

Nicholas Actuarial Solutions

Business Transformation Plan

November 2020



n - a c t u a r i a l

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Executive Summary

Nicholas Actuarial Solutions Sdn Bhd (“n-actuarial”) is a technology-based actuarial firm established in 2015 in Kuala Lumpur, Malaysia. n-actuarial provides consulting services and technology solutions based on actuarial science, with most of n-actuarial’s clients being insurance companies. n-actuarial has achieved significant revenue and profit growth over the years and have built a strong infrastructure ready for future growth opportunities. n-actuarial is known as a leading actuarial firm in the ASEAN region, with a strong team of professionals, large profile of clients and our exceptional work quality.

The insurance industry is faced with industry revolution 4.0. There is a need for the insurance industry to transform into a fully automated, digital industry to remain profitable and relevant in the financial service industry in the digital era.

n-actuarial is a unique company that has accumulated profound technical knowledge in complex insurance processes such as actuarial, finance, risk management, product development, reinsurance, investment and compliance, as well as the know-how to apply cognitive robots with artificial intelligence (AI) into insurance processes. With a growth and progressive mindset, n-actuarial has become a leading, growth driven actuarial firm in the region. n-actuarial is in the pole position to play the role of a key catalyst in the digital transformation of its clients in the insurance industry.

This document sets out the business transformation plan for n-actuarial to seize the opportunity to become a key catalyst in the digital transformation of the insurance industry through industry revolution 4.0. The successful execution of this business transformation plan will lead to n-actuarial becoming the largest global professional service and technology firm for the insurance industry in the long term.

To pursue this business transformation plan, n-actuarial requires an immediate capital of USD 2.5 million. The intention is to raise these funds through PitchIN, a leading equity crowdfunding platform in Malaysia. A financial projection has been performed for this business transformation. The key results of the financial projection are set out below:

Key Results	Valuation as at 30 th June 2020
Current value of n-actuarial’s operations	USD 5 million
Value of n-actuarial’s operations post business transformation	USD 583 million
Immediate capital required for business transformation	USD 2.5 million (USD 0.75m in the first year, USD 1.75m in the second year)

Post business transformation, n-actuarial is expected to turn profitable in year 3 (after 2 years of losses) and break-even in year 4. From a dividend perspective, prospective investors shall be able to recoup all the investment outlay by year 5 via dividend distribution. The value of n-actuarial’s share price is expected to increase from USD 0.08 per share to USD 9.33 per share upon successful transformation of the business.

1. Company Background

Nicholas Actuarial Solutions Sdn Bhd (“n-actuarial”) is a technology-based actuarial firm established on 8th May 2015 in Kuala Lumpur, Malaysia. It is incorporated as a private limited company according to the Malaysian Companies Act 2016.

The core business of n-actuarial is to provide consulting services and technology solutions based on actuarial science. Most of n-actuarial’s clients are insurance companies, with revenues from the insurance industry comprising 90.4% of n-actuarial’s total revenues. Insurance companies require actuarial consulting services as well as actuarial technology solutions. Companies from other industries also engage actuarial services from n-actuarial, albeit on a less frequent basis, as their needs for actuarial related services are less compared to insurance companies. Over the past 5 years, n-actuarial has accumulated a total of 75 clients and MYR 4,120,080 in revenue (as at 30th June 2020). A list (non-exhaustive) of n-actuarial’s insurance clients can be found in Appendix 1: List of Insurance and Insurance Related Clients.

n-actuarial’s vision and mission statement is “Our mission is to develop and implement novel and cutting-edge solutions to make our clients more successful. It is our vision to achieve global recognition of our thought leadership and innovative solutions in the actuarial field.” n-actuarial’s values are progressive, can-do and open communication. n-actuarial’s approach to strategy is a 4-pillared learning process to achieve long-term business objectives. The 4 pillars are its practices, geography, processes and marketing. A strategy cycle takes place every 6 months.

n-actuarial is known as a leading actuarial firm in the ASEAN region, with a strong team of professionals, large profile of clients and being well-known for our exceptional work quality and strong work processes. n-actuarial has won multiple awards and recognition over the last few years, including but not limited to:

- 2020 Quality Assurance Scheme, Institute and Faculty of Actuaries
- 2019 Top Actuarial Firm in Asia (winner), Asia Captive Awards, Captive Review
- 2019 Risk Solution of the Year (finalist), Asia Pacific Risk Management Awards, StrategicRISK
- 2018 Top Actuarial Firm in Asia (finalist), Asia Captive Awards, Captive Review
- 2017 MSC Malaysia, Malaysia Digital Economy Corporation (MDEC)

The company timeline of n-actuarial can be found in Appendix 2: Timeline of Significant Events.

The directors of n-actuarial are as follows:

- Nicholas Yeo Chee Lek (NRIC: 841216-14-5767)
- Lim Shu Yi (NRIC: 930805-14-5516)
- Lim Ee Lin (NRIC: 840228-14-5284) (non-executive director)

Currently, n-actuarial has the following shareholders.

