ICARUS

Discover the award-winning world-class strategic business simulation

Bring new levels of engagement, co-operation and learning effectiveness to your on-line and distance learning programmes.

ABSTRACT

Icarus is a strategic business simulation delivered as a mobile App for Windows, iOS and Android devices. Over the past three years, the simulation has been run for thousands of students in over 100 countries across the globe on the University College London (UCL) Masters in Professional Accountancy and on the Queen Mary University of London (QMUL) Global MBA. Now for the first time, we are making it available to other higher education institutions.

A challenging, immersive, and robust learning experience

The Icarus Simulation is a comprehensive business tool enabling students to gain practical knowledge running a multi-faceted business enterprise. The simulation allows participants to make a range of decisions affecting strategic business functions in a realistic economic environment.

- Icarus is a team activity in which students run an airport business, facing management and financial challenges over five decision periods.

- Students interact with the simulation using a cross-platform App (iOS, Android and Win 10).

- Students co-operate in teams of four or five, taking on different roles – CEO, CFO, HRD, Chief Engineer, Commercial Director - to achieve a set of key performance targets for the organisation.

- Roles can be switched between rounds to expose participants to all areas of running an organisation, while maintaining a focus on the overall success of the airport.

- The KPIs represent a balance of financial and non-financial measures, including staff morale, passenger satisfaction, airline service, and environmental impact. These can be varied depending on your learning objectives.

- This balanced scorecard gives students a realistic impression of the holistic nature of strategic decision-making in a challenging real-world environment.

'In each decision period the teams plan and manage a broad range of business areas, making long-term investment and short-term operational decisions, managing the flow of passengers, engineering services to the airlines, car parks, airport concessions and more.'

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Some of the main advantages of Icarus include:

- **Flexibility** - before each event, the tutor can easily tune the simulation to reflect the current economy or alter the business focus, in-line with programme or module learning objectives. Options include the economic and business environment, commercial factors such as price sensitivity, airport capacity, the operational and financial start point, and whether to include certain optional decision sets.

- **Scope** - The range of the decision sets involved, from major investments in new capacity, to managing the terminals, concessions, car parks, human resources, engineering services and setting runway fees. Team forecast reports and charts update in real time, providing an immersive and challenging learning experience.

- **Credibility** – the simulation is based on a real-world business, albeit disguised and simplified, and the tuning options enable the model to remain up to date and relevant, so you can build in the impacts of, for example, a hard Brexit or a global pandemic.

- **Robust and tested software** - Icarus has been run for several thousand students in over 100 countries across the globe on the UCL MSc in Professional Accountancy and on the QMUL Global MBA. The App runs on Windows 10, iOS, and Android devices, making it accessible for students in any remote learning situation so long as they can access the internet.

- **Simple powerful tutor controls** - a cloud based content management platform where tutors can set up a new cohort, monitor team progress, communicate with the students directly in the App, and view leader boards, comparative reports and charts as the simulation progresses.

- **Expert support** - for tutors throughout each run of the simulation.

WHAT PEOPLE SAY

"Overall, my experience in the Icarus activities and building my business plan has improved my research and analysis skills, my professional writing skills, my teamworking skills, organisational skills and most especially time management which I found very difficult as a new parent."

Icarus Airport Simulation

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The module leader process

Departure
- Environment
- Airport start point
- Teams and roles
- Schedule

In flight
- Monitor teams
- Roll forward
- Communicate
- Review progress

Arrivals
- Team reflection
- Analyse results
- Give feedback
- Reveal winners

Set up

The simulation is highly flexible and can be tuned in a variety of ways, economic, commercial, operational, financial, depending on your learning objectives.

Using these features, you can fine-tune the environment to model real life or fictional events such as a financial crash, a pandemic, or a rise in fuel prices, and then adjust KPI targets accordingly. There are also options to enable or disable certain decision sets depending on objectives and available time.

The Icarus cloud-hosted content management system (CMS) makes it easy to set up events. You can upload student information to the CMS, which will then allocate students to teams and roles automatically. You can easily move students between teams, change roles and so on. In the CMS you also set the deadlines for the end of each decision period. For students, the App will display a real time countdown to each deadline.

In game

From the CMS, the tutor can message participants and send briefs, newsletters and prompts direct to the App. The CMS provides the tutor with reports, charts and leaderboards so that they can monitor and provide comments to the cohort on how the teams are doing as the simulation progresses.

