Professional Programme
in Business & Enterprise Architecture

Many Enterprise Architecture frameworks, such as TOGAF®, include Business Architecture as a subset. Acknowledging the variation of scope across different organisations, we take the widest, business-driven view. Hence our title of Business & Enterprise Architecture encompasses business and operating models, capabilities, organisational design and leadership styles as well as process, information and technology architectures.

Our content reflects this goal by focusing on the professional, business and management elements rather than detailed technical design.

This programme will help you to gain real insights into how architectural expertise guides the transformation of an organisation.

Leverage Enterprise Architecture to build in business agility and operational excellence

euroCIO
The European CIO Association

TiasNimbas
Business School
TILBURG UNIVERSITY
In association with:
Eindhoven University of Technology

CENTRALE
PARIS

HENLEY
UNIVERSITY OF READING

TUM
Technische Universität München

Why a professional programme in Business & EA?

Companies, particularly those with international operations, are facing major challenges.

Their need to deal with complexity increases risks and costs, at a time when most are under pressure to reduce these. At the same time they need to be agile in reacting to market changes and delivering quickly. Responding to these challenges requires sharing of best practice and the right balance of synergy to avoid duplication of effort, while preserving local autonomy.

The Professional Programme in Business & Enterprise Architecture evaluates these challenges and responses from the viewpoint of key stakeholders in order to increase the capability of Enterprise Architects.

Most companies recognize the key role of Enterprises Architects in developing a winning enterprise model through a good understanding of the business strategy and their ability to design agile business and IT operations that achieve lasting superior performance.

The role of the enterprise architect requires a **wide knowledge of the business** and of the opportunities that arise from an **innovative use of information technology**.

The objective of the programme is to help enterprise architects acquire and develop their knowledge of enterprise architecture as well as enhance the required behavioural skills.

What is the objective?

Define Business and IT Strategy

Implement Business & Enterprise Architecture

Design Business & Enterprise Architecture

The programme will aim at:

· **Acquiring a clear understanding of business strategy** and the required business design to execute it successfully

· **Understanding and mastering best practices** in Enterprise Architecture

· **Developing an up to date knowledge of other key disciplines** in Information Management (such as Demand Management, Global Sourcing and Governance) and what they imply for an Enterprise Architect
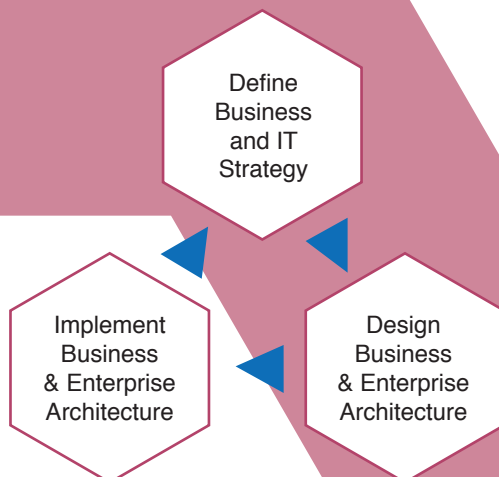
Who should attend?

The programme is intended for professionals in charge of Enterprise Architecture or wishing to evolve towards this position.

Participants will come mainly from "demand" organizations of many different industries.

Our goal is to have the participants represent a **rich diversity of businesses and countries**, thus bringing a wealth of experience to the programme.

Participants will typically have a good first degree or an equivalent professional qualification and a minimum of 3 years experience; however applications are welcomed from individuals with substantial knowledge, experience and skills in a relevant field who do not meet these requirements.

A unique programme on EA in Europe

The Professional Programme in Business & Enterprise Architecture is the result of a highly interactive and demand-driven design.

It has been **developed by leading business schools under the sponsorship of EuroCIO with the involvement of enterprise architects working for top European companies**. It is aligned with EuroCIO's e-competence matrix and is the first professional training launched by EuroCIO in its Executive Education Programme, in line with CIOs priority on Enterprise Architecture. It is a programme primarily designed for Enterprise Architects in the "demand" organizations of large European companies.

