KAIST College of Business, KCB

Designing Disruption

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Executive Summary

Issue	Recommendation	Cost
How will digital transformation affect our business?	Understand and optimize customer needs in order to prepare for future of disruption	£900 Million
How should our design engineering business change it's business model?	Acquire digital platform to help fuel disruption → Embrace the change	£470 Million
How do we fund digital investments?	Sell shares and raise share capital. Create preferred and common stocks	£690 Million
What should we tell investors?	Vision 2020 will have to be put on hold if the company wishes to remain sustainable into the future	£420 Million

Elevator Pitch

We designing the business

1) In business model
Focus on customer need
& Platform

2) Getting money form investors
Selling stock
& managing systems more in diverse field

Disruption has come

From 2017 to 2018, Construction technology landscape

Firms	1,000 → 2,000
Cluster	3 sites → Constellation
Investment	80% increased
Geo center of gravity	N. America 75% → 80%

- Software
  (Material management, Drawing)
- Human resource platform
- Technology transfer
- Drone and 3D printing

What can we deliver?

Core value

- Safety
- Integrity
- Collaboration
- Innovation

What Customer wants

- Safe and well-managed project
- No additional cost by bad design
- No additional cost by delay
- Certified and well experienced resources
- Transparent communication

Excellent service, Authorized technology, Productivity

Business Portfolio

Infrastructure has long term contract
Profit (EBITDA margin) to be improved

Decision matrix

	Goal	Feasibility	Cost	Sustainability
Acquire more engineering technology by acquisition	Unfav	Unfav	Unfav	Fav
Go hard for restructuring	Unfav	Fav	Fav	Unfav
Invest more on R&D	Fav	Unfav	Unfav	Fav
Discard non-profitable business	Unfav	Fav	Fav	Unfav
Embrace disruption	Fav	Fav	Fav	Fav

Financial Snapshot

- 2018 Projected Revenue for SNC-Lavalin = ~ £10 Billion
- 2018 Expected Earnings Per Share = £3.60-£3.85
- Atkins Acquisitions = £2.1 Billion
  - Pension Deficit = £474 Million
  - SNC-Lavalin took £870 Million loan to fund acquisition
- Company inefficiencies amongst overlap of roles and responsibilities after Atkins acquisition, i.e. fixed costs too high

Costs

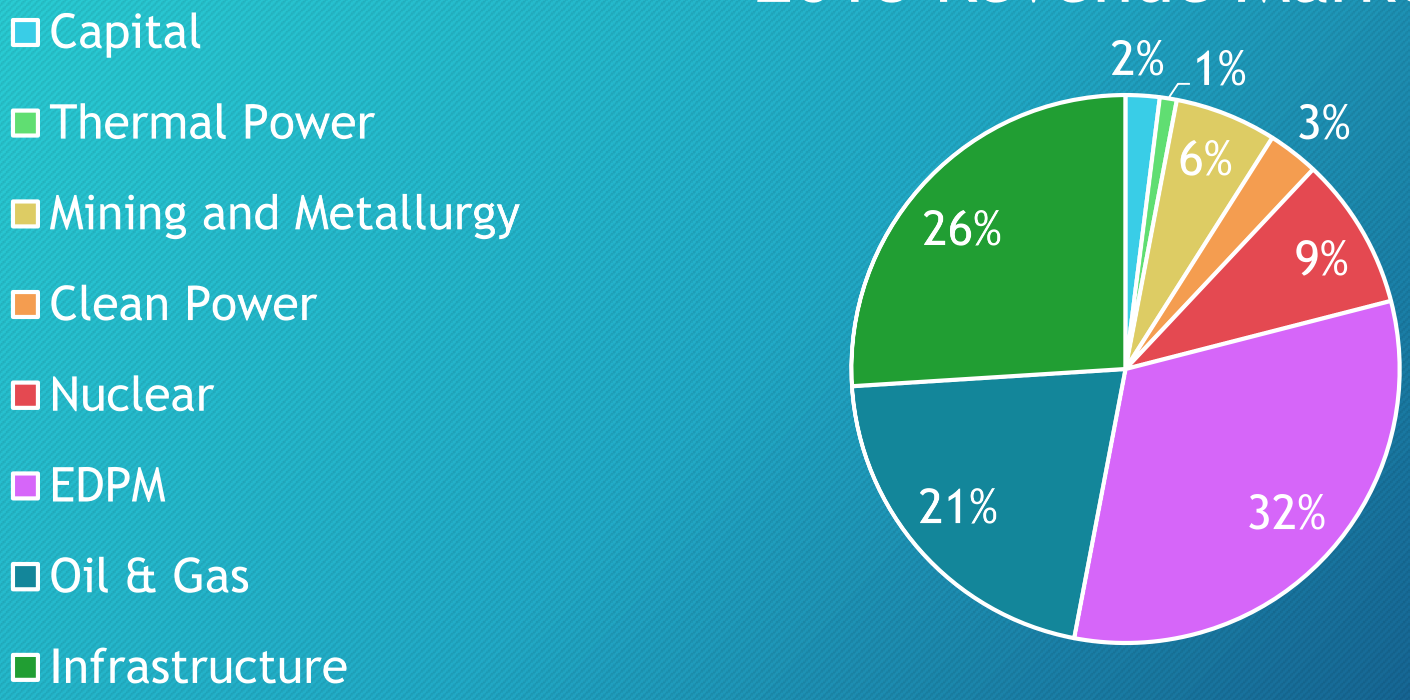
Action	Cost
Acquire digital start-ups to provide propel and command the engineer-to-client disruption	£900 Million
Start New Business Division within SNC-Lavalin focused around pushing adoption of technology in low level industries Repurpose Atkins Employees	£470 Million
Continued support of start-ups and disrupters through 2021	£690 Million