At the end of each decision period, the CMS collects the decisions for each team, rolls the world forward and passes the results back to the App. Students can then compare their actual results with their forecast plans, discuss the causes of any variances and plan for the new decision period.
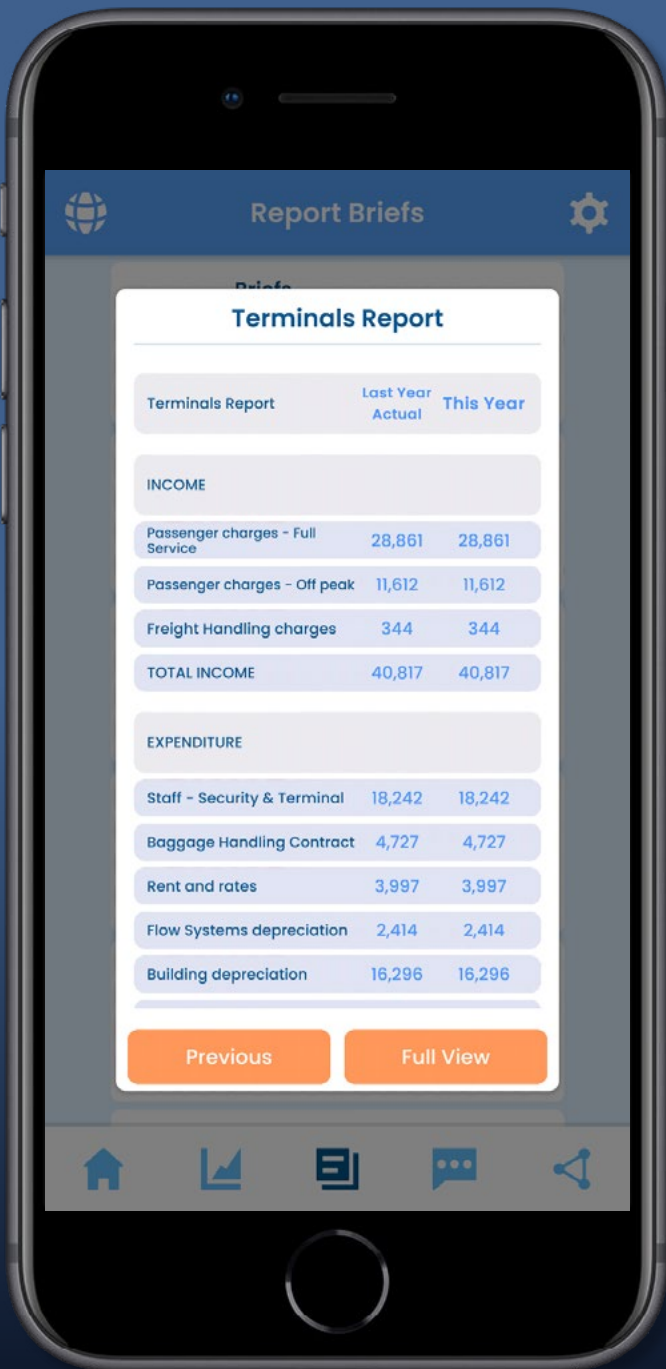
Review and reflection

After the final year is completed, students reflect and report on their team performance and key learning. Student assessment is encouraged through individual or team reports, ready for assessment by tutors. The flexibility of the simulation means tutors can formulate and structure the review in line with the learning objectives and module requirements.

The CMS produces tables ranking the competing teams on each of the KPI targets set at the start of the activity, and a composite overall KPI score which can be used to decide on the winning teams, where appropriate.
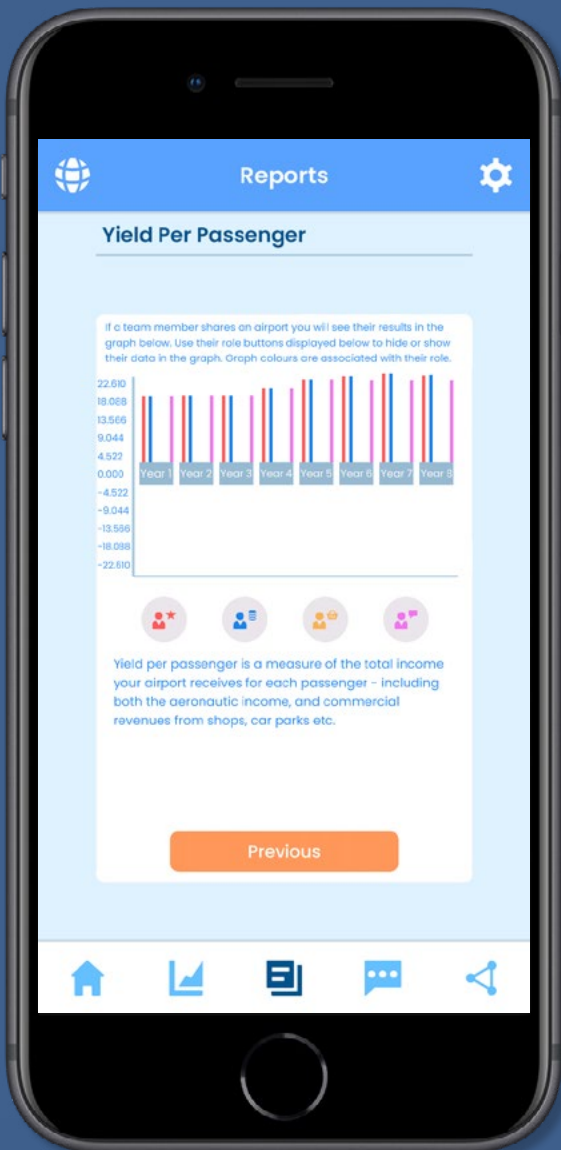
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Icarus: learning outcomes