The programme involves business schools from different locations in Europe delivering training both on the techniques and management of enterprise architecture. It combines the **best practices** formalized by the Center of Excellence in Enterprise Architecture in Ecole Centrale Paris, with innovative content delivered by Henley Business School and TiasNimbas Business School (Tilburg University), who have vast experience in training professionals and executives in Business Management and Enterprise Information Management.

The training will also include sessions on **behavioural skills** (such as Communication, Problem Solving, Negotiation, Working in Teams) set in an Enterprise Architecture context to enhance performance in the cross functional role of the enterprise architect.

Benefits

· **A truly pan European Learning Experience**, taking place in several countries, and an opportunity to exchange with the best Enterprise Architecture professionals and thought leaders from all over Europe and across industries.

· **You will be guided to the frontiers of knowledge** and skills in Business & Enterprise Architecture

· **You will be supported to increase your business** impact on your organisation

"*The role of the enterprise architect is key in developing a winning enterprise model through a thorough understanding of the business strategy and their ability to design agile business and IT operations that achieve lasting superior performance. It requires a wide knowledge of the business and of the opportunities that arise from an innovative use of information technology. Surveys of the CIO community have shown that the enterprise architect is the single most scarce profile in corporate information management. We need professionalism in such important roles and hence the European CIO Association is establishing the Professional Program in Business & Enterprise Architecture.*"

Michael Gorriz
CIO Daimler AG
President European CIO Association

"*The EA discipline is the key to master today´s complexity in IT and - more important - business. Most large companies struggle with the conflict of historically grown complexity in fast changing worlds today. Good EA practice is the key to win in this competition. And the BEA program adresses the core point: Business and IT viewed and managed in common.*"

Dr. Karsten Schweichhart
Member of the Program Design Board.
VP Enterprise Architecture, Deutsche Telekom

"*What we aim for with this course is to bring the latest architectural knowledge at the Business and IT side together under one cover. It is thus not a technical course like existing architecture courses. The innovative CIO needs top architects understanding the Business and IT worlds, the famous dual thinkers, to be able to develop not only new systems for the business but sometimes radically renewing the business processes as such thanks to new technology. While the CIO is becoming more and more a business Chief, leading in applying new technology or changing existing structures, his staff should follow in that same direction. This course aims at that new architecture position, thus a challenge for those who want to make the difference for their company*".

Peter Hagedoorn
Former CIO Océ, former chairman CIO-Platform Netherlands, CIO-Award winner Netherlands
Secretary-general European CIO Association

Programme Structure

The 18 month programme comprises three stages each of three modules. The stages progressively address the Strategy, Solutions and Implementation of Business & Enterprise Architecture. Together, the 9 modules span all of the 7 disciplines of EuroCIO'scompetence matrix covering the key elements of Corporate Information Management. Hence programme members will receive a broad education in Business IT Management as well as specific professional expertise in Business & Enterprise Architecture.

STAGE 1

Strategy & Enterprise Architecture

Strategy & Innovation

Scope of Enterprise Architecture

Governance & Compliance

STAGE 2

Enterprise Architecture Solutions

Demand Management

Enterprise Architecture Design

Global Sourcing

STAGE 3

Implementing Enterprise Architecture

Programme Management

Enterprise Architecture Implementation

Support & Execution

Learning process

We offer you an integrated and most use focused learning experience with a rich blend of ingredients such as inspirational lectures, e-learning facilities, (real-life) cases, guest speakers, assignments, opportunities for interaction and reflection and peer-to-peer presentations.

