

Emerging CTO Programme

Drive strategic impact through visionary technology leadership



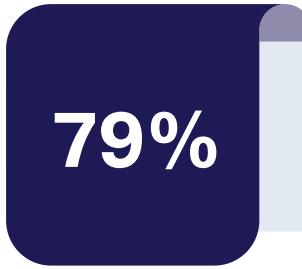
Transform your technology expertise into strategic leadership

Technology has transformed how we do business, becoming an integral part of enterprise operations. With this change, a new generation of chief technology officers (CTOs) has emerged. They are not just technology experts – they are strategic visionaries who drive change. From leading teams to fostering innovation and driving digital transformation, expectations for future CTOs are high. As technology and business continue to converge, aspiring CTOs must ensure that they possess a diverse skill set to bridge the divide between technology and strategic leadership and create scalable solutions.

The six-month **Emerging CTO Programme** from **Imperial College Business School Executive Education** is designed by world-renowned faculty with expertise in business, strategy and technology. The programme will equip you with the strategic foresight to create a technology road map for your organisation and drive impact at the executive level.

Through immersive faculty-led sessions, real-world examples and executive toolkit activities, you will acquire the necessary skills to align technology initiatives with larger business objectives. Innovative online content, peer-centered learning and virtual networking opportunities will help you develop an extensive skill set encompassing strategic leadership and technology and a rich set of resources you can draw on as you create your own career pathway.

Upon completion of the programme, you will be ready to navigate changes in the global technology landscape, drive impactful technology transformations and stand out among the next generation of CTOs.



79%

of CTOs plan to use technology to help change their organisation's business model.

Source: PwC



88%

of CTOs indicate that innovating how their function operates is a priority.

Source: PwC

Learning outcomes

By the end of the programme, you will be able to:

- Integrate emerging technologies, artificial intelligence and automation to drive digital transformation and foster a culture of innovation
- Evaluate the ROI of technology initiatives to improve financial performance and business value
- Mitigate technology risks, develop robust cybersecurity strategies and incorporate crisis management frameworks to ensure business continuity
- Refine data strategies to assess and improve your organisation's data management and utilisation and align them with technological initiatives to drive digital expansion
- Optimise infrastructure management and cloud computing strategies to enhance operational efficiency and scalability
- Formulate a strategic technology vision that aligns with business objectives to drive growth and gain competitive advantage
- Implement customer-centric strategies to drive continuous improvement and make informed decisions
- Foster ethical leadership and an inclusive organisational culture while leveraging diverse perspectives to drive innovative solutions
- Analyse organisational structures and politics, discerning their impact on decision-making processes
- Integrate environmental, social and governance (ESG) principles with the decision-making process to align organisational goals with social objectives

Emerging CTO Programme with Imperial Executive Education

The Emerging CTO Programme is designed to equip you with the essential knowledge, skills and tools to navigate the complexities of technology and business.

Distinguished industry experts and renowned faculty combine thought leadership and insight with new technology to develop an innovative curriculum that is based on the latest research and cutting-edge insights, enhancing your readiness for a successful transition to the CTO role.



"The CTO's responsibilities are expanding in response to the rapid evolution of technology, creating a need for leaders who can seamlessly combine their technical expertise with a diverse range of business skills to achieve desired outcomes. The Emerging CTO Programme is designed for experienced technology professionals seeking to transition to the CTO role. Participants will gain comprehensive executive leadership skills as well as an in-depth understanding of contemporary technology strategies and CTO transformation initiatives, empowering them to bridge the gap between technology and business."

- Khalil Dimachkie
Programme Director,
Emerging CTO Programme,
Imperial College Business School

Programme highlights



Cutting-edge content

Immerse yourself in an innovative curriculum that equips you with the diverse range of skills needed to navigate the technical and strategic responsibilities of today's CTOs and become a visionary technology leader.



World-renowned faculty and industry experts

Acquire insights into modern-day CTO responsibilities from esteemed Imperial Executive Education faculty and distinguished industry experts.



Peer learning

Engage with like-minded peers from diverse fields during discussion forums to exchange ideas and enrich your learning experience.



Interactive sessions

Leverage the synergies of real-time learning in live online sessions with faculty, guest speakers and a cohort success coach.



Executive Strategy Activities

Complete the two executive strategy activities, including the executive toolkit activity and the executive workbook, to strengthen your programme learning.



Guest lecturers

Gain fresh perspectives from top tech leaders who share their firsthand experiences to elevate your understanding of programme concepts.



Self-study and reflection exercises

Reinforce core concepts and reflect on learning outcomes through module-specific activities.



Case studies and industry examples

Understand the ever-changing CTO role and technology landscape through real-world examples.



Success coach

Craft your learning journey in line with your career goals with a success coach assigned to your cohort.

