

ENGINEUITY



Overview



The Task



It is the **beginning of 2021**.

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 :-

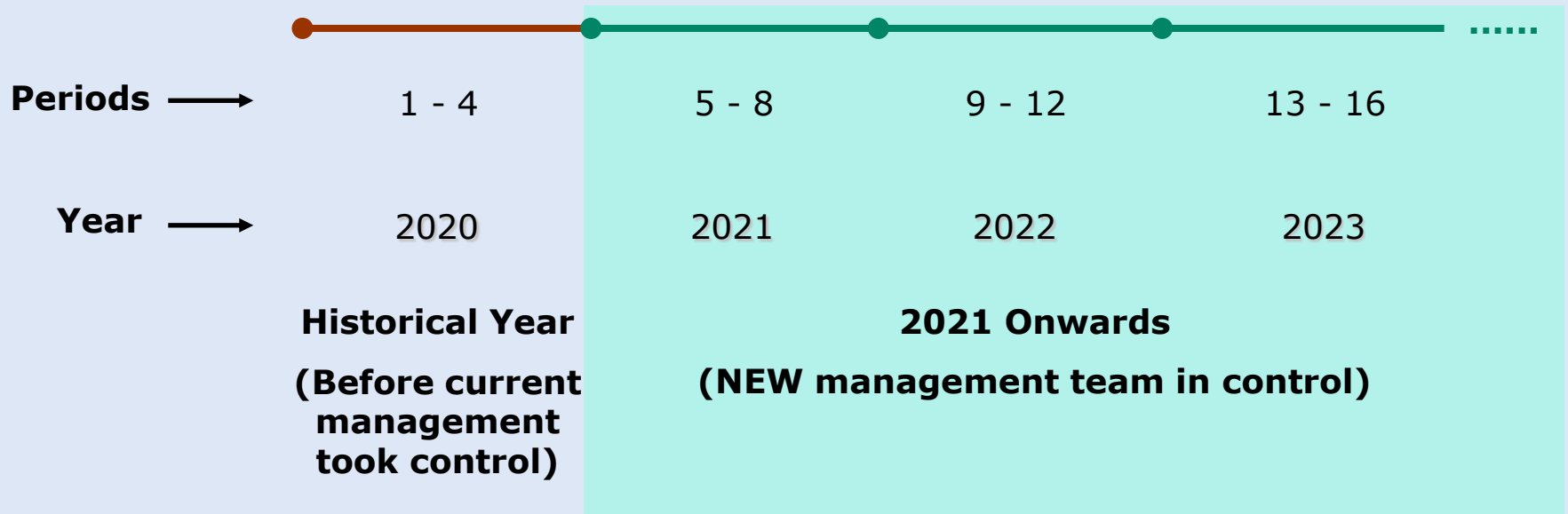
- Financial management
- Overhead management
- Procurement
- Job progression



Realistic Timeline



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





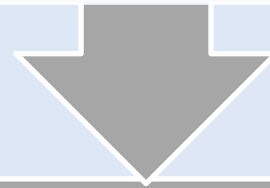
Stages of Management



The new management team will be making their first decisions for period 5 (2021 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"**.



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 **ENGINEUITY NEWS NETWORK**.

Enginuity News Network
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Period 5
2021 (Q1)
 Jan - Mar

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<div style="background-color: #e6f2ff; padding: 5px; border: 1px solid #add8e6;">  <h3 style="margin: 0;">CONSTRUCTION</h3> </div> <p>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.</p> <p>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 inverstmnt as a result.</p>	<div style="background-color: #e6f2ff; padding: 5px; border: 1px solid #add8e6;">  <h3 style="margin: 0;">CONSTRUCTION</h3> </div> <p>Qatar 2022, the publicly funded body established in 2012 to oversee the construction work in preparation for Qatar hosting the 2022 FIFA World Cup, are about to announce plans for the upgrade of the Khalifa International stadium near Doha.</p> <p>The design work has already been completed for the 12m contract, 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.</p>	<div style="background-color: #e6f2ff; padding: 5px; border: 1px solid #add8e6;">  <h3 style="margin: 0;">POLITICAL</h3> </div> <p>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.</p> <p>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.</p>
<div style="background-color: #e6f2ff; padding: 5px; border: 1px solid #add8e6;">  <h3 style="margin: 0;">CONSTRUCTION</h3> </div> <p>The HS Rail Connection Group, the public company setup by the Department for Transport to build Britain's new high speed railway, are shortly due to reveal plans for a 21m contract to work on the Colne Valley Viaduct near South Harefield, and suitable contractors will be invited to bid for the 15 month project in the second quarter of 2021.</p>	<div style="background-color: #e6f2ff; padding: 5px; border: 1px solid #add8e6;">  <h3 style="margin: 0;">CONSTRUCTION</h3> </div> <p>A leaked internal memo suggests that Harold Fidgey and Sons, one of the UK's largest privately owned construction companies, are intending to bid for the 11m waterside regeneration contract near Battersea, and they are expected to be very competitive on price.</p> <p>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.</p>	<div style="background-color: #e6f2ff; padding: 5px; border: 1px solid #add8e6;">  <h3 style="margin: 0;">POLITICAL</h3> </div> <p>Continued civil unrest across Syria has raised concerns about delays to construction projects in the country with a shortage of materials, and labour.</p>