Programme content

Scope of Enterprise Architecture

This module introduces the business **value of Enterprise Architecture**. It presents the key role of the Enterprise Architect in this context and delivers a general overview of this discipline, including the **basic concepts of systems thinking and a compared analysis of the major Enterprise Architecture frameworks**. Enterprise Architecture starts with Business Architecture and this requires business and IT structures that are consistent with the respective strategies. The course will especially **develop organizational structures**, based on the major concepts of organizational design.

Governance & Compliance

IT governance is defined as specifying the decision rights and accountability framework to encourage desirable behaviour in using IT. IT governance determines who should systematically make and contribute to IT decisions. Governance deals with business and IT processes, structures and relational mechanisms that are needed to **assure effective decision-making**. A company that takes on an Enterprise Architecture approach, also should adapt its governance. Deciding, monitoring and maintaining the Enterprise Architecture requires specific governance structures and mechanisms, like the appointment of enterprise architects and installing an architecture committee. IT governance also covers the formal arrangements that need to be in place to comply with relevant legal and regulatory requirements. Within this context, this module will also focus on questions of **internal control related to information systems**, and practical models for **control of IT activities**, that impact the Enterprise Architecture.

Strategy & Innovation

This module reviews best practice thinking in how to align and integrate an IT strategy with a business strategy. We introduce a range of tools to **analyse the strategic position and responses of an organisation** considering both external market and internal capability perspectives. The IT strategy can be generated from a selection of processes and sources; we consider which of these are most relevant depending on the position of the organisation.

A clear link is made between the **business strategy and the target business design**. Similarly we consider the importance of enterprise architecture to both the business design and the IT strategy. Organisations need to exploit innovations both in the business design and emerging technologies; we consider both process and cultural enablers for these innovations. Finally we assess how enterprise architecture is viewed in relation to innovation.

Demand Management

This module makes the link between **the strategy and demand management.** Firstly we consider how a portfolio of initiatives is derived and the implications in relation to the enterprise architecture roadmap. Next we review the different levels of requirements and the challenges to manage the increasing detail of these requirements without losing sight of the big picture. This has implications for the expansion of enterprise architectures into solution architectures.

Financial management is important both for effective portfolio management and in assessing the costs and benefits of requirements. Core accounting principles are considered in relation to the IT portfolio of programs and services. We set financial management in the context of a balanced scorecard.

Enterprise Architecture Design

This module focuses on the design of Enterprise Architectures: **From the analysis and modelling of a baseline situation to the design of a target architecture for the enterprise**. Various techniques will be developed: Enterprise Architecture requirements management, Business and IT modelling. Links between Business Architecture, Application Architecture and IT architecture will be emphasized. Other key elements of the module include: Interoperability and integration between various parts of the business and its partners, modular design and SOA, standardization, and how a suitable enterprise architecture can be maintained over time.

Global Sourcing

Traditionally, companies would execute all necessary activities for the production and delivery of their products and services, unless some would for specific reasons be procured from external suppliers. Nowadays, companies tend to think differently: there is no reason to do something oneself unless one is really uniquely good at it. They ask themselves which of their competences are unique and of core importance, which of their resources and functional capabilities really add value, and which might more efficiently be bought externally. Consequently outsourcing and insourcing are causing fundamental changes in the way companies are configured.

Companies' success in today's markets will depend on their ability to set up **cross-industry partner networks** to provide high-quality, cost-efficient products reflecting the customers' needs. This applies to any business process in general and to IT services in particular. This module focuses on the question whether a business should take care of its services, or should buy them from one or more service providers. In case of outsourcing to one or more service providers, special governance arrangements have to be put in place. Consequences for the enterprise architecture have to be taken into account; **having a good architecture in place will contribute to a successful sourcing policy.**

Programme Management

This module deals with the management of IT-enabled business change as it moves from an initiative to a programme. This module identifies **when a programme management methodology is needed to supplement a project management approach**. It explores how project management is combined with solution development with different lifecycles. The tensions between delivering the enterprise architecture and delivering the business change are considered.

