

INGENUITY



The Challenge



Successful Team Work



To run a successful business in these uncertain and challenging times, it is more important than ever that team members, often working from remote locations, have the communication and collaborative skills to form an effective team able to make key business decisions.

The **ENGINUITY Competition** develops and enhances these key people skills in a unique business management challenge that pits participating teams against their colleagues and peers from across the globe.



The Task



It is the **beginning of 2022**.

A UK-based **global construction business** that has only been in existence for one year needs a **new management team** to run the company for the foreseeable future.

The company **operates in a number of sectors**, with jobs, clients, rival competitors, and people worldwide.

To grow the business the new management team will need to devise an **effective business strategy**.

Developing an effective strategy will involve acquiring an understanding of :-

- The **economic environment** in which the company is operating
- The **strengths and weaknesses** of the business as it currently stands



To implement the strategy **decisions** will have to be made in a number of key areas :-

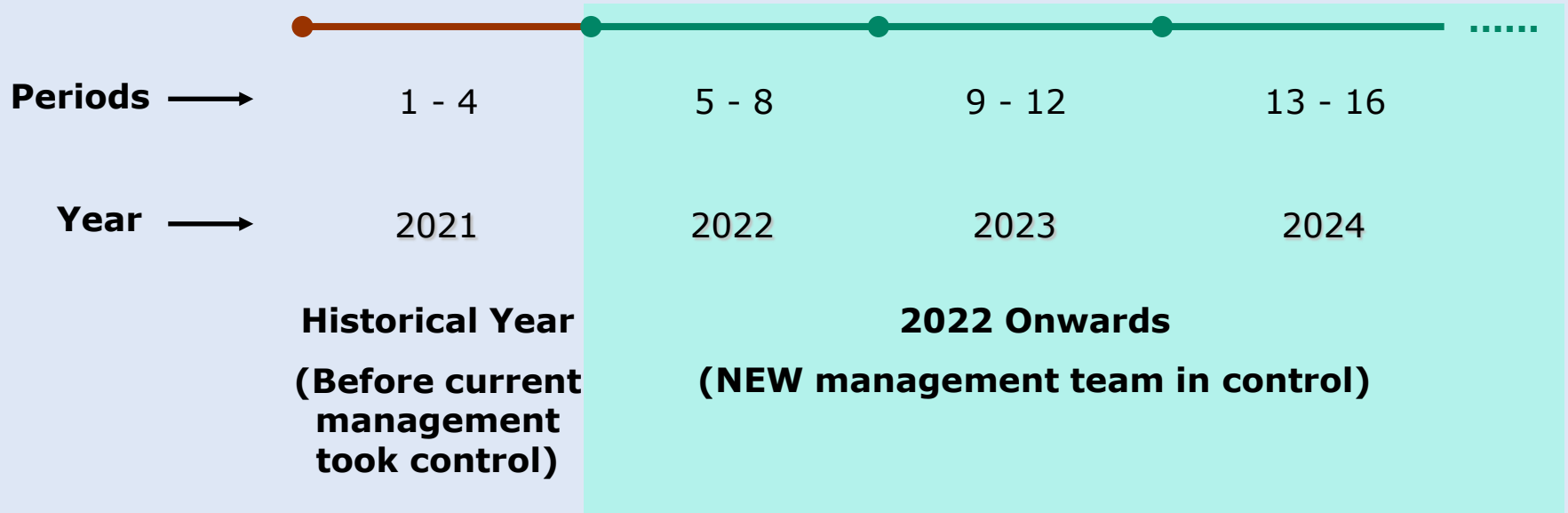
- Financial management
- Overhead management
- Procurement
- Job progression



Realistic Timeline



Decisions are made for a **period**, representing 3 months, or a quarter, in the real world.





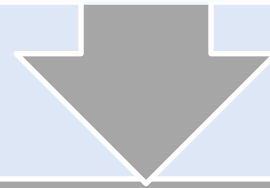
Stages of Management



The new management team will be making their first decisions for period 5 (2022 Quarter 1), and then for subsequent periods (6,7 etc) using **2 further timeframes**.

Early Years

The competition for jobs comes from a number of simulated companies. Each one has their own unique profile and bidding history, and a careful assessment of the opposition is required to formulate an effective procurement strategy.