Programme curriculum

Modules | Online | 6 months

Designed by world-renowned Imperial faculty with expertise in technology and strategy, this six-month learning journey will prepare you to confidently navigate the complexities of C-suite leadership and help you develop the skills needed to be a successful CTO in today's dynamic business landscape.

Phase 1: Executive Leadership Development | 12 weeks

Gain the executive leadership skills that empower you to drive impactful change, achieve strategic success and build collaborative relationships. Understand the role of a CTO in leading digital transformation and overseeing sustainable innovation.

Module 1: Organisational Structures: From Hierarchies to Networks

Module 2: Navigating and Influencing Complex Politics

Module 3: Building Alliances and Collaborations at the Executive Level

Module 4: Understanding Enablers and Derailers to Career Progression in the C-Suite

Module 5: Building Trust and Relationship Management

Module 6: Adept Communication: The Art of Storytelling

Module 7: Fostering a Culture of Ethics

Module 8: Inspiring Cohesive, Effective Teams

Module 9: Future Forces Transforming Demands on the C-Suite

Module 10: The Role of the C-Suite in Driving Digital Transformation

Module 11: Environmental, Social and Governance (ESG): Balancing Profitability and Responsibility

Module 12: Understanding and Appreciating Diversity in the Workplace

Phase 2: Technology Strategy | 6 weeks

Acquire the strategic insights needed to excel as a CTO in today's rapidly evolving digital environment, develop essential technology leadership skills and explore breakthrough technologies, including AI and automation.

Module 13: Business Acumen for Technology Leaders

Module 14: Planning Organisational Technology Strategy

Module 15: Infrastructure Management and Cloud Computing

Module 16: Emerging Technology

Module 17: Artificial Intelligence and Automation

Module 18: Strategic Cybersecurity

Phase 3: CTO Transformation Imperatives | 6 weeks

Develop an in-depth understanding of transformation initiatives that are critical for continuity and success in today's technology landscape. Then, discover the art of balancing innovation, ROI and customer-centricity while adjusting strategy to ever-changing market conditions.

Module 19: Crisis Management and Continuity

Module 20: ROI on Technology Initiatives

Module 21: Customer-Centric Approach

Module 22: Fostering an Innovation Culture

Module 23: Strategic Partnership

Module 24: Leading Through Flux

Note: Module topics are subject to change.

Immersive learning

Experience an immersive learning journey that extends beyond the classroom through online sessions, live online sessions, discussion forums and toolkit activities, gaining hands-on experience in relevant skills. You will:

- Engage with global peers, guest speakers, esteemed faculty and a cohort success coach through live online sessions to solidify your understanding of the evolving CTO role
- Collaborate with your cohort members during discussion forums to share your programme learnings and exchange ideas, enhancing your understanding through teamwork
- Apply classroom learnings to complete weekly assignments, which culminate in two executive strategy activities, transforming your programme knowledge into actionable skills



Executive Strategy Activities

Throughout the Emerging CTO Programme, you will apply core concepts to complete two executive strategy activities: the executive toolkit activity and the executive workbook. These activities include weekly assignments that offer opportunities to synthesise programme insights. The executive strategy activities require you to explore a broad range of leadership capabilities, from hard skills such as artificial intelligence to soft skills such as creativity.

Executive Toolkit Activity

The activity includes a variety of interactive, research-based activities. These required activities, which are built into each module, will equip aspiring C-level leaders with the necessary skills to lead at the executive level and offer regular opportunities to translate theory into practice.

Executive Workbook

The workbook will require you to leverage CTO-specific strategies and skills to build a technology road map for your organisation. Each week, you will complete an assignment, crafting a plan for how your organisation will navigate the tech landscape and use technology to achieve its business objectives.



Case studies and industry examples

Understand how to measure success and drive continuous improvements in tech strategy through real-world examples, including Kodak, Netflix, Apple, Amazon and Waze.



Amazon Web Services: Explore how this cloud computing giant's carbon reporting tool falls short of helping users optimise emissions reductions.



Capital One: Discover how one of the largest US banks used Amazon Web Services to improve agility and accelerate innovation.



Starbucks: Learn how this coffee retailer used a mobile ordering system to enhance customer experience and streamline order management.



Walmart: Understand how this multinational retail corporation used blockchain technology to bring unprecedented transparency to the food supply chain.



Waze: Investigate how this navigation technology company leveraged crowdsourced data to become one of the most widely used mapping services in the world.



Kodak: Explore how this once undisputed leader in the photography industry failed to adapt to digital photography and embrace innovation, resulting in bankruptcy.



Netflix: Understand how this online streaming giant embraced digital transformation and adapted to changing customer preferences to establish itself as a market leader.



