problem. In the use-cases for blockchain, for example in the blockchain enabled seafarers' certifications' process, it is important to pay attention to how the connection between the analogue physical world (the seafarer who owns the certificate) is made with the digital virtual world (the digital record of the certificate). Ian Myles (Founder of ID/AI 2017 Conference) shall speak about the latest in Digital Identity and Cyber Security and illustrate via examples how these are important considerations for blockchain solutions.
Coffee Break	*1030-1100h*	
Session 8: LZ	**1100-1115h**	**Regulating (for) Evolution** The pace of change and innovation has been accelerating and challenges the way organisations operate today. A new evolutionary business management approach is emerging where organisations can rapidly evolve and adapt to their changing environments. The implementation of dynamic new technologies like blockchain which evolve at an unprecedented pace requires new ways to regulate and to structure organisations. The responsibility and the challenge for regulators is to create frameworks that not only guide and determine the evolutionary direction of the industry but also encourage and enable adaptation of business models that remain open to technological changes with much shorter timescales. Leonardo Zangrando shall provide ideas along these themes based upon his multi-decade experience working with lean and agile methodologies with both large maritime organisations and startups.

Session 9: AB	**1120-1215h**	**Implementing Blockchain**
		- Evaluating the value of blockchain in your maritime business
		  o The *Navozyme- Maritime Blockchain Evaluation Framework (N-MBEF)*
		- Implementation Strategies
		  o Consortia
		  o Stealthstorming

Session 10: AB	**1215-1225h**	**Summary of Learnings** **The Journey Continues…How to prepare yourself & your organisation**

End of Programme 1230h

Blockchain for Maritime Decision-makers Programme

Edition specially designed for

INTERNATIONAL MARITIME ORGANIZATION

Programme Summary

1

- ✓ *This programme has been designed for adult learners and has several experiential components. Computer-aided demos, simulations, and exercises all form part of the delivery of this programme.*
- ✓ *IT IS STRONGLY SUGGESTED FOR PARTICIPANTS TO BRING ALONG THEIR LAPTOPS AND TO ENABLE INTERNET ACCESS.*

Day 1 begins by highlighting the importance of blockchain and why it is considered a revolutionary technology. Participants are made aware of the fundamental concepts of blockchain (BC) with the aim to simplify and demystify this technology. Examples of current maritime BC use cases are described to highlight BC's direct relevance to the IMO instruments particularly in the areas of E-Certificates, Maritime Single Window and Cyber Security. The panel discussion towards the end aims to bring forth the views of industry leaders about the benefits, risks and challenges brought by BC and digital transformation.

WHY blockchain's important
WHAT is blockchain?
HOW does it work?
IMO INSTRUMENTS
Impact of Blockchain & Digital Transformation
BENEFITS, RISKS & CHALLENGES

- ✓ *Day 2 builds upon Day 1's learnings.*
- ✓ *It is important for participants to have attended Day 1's sessions to fully benefit from Day 2.*

2

Day 2 focuses on the key aspects of the implementation of BC. The importance of adjacent technologies to BC related to digital identity and cyber security is highlighted. A practical framework to evaluate BC related maritime opportunities is illustrated and strategies for BC implementations are discussed. Participants would learn to appreciate that BC is a subset of the larger digital transformation phenomenon that could fundamentally change the business models of maritime organisations and the way they are organised and regulated. Participants are given suggestions to continue the learning journey and prepare themselves and their organisations.

DIGITAL ID & CYBER SECURITY
LEAN ideas for maritime regulation
IMPLEMENTATION Strategies
FRAMEWORK to evaluate blockchain's value
HOW to BE PREPARED

About Navozyme

Navozyme was setup by maritime professionals in 2017 with the mission to enhance lives of maritime stakeholders via innovative technology solutions that increase safety, productivity and reputation of the global maritime industry. Navozyme is currently leading the world's first blockchain applications in maritime certifications particularly related to seafarers' certifications, ship registries and port clearance processes.

Navozyme Pte Ltd is headquartered in Singapore. More information can be found at www.navozyme.com

---

SPEAKERS' BIOS

For LinkedIn Profiles please click the names below

PANELISTS' BIOS

For LinkedIn Profiles please click the names below

Blockchain for Maritime Decision-makers Programme

Edition specially designed for

Anjaney Borwankar
(PROGRAM DIRECTOR)

Seafarer, Maritime Blockchain Practitioner, Entrepreneur, Educator

Anjaney Borwankar (Anjan) is a serial entrepreneur and a seasoned business executive with over two decades of management experience with prestigious global organizations such as McKinsey & Company, A.P.Moller (Maersk) and IESE Business School. He is a thought leader on *Digital Transformation* and *Blockchain* and a regular speaker at leading conferences worldwide.