Later Years ("Head to Head")

During the later years the teams compete against each other for work. This creates an even more uncertain and pressurized environment in which the skills and team dynamics formed in the early years are really put to the test.



Making Decisions (Core)



IDENTIFYING NEW WORK

The company will not grow without new work.

The Marketing Department identify new jobs that the company can bid for in different :-

- Locations (UK/Overseas)
- Sectors
 - Industrial
 - Building & Commercial
 - Transport
 - Energy
 - Water & Sewage



WINNING NEW WORK

The Procurement Team bid for jobs identified by the Marketing Department, which involves :-

- Assessing the bidding strategies of rival competitors
- Identifying risks and costs, and setting margins to bid competitively



PROGRESSING JOBS

Jobs secured need to be successfully completed by the Construction Team.

This involves :-

- Allocating appropriate resources to progress jobs, such as project managers and labour
- Effective risk management
- Overcoming problems that occur during the construction, such as job delays



Making Decisions (Corporate)



SHAREHOLDERS

The company is owned by shareholders who expect a return on their investment in the form of a dividend.



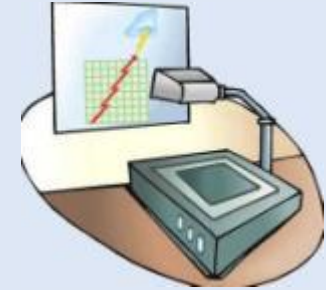
DIVERSIFYING

To reduce costs in the core business (build and risk costs), the management can invest in other companies.



INFRASTRUCTURE

To achieve enhanced growth the company's infrastructure (capital base), in the form of fixed assets such as plant, can be expanded.



OVERHEADS

Staffing the support services sufficiently will enable to company's strategy for identifying and progressing work to be carried out.

The support services departments are :-

- Marketing
- Head Office
- QHSE
- Measurement



The Global Economy



The **simulated global economy** is based upon predictions for the **"real world"**.



HQ

JOBS

There are jobs worldwide in 5 sectors :-

- Industrial
- Building and Commercial
- Transport
- Energy
- Water and Sewage

with clients, people and rival competitors globally.

WORLD EVENTS

There are economic, political and environmental **world events** that can impact upon the business.

Examples include :-

- The impact of Brexit and COVID-19
- Elections in different countries
- Global currency fluctuations
- Shortages of resources
- Civil unrest and conflicts across the globe
- Climate variations around the world
- Reports from leading world organisations





World News



Information is critical for re-evaluating business strategy, and world news, based upon current and future world events, is available from **ENN**, the **ENGINEUNITY NEWS NETWORK**.

Enginuity News Network
Period 1

ENN WORLD NEWS

2021 (Q1)
Jan - Mar

PAGE 1 2



CONSTRUCTION

When a management buyout rescued the struggling Atlas Corporation in the late 1990s, few could have foreseen the affect that the newly formed Phoenix Horizons would have on the construction industry in the UK and globally.

Phoenix Horizons have improved the profitability of jobs in the transport sector, in which they specialise, for numerous construction contractors by reducing risk costs across contracts of all size and complexity, and attract a lot on external inverstment as a result.



CONSTRUCTION

Established in 2005 to improve life across Australia, Melbourne Regeneration are about to announce plans for the 11m upgrade to the Parliament House, and suitable contractors will be invited to bid for the planned 9 month project in the second quarter of 2021.



POLITICAL

Joe Biden will be officially sworn in as the 46th president of the United States on Wednesday January 20 2021, also known as Inauguration Day.

The UK Government are hoping that high on the new President's agenda will be completing a trade deal with the UK. After five rounds of formal negotiations, both sides insist they have made good progress on what would be the UK.'s second-biggest post-Brexit trade deal, eclipsed only by the pact with the European Union.



CONSTRUCTION

Established by Royal Charter in 1996, Sport England works in partnership with the home country sports councils and other agencies to lead sport in the UK to world-class success, and they are about to announce plans for the upgrade of a boxing centre in Brixton.

The design work has already been completed for the 9m contract using a BIM model, and the job is expected to last one year, and suitable contractors will be invited to bid for the work in the second quarter of 2021.