Assessing Performance

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

Key Performance Indicators													
Show graphical analysis Help													
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	2019 (Q4)	40	170	120	170	130	80	70	100	70	50	1,000
5	Early Years	2020 (Q1)	55	187	194	178	154	90	121	177	87	72	1,315
6	Early Years	2020 (Q2)	71	193	238	191	174	122	127	186	91	104	1,497
7	Early Years	2020 (Q3)	87	206	284	212	183	151	99	141	95	130	1,588
8	Early Years	2020 (Q4)	93	225	317	227	187	159	111	157	106	159	1,741
9	Early Years	2021 (Q1)	99	233	339	244	197	193	159	211	123	191	1,989
10	Early Years	2021 (Q2)	106	236	352	260	198	193	116	149	126	220	1,956
11	Early Years	2021 (Q3)	113	241	369	282	205	221	167	187	148	246	2,179
12	Early Years	2021 (Q4)	119	242	377	301	210	250	184	199	167	283	2,332

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.



Engenuity 2020 Competition

TEAM LEAGUE TABLE

At the end of period 12 (Early Years)

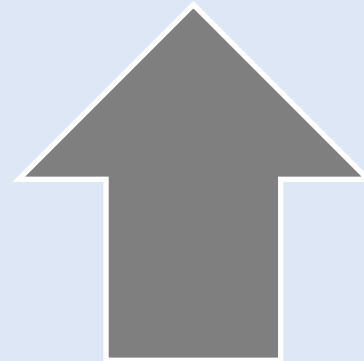
Position	Name	Sponsor	Location	Total KPI	Improvement	PERIOD MOVEMENT	
						From	Change
1	Margam	Jacobs	India	2,332	7 %	2	1
2	Stantastic	Stantec	Australia	2,295	5 %	3	1
3	J-EMPIRE II	Jacobs	UK	2,262	5 %	4	1
4	Mangineer	Parsons	Qatar	2,255	9 %	13	9
5	Hatcha la vista	Hatch	Canada	2,241	5 %	5	0
6	Flying Doraemon with Extra wings	Jacobs	India	2,240	7 %	9	3
7	Jersey Geoengineers	Parsons	United States	2,238	2 %	1	-6
8	Parsons Pentagon View	Parsons	United States	2,234	7 %	12	4
9	Sac the Competition	WSP US	United States	2,216	7 %	16	7
10	Ministry of Wopus	WSP NZ	New Zealand	2,204	6 %	11	1
11	Building Suspense	WSP US	United States	2,194	10 %	24	13
12	Business as Usual	Hatch	South Africa	2,193	7 %	18	6