The module also reviews the **people aspects of business change** and the importance of managing expectations through the transition stages. Finally, organisational progression in project and programme management is assessed through a maturity model.

Enterprise Architecture Implementation

This module will focus on the day-to-day activities of the enterprise architect. Enterprise Architecture key success factors include: developing the right Enterprise Architecture capability (adequate Enterprise Architecture skill set including **interpersonal skills**, clearly defined **roles and responsibilities**), adapting the organization and the governance processes and bodies (impact of enterprise architecture on project portfolio management, relationships between enterprise architects and the projects, management of a network of architects in the company), actively developing and supporting an enterprise architecture Foundation (not only architecture rules but also reusable patterns and components to reduce complexity and foster synergy). The module introduces the process to set up an Enterprise Architecture, the various maturity stages a company will go through, how to progressively transform legacy systems into a flexible enterprise architecture and how enterprise architecture can also impact the project management approach to improve time to market of projects. The module will finally present an overview of the **major tools used in the enterprise architecture practice.**

Support & Execution

Systems being implemented become part of the portfolio of existing systems and IT infrastructure on which the organization relies for its day-to-day operations. In the daily operational activities, the delivery of IT services must be organized and managed to ensure quality, reliability, security, responsiveness, flexibility and compliance. This module includes **the design of internal service provisioning, service level agreements** (SLA), **the management of the relationship between internal and external service providers, security and risk management.** Having an Enterprise Architecture in place will impact the efficiency of support and execution; the relationship between architectural choices (including having no Enterprise Architecture) and the 'economics' of support and execution will be discussed.

Professor Sharm Manwani
Henley Programme Director

Dr Sharm Manwani is Executive Professor of IT Leadership at Henley Business School. Previously he held European CIO roles at Diageo and Electrolux while obtaining his MBA and Doctorate at Henley. During this period he led a number of international business change programmes driving mergers, restructuring, business process redesign and key account management. In each case, these were enabled by transformation of the enterprise architecture.

Prof Manwani created and leads the Masters in Enterprise Information Management which has delivered significant organisational benefits for Deutsche Telekom and is recognised as best practice. He communicates extensively on IT leadership through conferences, media, webinars and his blog. His research interests span strategy, enterprise architecture, business change, project and service management in international environments.

Professor Piet Ribbers
TiasNimbas Business School / Tilburg University

Piet Ribbers holds the chair of Information Management at Tilburg University, The Netherlands, where he also is the Head of Department of Information Systems and Management. From 1991 till 1994 he held a position as affiliated Professor of Information Management at Washington University in St. Louis, Missouri (USA). His interests span management of information technology (in particular questions related to alignment and information economics), inter-organisational systems (in particular electronic commerce), and the strategic and organisational consequences of the use of Information Technology. He is active as researcher, lecturer and consultant. He supervised more than 20 PhD theses and has contributed articles in this field to professional national and international journals and has (co-) authored several books. He is active at international conferences in Information Systems (ECIS, HICSS, ICIS), and is a member of the editorial board of "Information & Management – The international Journal of Information Systems applications". He has also participated in research programs of the European Commission. As a consultant he has worked with companies like Brunel, Nolan Norton, and ING-groups especially in outsourcing, scenario development and information economics.

Pierre-Frederic Rouberties
Ecole Centrale Paris, Center of Excellence in Enterprise Architecture

Deputy Director of the Center of Excellence in Enterprise Architecture (CEISAR) at Ecole Centrale Paris, Pierre-Frédéric teaches enterprise architecture, and information systems design and management in academic and executive training

15 year experience in implementing and managing information systems for large companies in France and Europe, he has been Chief Information Officer for the French subsidiary of AstraZeneca between 2000 and 2007

He has an engineering degree from Ecole Centrale Paris and an Executive MBA of Essec & Mannheim Business School

Professor Helmut Krcmar
Technische Universität München (TUM)

Helmut Krcmar holds the Chair for Information Systems, Faculty of Informatics, Technische Universität München (TUM), Germany and serves as Dean of the Faculty of Informatics. He is also a member of the faculty of the TUM Business School.