CONSTRUCTION

Indications from a recent board meeting suggest that Holland based The Bommell Group, specialists in all aspects of building and commerical work, are expected to bid for the 18m contract to construct a new branch near Westminster in the United Kingdom for the client, Madison Bank, and they are certain to be very competitive on price.

Tenders are invited for the large contract in the first quarter of 2021, and a number of contractors have already made it known their intention to bid for the work.



POLITICAL

Continued civil unrest across Syria has raised concerns about delays to construction projects in the country with a shortage of materials, and labour.



Assessing Performance



The performance of each team each round is measured by **10 Key Performance Indicators**.

Key Performance Indicators													
CLICK ON A COLUMN TO SEE HOW THE CHOSEN KEY PERFORMANCE INDICATORS WERE CALCULATED													
End of period	Status	Year/qtr	Turnover	Gross profit to Turnover	Operating Profit to Turnover	Company Value	Capital Employed	Contract Completion	Forward Workload	Forward Margin	Share Price	Client Satisfaction	Total
4	History	2020 (Q4)	40	170	120	170	130	80	70	100	70	50	1,000
5	Early Years	2021 (Q1)	49	186	153	184	149	113	118	162	82	84	1,280
6	Early Years	2021 (Q2)	57	195	169	200	163	129	130	179	77	114	1,413
7	Early Years	2021 (Q3)	66	212	195	224	173	142	126	167	79	145	1,529
8	Early Years	2021 (Q4)	76	222	214	254	174	177	77	97	72	186	1,549
9	Early Years	2022 (Q1)	78	238	222	275	181	205	163	178	84	221	1,845
10	Early Years	2022 (Q2)	84	245	235	307	187	217	156	167	82	266	1,946
11	Early Years	2022 (Q3)	91	239	230	333	191	247	153	161	81	309	2,035
12	Early Years	2022 (Q4)	97	244	239	359	195	283	169	173	104	359	2,222

During a competition, each team's performance relative to each other is displayed on a **league table** published at the end of each round, which only shows the overall KPI score of each team.



Enginuity 2021 Competition

TEAM LEAGUE TABLE

At the end of period 12 (Early Years)