Anjan co-founded Navozyme, a Singapore headquartered technology company dedicated to enhancing lives in the maritime sector via proprietary blockchain enabled platforms. Navozyme is leading several transformative blockchain pilots internationally.

As Advisor at Heywood & Sons, a European pioneer in Corporate Venture building, Anjan has worked closely on innovation initiatives with Fortune 500 companies to turn technologies and opportunities into 100M+ Euro businesses. Anjan is also the Co-Chairman of the Digital Economy Committee at EuroCham Singapore and an Advisor to the prestigious IESE Business School, the #1 ranked global business school for Executive Education as per the Financial Times.

In 2015 Anjan co-designed along with leadership and innovation guru Professor Paddy Miller, the Digital Mindset program. This program run by IESE is a bestseller programme and still continues to be hosted in New York, Munich and Barcelona.

Anjaney is a marathon runner, a certified permaculture designer and a regular volunteer to guide public meditation sessions. He is married and has two young sons and resides between Singapore and Barcelona.

https://www.linkedin.com/in/anjaneyborwankar/

Co-founder & Chief Strategist (Navozyme)

Co-Chairman: Digital Economy Committee, EuroCham Singapore

Advisory Roles:
IESE Business School
Heywood & Sons

Blockchain Strategy & FinTech Certification - Oxford University (Said Business School)

MBA- IESE Business School

Runner's up Prize for the President of India's gold medal at T.S.Rajendra-Chanakya

Bachelor of Science in Nautical Studies, University of Mumbai

Leonardo Zangrando

Naval Architect, Innovation and Maritime Start-up Expert

Founder and Managing Director
Startup Wharf Ltd., UK

Founder and Managing Director
Pretotype Company Ltd., UK

Founder and Foundation Director
Learning Startup Stichting, NL

MBA -IESE Business School

MSc in Naval Architecture and
Mechanical Engineering, University
of Trieste, Italy

Mr. Leonardo Zangrado is a Naval Architect and an MBA with four generations of family tradition in shipping. After a career in Shipbuilding where he spearheaded several innovative ship design and shipbuilding practices, he transitioned to the business side of Shipping and Logistics where he managed acquisitions and operational re-organisations of port container terminals.

Since 2009 he has contributed to the development of the Lean Startup culture for digital entrepreneurship and digital innovation in large organisations. Mr. Zangrando designed a hands-on training methodology for startups to learn-by-doing the startup development process, and developed blended learning material currently used by major Italian Bank Intesa Sanpaolo in their startup incubator Officine Formative.

He also redesigned and project managed the overall conversion of a logistics facility involving £20m investment, change of technology and processes, with operations running 24/7. Achieved 90% increase in capacity and 50% increase in turnaround time.

Ian J Myles

Designer, Developer, Entrepreneur, Educator

A native of Scotland and having started professional life in Industrial Design & Technology, Ian has lived & worked in London, Singapore, Silicon Valley. With a proven track record in commercially viable innovation across industries, he has much international experience with start-ups and Fortune 500 Companies.

After 20 years in California, the last 6 in Mobile Payments / FinTech & I.o.T. he has more recently been Head of Payments at SingTel, Singapore and incubated in-house mobile payments solutions for JPMorgan CHASE, above a bank branch in Silicon Valley. Ian has also been Funded by Citibank Ventures Palo Alto to build NFC wallets from scratch, designed & built ATM's for Disney, designed, built and shipped kids phone from scratch also for Disney.

His design work has won 4 IDSA awards, & several patents. Ian also ran an advanced concept facility for Motorola in San Francisco, pushing integration across disciplines - antenna's, mechanical, electrical & electronic engineering, Industrial Design, User interface & UX, Content and USABILITY - believing the latter to be the key to everything.

CEO, area 51

Asian Partner - Community for Learning With Bits, CLWB.org

Co-founder, ID/AI 2017 Conference – Identify & Artificial Intelligence

Blockchain for Maritime Decision-makers Programme
Edition specially designed for

David Shrier

**Blockchain Guru
Cyber Security Expert
MIT & University of Oxford**

www.VisionaryFuture.com
NEW Book to be published in November 2019 https://mitpress.mit.edu/books/trusted-data-revised-and-expanded-edition

David Shrier is a globally recognized authority on financial innovation, working with entrepreneurs, corporate innovators, and governments around the world to build a new financial system. He has published multiple books on blockchain, fintech, and cybersecurity.