He received a Ph.D. in business administration (University of Saarbrücken) and has worked as Post Doctoral Fellow at the IBM Los Angeles Scientific Center and as Assistant Professor of Information Systems (Leonard Stern Graduate School of Business, New York University and Baruch College, City University of New York). 1987 to 2002 he held the Chair for Information Systems, Hohenheim University, Stuttgart, Germany, where he served as Dean of the Faculty of Business, Economics and Social Sciences from 2000 to 2002.

His research interests include Information and Knowledge Management, IT-enabled Value webs, Service Management, Computer Supported Cooperative Work and Information Systems in Health Care and eGovernment.

The European CIO association is a non profit organisation headquartered in Brussels acting as a professional platform for larger corporations and national CIO organizations. The association's purpose consists of sharing experiences and developing visions at European level for the better and best use of IT within member's entities. The Association provides its members a coordinated platform of services for helping them to professionalize the function of Chief Information Officer.

The European CIO Association

The Association's purpose further consists of acting as the representative of the European IT-demand and CIO community toward outside world (Authorities, IT industry, academics, standardisation committees…).

The Professional Programme in Business & Enterprise Architecture is part of a broader framework of Executive Education developed by EuroCIO that aims at the professionalization of the Corporate IT organization. Together with leading business schools, EuroCIO is developing a comprehensive European offering for the education of professional Corporate Information Management practitioners, targeted at a wide range of people (from business and IT) to fill in existing and future vacancies at higher managerial and executive levels.

The EuroCIO Executive Education offering consists of 3 layers:

Layer 1: EuroCIO Executive MBA programme on Corporate Information Management (Business & IT)

Layer 2: Multiple EuroCIO Professional Programmes in Corporate Information Management disciplines