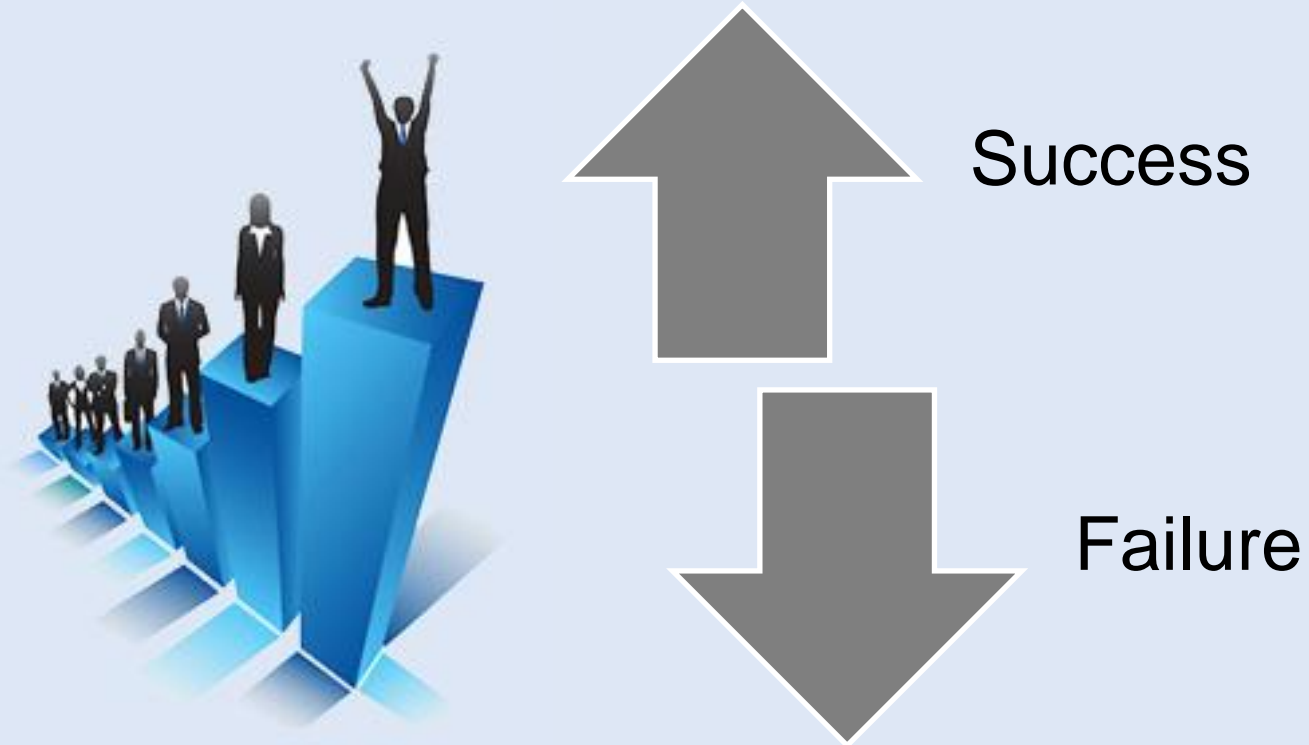
Position	Name	Sponsor	Location	Total KPI	Improvement	PERIOD MOVEMENT	
						From	Change
1	The Tower of Babble	Jacobs	UK	2,222	9 %	6	5
2	Dogecoin Mining, Inc.	Parsons	United States	2,209	3 %	1	-1
3	Diligent Disruption	Stantec	United States	2,205	5 %	2	-1
4	Bangalore BULLZ	Atkins India	India	2,163	4 %	4	0
5	Tycoons KATKAL	Jacobs	India	2,149	18 %	39	34
6	The Wolves of Milano	Jacobs	Italy	2,124	10 %	19	13
7	Whatever it takes	Stantec	Italy	2,120	7 %	10	3
8	Dark Horses	Network Rail	UK	2,119	4 %	5	-3
9	The New AECOMers	AECOM	UK	2,108	7 %	14	5
10	Choobie Dirt Beans	WSP USA	United States	2,094	7 %	15	5
11	It's Nothing Personal	Parsons	United States	2,093	0 %	3	-8
12	The Trusty Wrench	WSP USA	United States	2,093	5 %	11	-1



Success Or Failure



The fate of the company, lies in the hands of the new management team.