The scope and versatility of Icarus make it uniquely valuable as a learning resource for executive development. Icarus can be used to address a wide range of learning outcomes including:

Terminals Report

Terminals Report	Last Year Actual	This Year
INCOME		
Passenger charges – Full Service	28,861	28,861
Passenger charges – Off peak	11,612	11,612
Freight Handling charges	344	344
TOTAL INCOME	40,817	40,817
EXPENDITURE		
Staff – Security & Terminal	18,242	18,242
Baggage Handling Contract	4,727	4,727
Rent and rates	3,997	3,997
Flow Systems depreciation	2,414	2,414
Building depreciation	16,296	16,296

- **Financial Management –** Students operate a virtual organisation and can see how their decision-making affects financial performance, profitability and cash flow, through a range of in-App reports, including core financial statements: income statement, balance sheet, cash flow and variance reports. Teams have to manage and grow their organisation within the constraints of the available finance, including making major investment decisions and managing margins and day to day costs.

- **Research & Analysis –** students conduct research into the economic and competitive environment of the industry through a range of source materials, alongside reports of the performance of the airport in the two years prior to their team taking over the management. There is a wide range of real-world data available about the industry sector and this can be incorporated into the activity as appropriate.

- **Strategic Planning and Decision-Making** - teams have to plan and manage their airport over a five-year period in a challenging competitive environment. They will make decisions across a range of functions - sales, marketing, engineering, HR and finance – to meet a balanced scorecard of KPIs. Students learn the holistic nature of strategic planning, and the risks of sub-optimising within a complex business environment.

- **Teamwork –** The simulation comes with built-in social media tools that enable students to interact and communicate with their team members from different locations. They can build their own scenarios, share them with team members, download scenarios of other team members and adapt them, and use the in-App chat feature. The team CEO will be responsible for coordinating team activity and submitting the agreed decisions each period. Tutors or teams can rotate the roles among the members.

Icarus: learning outcomes

- **Planning & Budgeting** – The students build a five-year strategic plan within the simulation, exploring and comparing various strategies and testing the robustness of their plan across multiple scenarios. As the simulation progresses, they have to analyse variance from forecast and adapt their plans accordingly.

They also have the opportunity to benchmark their progress with other teams, and learn from this. They also receive feedback about the market and changes in the competitive environment.

Students can adapt their plans, review their decisions, and respond to new stimuli before submitting each set of decisions, allowing students to build on each other's work.

'Through practical hands-on experiential learning, students will develop their ability to apply theoretical business concepts while the immersive nature of the activity optimises knowledge retention.'

The online resources used to introduce students to the simulation can be found at:

- App walkthrough and overview: CLICK HERE
- Airport introduction and overview: CLICK HERE
- Key drivers and decision links: CLICK HERE

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UNICORN SIMULATIONS IN PARTNERSHIP WITH UNIVERSITY OF LONDON

Unicorn Simulations have over 30 years' experience in planning and conducting training simulation events, with events in over 40 countries. The courses are well renowned for the learning effectiveness of the training, with in-depth knowledge of producing simulations ranging through the financial services, business and insurance sectors, and our close links with the Chartered Insurance Institute (CII) highlight our strength in this area.

We are also CPD (continuing professional development) accredited by the CII and the independent CPD certification service, as our simulations come with expertise and value added to professionals across a range of industries; we carry across this ethos to our Icarus Simulation.

Visit our website to learn more about Unicorn Simulations and the work we do at unicornsimulations.com

WHAT PEOPLE SAY

"I can proudly reflect on what I have learnt as a life time experience which will be applied not just at work but also in my personal life."

Icarus Airport Simulation

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