Layer 3: Modular EuroCIO Courses on Corporate Information Management
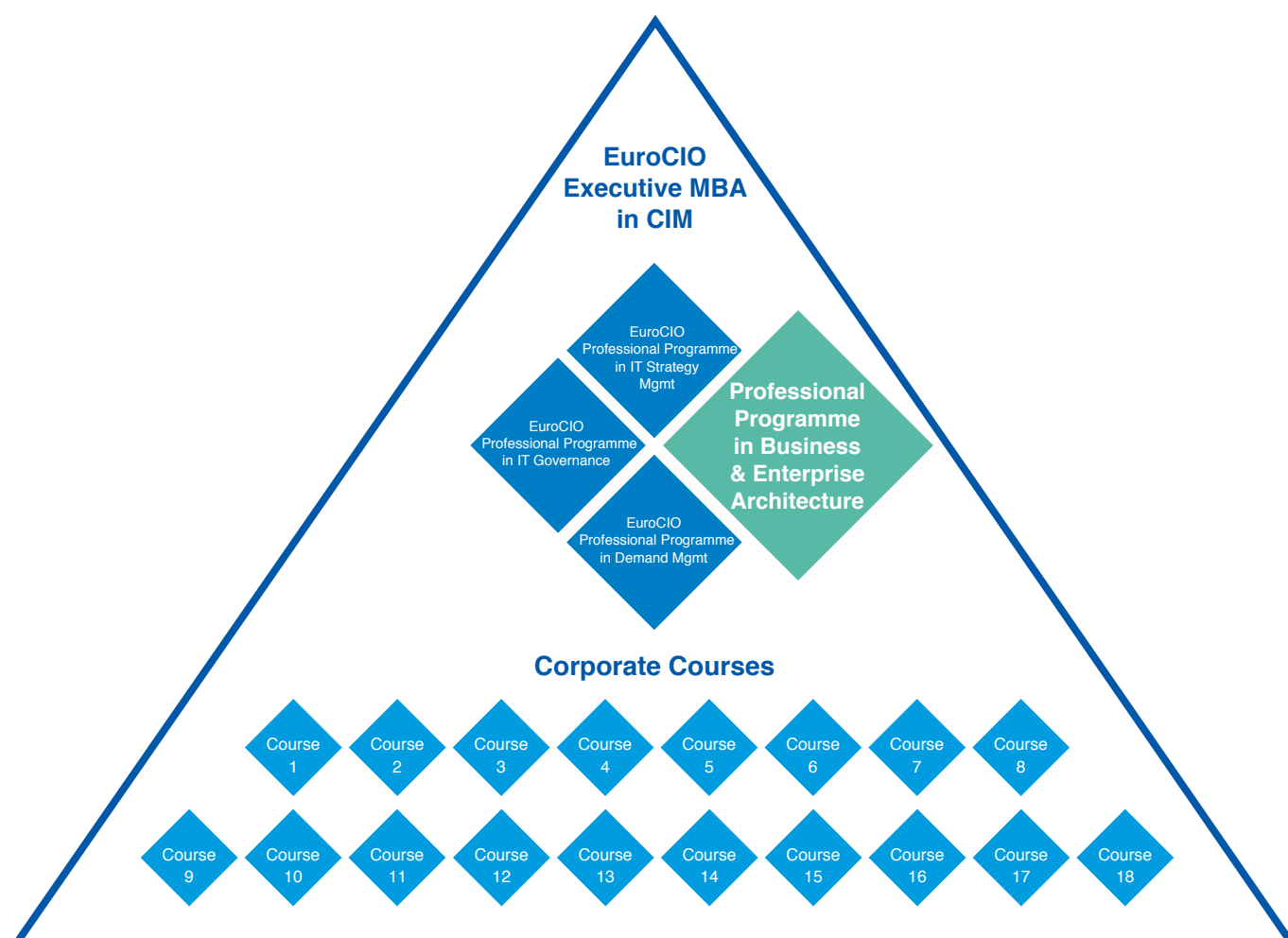
These layers are logically linked to each other, using the same terminology, definitions, business or IT approach. All levels are compliant with the e-Competence Framework and related projects of the European Commission.

Henley Business School

Founded in 1945, Henley was the first business school in the UK and one of the few business schools worldwide to hold triple-accredited status from the major UK, European and US awarding bodies (AMBA, EQUIS, AACSB).

Henley is the world's third largest provider of MBA education and its programme portfolio includes a range of undergraduate & postgraduate degrees, a world-class DBA & a wide range of executive education programmes.

Henley's global presence and reputation as a leading international business school are reflected throughout all aspects of its work; from the highly diverse faculty, in both background and expertise, to programmes which draw participants from more than 130 countries.

Henley draws on an international network of associates and collaborative partners, multi-national corporate clients who work with us on bespoke programmes and an alumni organisation featuring 30,000 members from every corner of the globe.

As a result of its heritage and experience, Henley has an impressive track record of growing leaders and developing managers to make the right choices for their organisations and for the society in which they live.

Ecole Centrale Paris: An Elite French Institution

Beginning in the 18th century, the government created national educational institutions as well as a new category of manager: the engineer. Nowadays, continuing this original mission, Centrale Paris' pedagogical project is to train leaders, entrepreneurs and innovators to take up the major challenges of the 21st century. Founded in 1829, Centrale Paris is a Grande école—an elite public university-level institution under the auspices of the Ministry of Education. It has the following characteristics:

• Highly selective entrance exam to the Centrale Engineering Programme, taken upon completion of a two-year intensive preparation course (university equivalent and parallel recruiting paths available for international students);

• Accredited to confer the engineering degree;
• High degree of flexibility and adaptability;
• Close articulation between technical expertise and management skills;
• Training excellence: generalist and multidisciplinary training, diverse teaching staff, modern teaching methods and tools;
• Strong ties to the business world;
• International orientation. .