Programme faculty



Khalil Dimachkie

Programme Director

Fractional CTO and Strategic Adviser

Khalil Dimachkie has an extensive technology leadership background, including ten years as a CTO. He leverages his leadership experience together with his expertise in software engineering and technology to advise companies and investment funds on technical strategy, business strategy and market fit. He has helped transform and scale startups, taking them through multiple rounds of funding all the way to a successful exit. Throughout his career, he has amassed significant knowledge of a broad range of programming languages and technologies, working as a Developer and later an Architect at startups and large enterprises alike, including TfL, VISA, BP and Maserati.



Adam Kingl

Lecturer at Imperial College Business School

Adam Kingl is highly regarded for his expertise in the future of business. His primary research focuses on the work and leadership paradigms of the youngest generations in the workplace. Kingl is a highly sought-after speaker at prestigious events, including the World Expo in Milan, Global Leadership Summit and HR Directors Business Summit. His work has been featured in the *Financial Times*, *Sunday Times*, *The Guardian* and other esteemed publications. He is also the author of *Next Generation Leadership* and *Sparking Success*.



Alfonso Fernandez, PhD

CTO and Technology Adviser



Danielle Lyssimachou, PhD

Principal Lecturer (Teaching);
Admissions Tutor for the BSc
Economics, Finance and Data
Science degree, Imperial
College Business School



Ali Haidar

Cyber Security Expert



Catherine Mulligan,

PhD, MPhil

Advanced Research Fellow at
the Institute for Security
Science and Technology

Note: Faculty list is subject to change.

Who is this programme for?

The **Emerging CTO Programme** is designed to help experienced technology leaders expand their strategic leadership capabilities and deepen their technology expertise, empowering them to become next-generation CTOs who can navigate the complexities of C-suite leadership and drive significant impact to meet business objectives.

This programme is particularly relevant for, but not limited to, the following roles:

Senior technical leaders looking to enhance their business, leadership and strategic skills to make an organisation-wide impact, set the technological direction for their businesses and advance to a C-level role

IT operations and security leaders seeking to use technology and strategy to play a more significant role in their organisations, elevate IT's contribution to business value, shape technology policy and overcome business challenges

Digital transformation managers aiming to develop technical expertise and C-level leadership skills to lead organisation-wide digital strategies, drive organisational change and advance to the C-suite

Business and technology leaders looking to deepen their technical knowledge and develop executive leadership skills to shape the future of business with technology, make data-driven decisions, build new business models and lead at the executive level



The Imperial advantage

#1

QS World University
Rankings – 2025
(Europe)

#1

Daily Mail
University Guide –
2024 (UK)

#2

The Complete
University Guide –
2025 (London)

#2

The Guardian
University Guide –
2024 (London)

#3

Times Higher
Education World
University Rankings –
2024 (Europe)

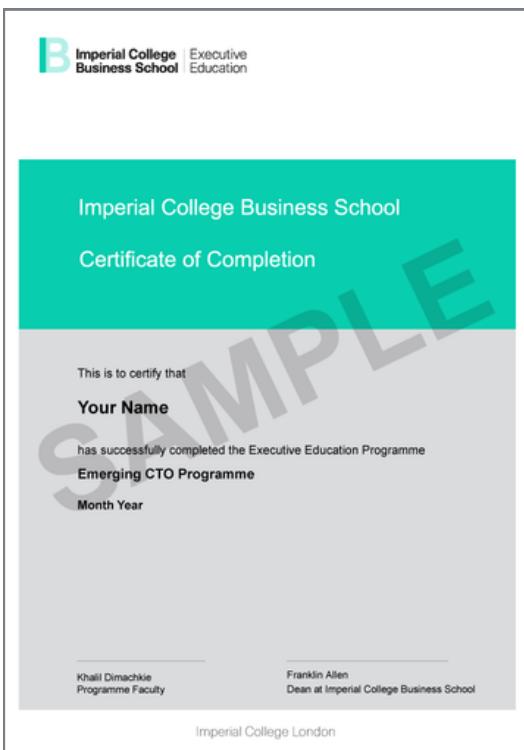
#4

US News Best
Global Universities
2022-2023 (Europe)





Upon completion of the programme, participants will be awarded a verified digital certificate of completion by Imperial College Business School Executive Education.



Imperial College Business School Executive Education is collaborating with online education provider Emeritus to offer online programmes. This allows us to broaden access in a collaborative and innovative format that stays true to our content, distinctive methods of learning and outstanding quality.

Programme details



6 months, online



4–6 hours per week



£7,000

Flexible payment options are available.



Schedule a call with a programme adviser to learn how this programme can help you:

[**SCHEDULE A CALL**](#)

Apply for the programme here:

[**APPLY NOW**](#)

Refer your colleagues and receive a benefit:

[**REFER NOW**](#)

Prospective participants with questions about the programme are encouraged to contact Emeritus for further information.

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