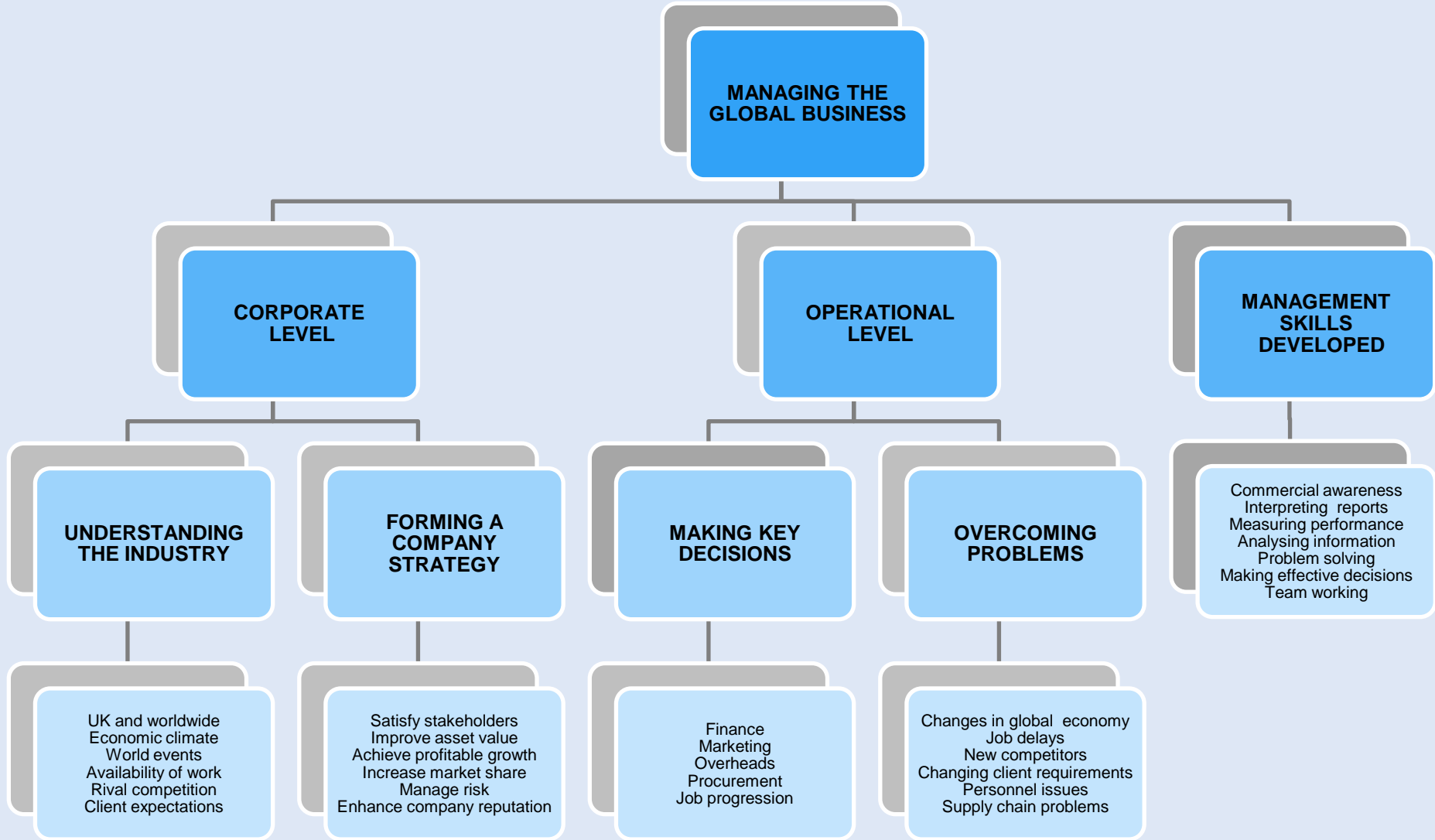




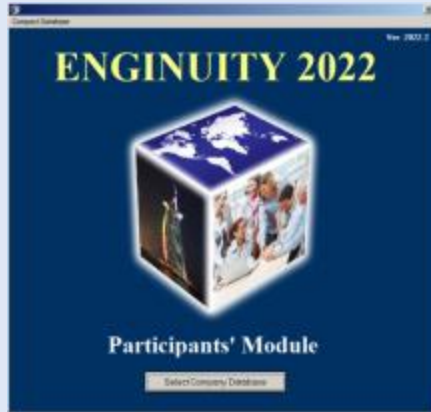
Key Features



ENGINUITY exposes participants to the key aspects of managing a global construction business.



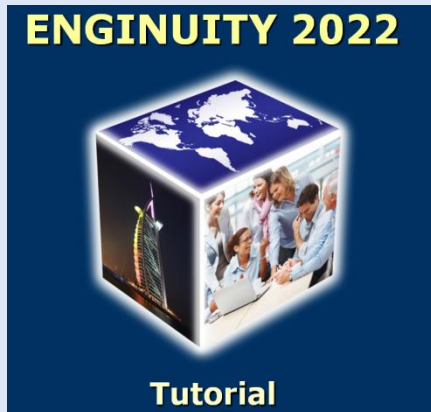
Getting Started



SOFTWARE

The **Participants' Module** is the software used by participants to take part in a competition, and enables :-

- **Decisions** to be made for each period
- **Company performance** to be measured and assessed
- The **global economic environment** to be analysed



HELP TOOLS

A **set of help tools** are available to learn how to play Enginuity :-

- A detailed slideshow tutorial
- An on-line learning zone

A yellow sticky note with the text "Practice Makes Perfect" written on it in a bold, black, sans-serif font. The note is slightly wrinkled and has a shadow underneath.

**Practice
Makes
Perfect**

LEARNING HOW TO PLAY

the best way to learn about Enginuity is to have a go, and there is the opportunity to practice making decisions and analysing the results, known as **trailing**, prior to the start of a competition.