TiasNimbas Business School

TiasNimbas is the business school of Tilburg University and Eindhoven University of Technology. We offer a broad portfolio of MBA, DBA, Masters (MA/MSc), Executive Masters and shorter executive programmes, in a number of locations and in various formats. Furthermore, we develop company specific programmes for renowned national and international organisations.

TiasNimbas is a university-based business school. This gives us access to a number of renowned research institutes and the latest knowledge, and also implies that we invest a lot in knowledge development. With our motto 'Never Stop Asking' we aim to push the 'frontiers of knowledge' and integrate new insights and knowledge into our programmes. We demand a lot from our participants as well as from ourselves.

This is what made TiasNimbas the renowned business school with international focus it is today. Our continuous focus on quality, our innovative programmes and the value we attach to the link between theory and real life, have resulted in strong positions in national and international business school rankings.

TUM Technische Univerisität München

The Technical University of Munich (TUM), founded in 1868 (by King Ludwig II. of Bavaria), was honored as one of the most excellent universities of Germany and is one of the leading European universities as well. It comprises diverse locations in greater Munich with 460 professors, 9,000 staff members and more than 31,000 students. Additionally, the TUM is also present outside of Munich and beyond the borders of Germany. In its position as an elite and entrepreneurial university its superior goal is to create new knowledge and products which are useful for humans, respect nature and support sustainable sciences at the same time. The focus is top-level research as well as excellent teaching. Therefore, the network of the TUM does not only contain research institutes and research cooperations with well-known enterprises such as Microsoft, BMW, IBM, SAP, etc. but also 400 partner universities all over the world and internal institutions to improve teaching continuously. Worldwide alliances and strong ties to the business world are an essential part of the TUM program.

The TUM offers interdisciplinary programs, Bachelor's and Master's, MBA executive, Studium naturalis, state examinations, Doctorate as well as Miscellaneous degrees within 13 different departments for engineering, economic, natural, life, medical and sport sciences. The university has brought forth inventors and entrepreneurs such as Carl von Linde and Rudolf Diesel, but also researchers and Nobel Prize winners like Heinrich O. Wieland or Ernst Otto Fischer. In the future, TUM is looking forward for many more ambitious persons to join and to perform successfully.

Henley Business School campus

Centrale Paris campus

TiasNimbas campus

TU München Campus

Practical Information

Due to the international nature of both participants and faculty the Professional Programme on Enterprise Architecture is taught in English, hence demonstrable proficiency will be required in speaking and writing English.

Application procedure

You must submit
- a completed application form
- a Curriculum Vitae (resume)

You will be invited for an information session and admissions interview with the Academic Director. This interview is intended to determine whether your expectations fit with the programme and whether there would be a fit with the envisioned group.

Contact

Should you have any questions about the application process or want personal advice to optimise the return on your participation in this programme, please contact us.

Programme Advice

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Henley Business School (UK)
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TiasNimbas (Netherlands)
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Fees

Your investment in participating in the Professional Programme in Business and Enterprise Architecture is € 25.000 (or € 10.000 for a single stage of three modules). Members of the European CIO Association, the associated National Bodies, Alumni of Ecole Centrale Paris, Henley Business School, TiasNimbas Business School and TU München enjoy a 20% discount on total programme or 10% on a single stage.
We offer other applicants a discounts of 10% for a single stage or 20% for the overall orogramme for a limited period (until 31/06/2012).
The programme cost includes lunch but excludes accommodation and workshop costs. No VAT is charged

Duration

This programme is part-time. It comprises 9 modules of 4 days and is scheduled over about 18 months.

Location

Courses are planned to take places in four different sites:
• Henley Business School, Henley-on-Thames, UK
• Ecole Centrale Paris, Chatenay-Malabry, France
• TiasNimbas Business School, Tilburg, the Netherlands
• TU München, Germany

The European CIO Association