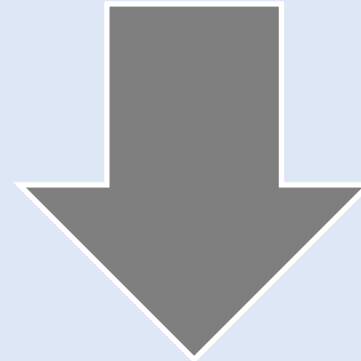
Success Or Failure



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



Success



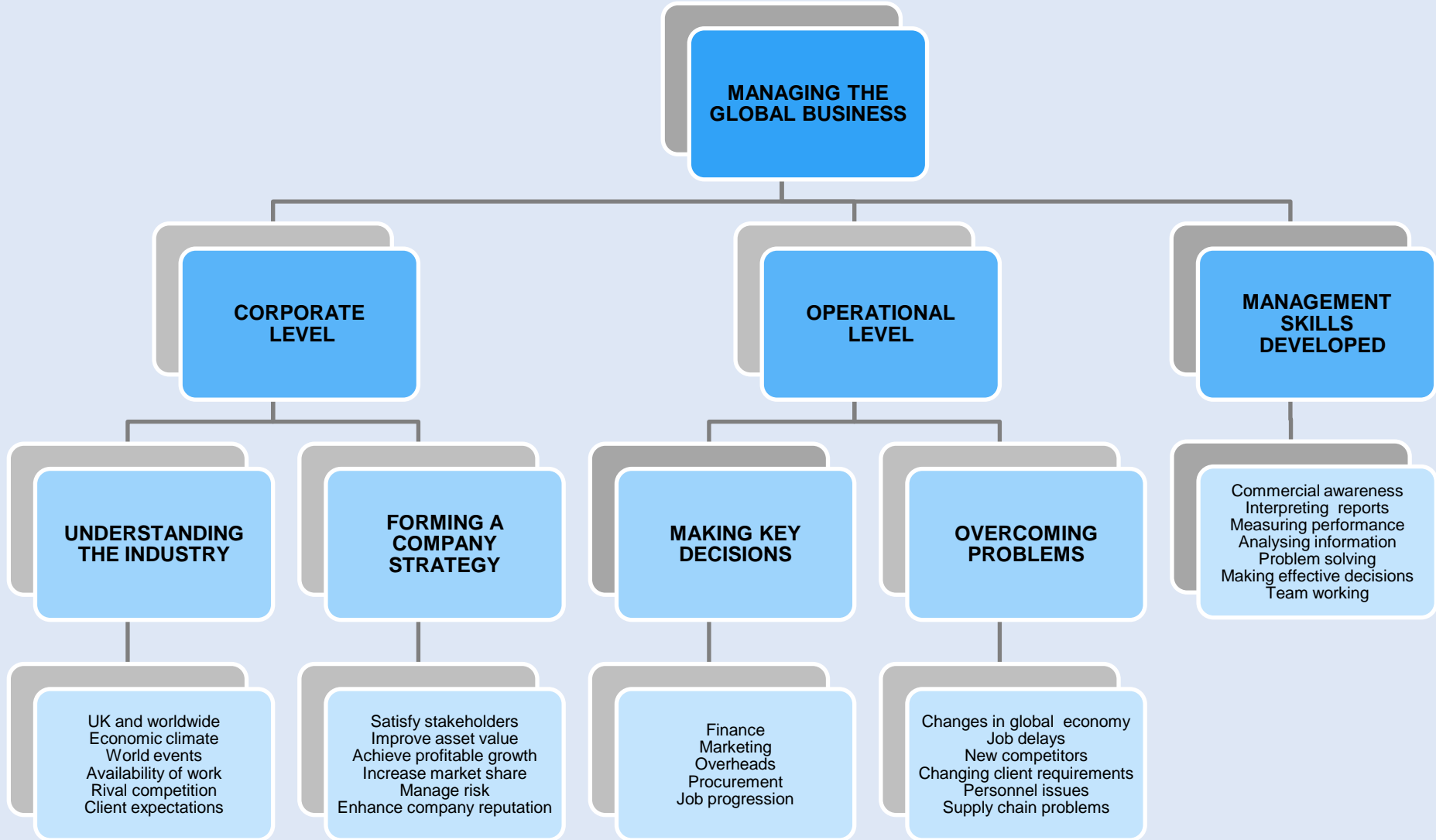
Failure



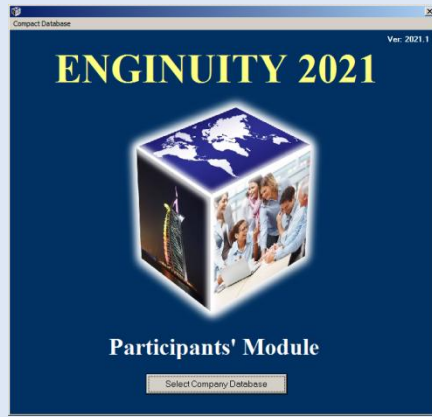
Key Features



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



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.