David created and leads the University of Oxford's online programme Oxford Blockchain Strategy, a revolutionary approach to accelerating new blockchain ideas in a distributed digital environment. He also is Program Director for Oxford Fintech online, Oxford's Leadership & Diversity for Regulators, and Oxford Fintech Lab. Previously, he created MIT's Future Commerce (the first graduate fintech class in North America) and MIT's Big Data & Social Analytics. This portfolio of programs facilitates entrepreneurial action by engaging more than 13,000 innovators in over 120 countries to build the new financial ecosystem. David's current academic appointments include Associate Fellow with the Saïd Business School, University of Oxford and Lecturer at the MIT Media Lab.

His advisory portfolio includes helping the Commonwealth of Nations (the 53 countries formerly comprising the British Empire) on understanding how to shape policy that support blockchain and fintech. He previously has advised the Government of Dubai on blockchain and digital identity; the OECD, on blockchain policy and standards, particularly with respect to distributed digital identity; Ripple, a blockchain cross-border payments company, on regulatory strategy; and the European Commission on commercializing innovation with a focus on digital technology.

More broadly in his corporate advisory practice, David specializes in helping established organizations to build new revenue and new markets, particularly through the understanding and application of disruptive and revolutionary technologies like distributed ledgers. He has developed $8.5 billion of growth opportunities with C-suite executives for Dun & Bradstreet, Wolters Kluwer, Ernst & Young, The Massachusetts Institute of Technology, GE/NBC, The Walt Disney Company, AOL Verizon, and Starwood, as well as private equity and VC funds. He has led a number of private equity and venture capital-backed companies as CEO, CFO or COO, in either interim or full-time capacities. David presently is involved with multiple AI-enabled business.

David is a member of the FinTech Industry Committee for FINRA, the U.S. securities industry's self-regulatory body; and on the Fintech Trade & Investment Steering Board for the UK Government's Department of International Trade. He also informally engages with the European Parliament, European Commission, OECD, Bank of England, FCA, SEC, US Treasury, and FDIC on innovation, cybersecurity, digital identity, blockchain, and AI. David is on the advisory board of WorldQuant University, a program offering a totally-free, accredited, online Master's degree in financial engineering.

David has been published in Forbes, Newsweek and CNBC.com, and also co-edits, together with Professor Pentland, the Connection Science imprint of MIT Press. He was named 2018 Global Fintech Person of the Year by Fintech Galaxy, and listed on One World Identity's Top 100 People for both 2017 and 2019.

David Shrier was granted an Sc.B. from Brown University in Biology and Theatre, and worked professionally as a dramaturg and director after college.

Blockchain for Maritime Decision-makers Programme

Edition specially designed for

PANELISTS

Captain Jitesh Jaipuriyar

Captain Jitesh is a Master mariner who has versatile experiences for more than two decades spanning more than 50 countries in 5 continents in shipping industry. His work experiences vary from manufacturing tires to managing complex shipping terrain, commanding 110,000 tons plus ships and turning-around organizations while challenging the status-quo in top MNCs to facilitating change.

He is full time MBA from China Europe International Business School (CEIBS), Shanghai and Black belt in Six Sigma. He founded many companies till date and currently heading a dry bulk shipping company which caters to fortune 500 companies which are large steel mills, power plants and commodity traders. He is also a co-founder and CEO of Navozyme. He is the recipient of several awards. Lately he was given honorary doctorate by Royal Institute of Maritime Management, Singapore. He is also a guest lecturer in NUS Singapore where he teaches leadership.

Captain Maneesh Varma

With 25 years experience at sea, Captain Maneesh Varma AFNI started his carrier as cadet and left sea as Captain working for Maersk. After coming ashore he gained qualifications in Shipping, Trade and Finance (MSc from Cass Business School, London), PGCE (Southampton University) and PG Diploma in Marine Law University of Plymouth.

Captain Varma has held numerous roles in the maritime training sector, working as senior lecturer in simulation at Warsash Maritime Academy, Lowestoft College and Liverpool John Moores University, where he assessed navigational risks for new port developments.

He also worked in Commercial Operations for Holbud Ship Management, London and SPL Shipping, New Delhi. While working in commercial shipping he had his experience in

Currently working as Training and Accreditation Development Manager for The Nautical Institute (NI), he works to enhance and manage The NI's CPD services and is actively involved in development and organisation of maritime trainings. He is passionate about mapping preparing the maritime community for the future skill needed due to advancement in technology. He is also honorary joint secretary and treasurer of Indian Maritime Association, UK and executive committee member of The NI London branch.