Increased EBIT Margins in EDPM

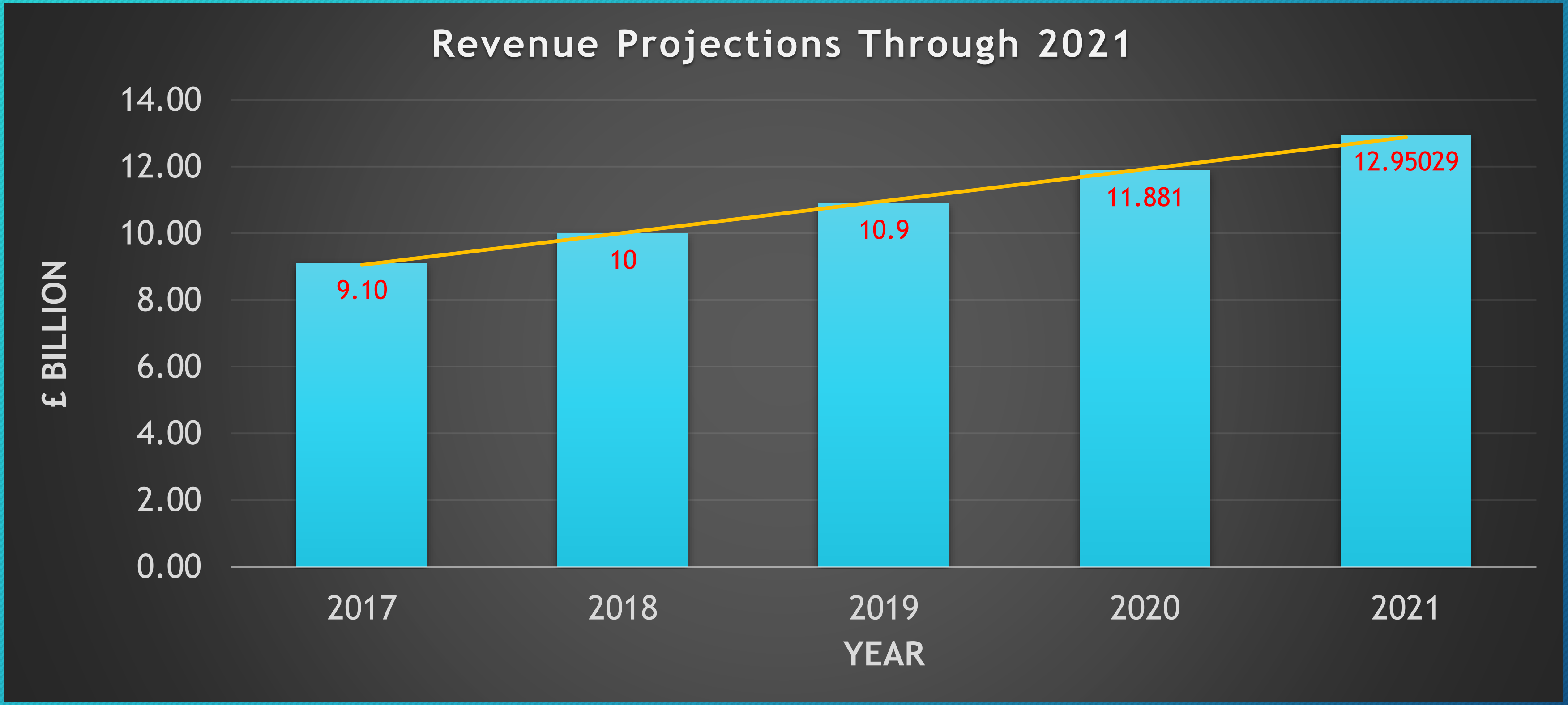
	2018	2019	2020	2021	2022
Legacy	11%	12%	14%	15%	18%
Our Recommendations	12%	18%	21%	25%	28%

Revenue Projections

2018 Revenue Markets



Revenue Projections



Risks and Mitigations

Risk	Likelihood	Damage	Mitigation
Other Players and Disruptors	High	Medium	First to Market, Dominate IP landscape, Embrace and Support disruption: command!
Cyber and Data Security	Medium	Medium	Encryption, Firewalls, Digital Twins, A.I.
Shareholder Revolt	High	Medium	Preferred Shares, Comprehensive EPS campaign, Board to SH communication

Recommendation
: Managed service platform

Managed service platform

Embrace disruption

First to innovate

Recommendation
: Managed service platform

Customer needs	• Lower (transaction) cost
Current Alternative	• Freelance platforms • Reusing their data
Disadvantage	• Cheap but unreliable • No standardized platform • Difficult to use

Recommendation : Managed service platform

Database

- Customer projects
- Customer behaviors
- Price
- Cost
- Skills needed

Network

- Customers
- Engineers
- Teams
- 3PP
- Suppliers

Brand

- Reliability
- Safety
- Security

Recommendation : Managed service platform

What it is

- SW Subscription model platform
- Connect customer & engineers
- Standardized project management system
- Risk/Transaction management

Benefits

- Balanced internal & external engineers
  - Deeper pool of HR
  - Less fixed cost
- New business model
  - Target B2C

Recommendation
: Managed service platform

Resource management

- Connect customer & engineers
- Certification process for engineers
- Procurement & etc

Project management

- Customers to manage their projects
- Project validation and modification

Risk management

- Transaction safety
- Capital to manage risk

Recommendation
: Managed service platform

Technology

- Cloud
- Big data
- Machine Learning

Trend

- Aggressive M&A
- Less needs for internal engineers
- High fixed cost & debt
- Profitable growth

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