- Nicholas Yeo Chee Lek (84.9%) as founder of company
- Lim Shu Yi (10%) as first employee of company
- Labuan Insurance Management Services Limited (5%) as the result of a share swap exercise as at 18th September 2020
- Others comprising of team members who have acquired equity mainly due to Team Stock Plan and Cash Forfeiture incentives offered to team members (collectively 0.1%)

There is a shareholding agreement that record certain commitments and to regulate the rights and obligations of the shareholders of n-actuarial and in respect of the management of the company.

1.1 People

n-actuarial was founded by Nicholas Yeo, an actuary with exceptional business acumen and a global perspective. Nicholas is currently only 36 years old, but already has experience practising as an actuary in many countries across Asia, America, Europe, Africa as well as Australasia. At the age of 23, Nicholas was the youngest Malaysian to attain Fellow of the Institute and Faculty of Actuaries.

Nicholas is well known for being a thought leader in the actuarial profession. He is one of the few actuaries that has been selected to present multiple times at the International Congress of Actuaries. Nicholas is also the winner of Society of Actuaries 2020 Young Actuaries in Asia Essays on Societal Impact award, contributing to developing mortality tables using data science. Most actuaries do not have similar skills and experience in the field of technology and AI, let alone the vision of digital transformation of the insurance industry, thus giving Nicholas a very unique founder advantage.

n-actuarial currently has a strong team of 25 people, comprising of professional actuaries and accountants. The senior team members have extensive experience at board, senior management and technical levels in the insurance industry, in life insurance, general insurance, takaful and reinsurance companies, across all functions including general management, marketing, risk, finance, actuarial, product and strategy. Currently, n-actuarial has 7 actuaries with credentials from international actuarial professional bodies, making us one of the largest teams in South East Asia.

n-actuarial maintains a unique remuneration structure, which comprise of a spot bonus plan, team stock plan, cash forfeiture option as well as practice leader contracts to ensure that the team is adequately remunerated and motivated to contribute to the long-term objectives of the company. In addition, the working environment is highly supportive and flexible, empowering the team members to manage their own time and work accordingly. These are all documented in n-actuarial's Team Member Success Framework.

n-actuarial has a stringent recruitment process, with prospective actuarial analysts having to go through challenging technical assessments to ensure that actuarial analysts are able to perform and deliver work at the high standards set. n-actuarial provides top-of-the-line study benefits for our actuarial analysts to support their exams and professional development. This is to ensure that top talents are attracted, retained and developed appropriately.

1.2 Financials

The key financials of n-actuarial as at 30th June 2020 (according to audited financial statements) are as follows:

Key Financials	Audited Financial Statements 30 th June 2020 (MYR)
Revenue	1,945,568
Profit	848,061
Cash Flow Position	124,091
Shareholders' Equity	498,486

The past financial results of n-actuarial are tabulated below:

Financial Year Ending 30 th June	2020	2019	2018	2017	2016
Gross Revenue (MYR)	1,945,568	1,394,461	563,116	103,423	113,512
Net Profit (MYR)	848,061	540,206	243,352	960	- 46,593

The gross revenue grew by 40% and 148% respectively in year 2020 and 2019. The net profit grew by 57% and 122% respectively in year 2020 and 2019.

n-actuarial has a paid-up capital of MYR 100,000 as at 30th June 2020. In 2019, the paid-up capital was increased by MYR 50,000 for additional working capital purposes.

The financials of n-actuarial are strong as the company has been managed on a prudent basis. However, the small financial base of the company has restricted the opportunities that can be pursued for long-term benefits. Hence significant financial investments are required to propel n-actuarial to the next level.

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1.3 Investments

In addition to its day to day operations, Nicholas Actuarial Solutions also holds the following investments. The objective of these investments is to further the business objectives of n-actuarial. It is the intention of n-actuarial to continue to pursue strategic investments to further our business objectives.

Name of Entity	% shareholding	Main Activity	Investment Rationale
Two Actuarial Solutions Pte Ltd (201905829W)	100%	Same as Nicholas Actuarial Solutions, geographical focus is Singapore.	This was a new company established in 2019 to provide services with more focus to our clients in Singapore.
Deartime Berhad (Deartime) (1309554-D)	2%	Digital life insurance business	<p>This company is expected to be the first digital life insurance company in Malaysia with a special insurtech license to be issued by Bank Negara Malaysia. This company is currently valued at MYR 50 million.</p> <p>Deartime would be required to increase its paid-up capital to MYR 100 million upon successfully obtain a digital life insurance license from Bank Negara Malaysia. n-actuarial would require capital to subscribe to the rights issue to amounting to an estimated MYR 1.8 million to avoid shareholding dilution. The projected valuation of Deartime is MYR 400 million after 5 years of operations.</p>
Labuan Insurance Management Services Limited (LL02864)	2.5%	Insurance management services to Labuan insurance companies.	This company has many common clients with n-actuarial and has a strong client base in Labuan IBFC – a leading offshore financial jurisdiction in Asia. It is regulated by the Labuan Financial Services Authority. This company is currently valued at USD 10 million.

In addition, the following opportunities are in the pipeline:

1. Intelligent Life Travel LLP – an InsurTech travel platform. The intellectual property lies in the auto-underwriting rules to provide an agile risk assessment for travel insurance and the experience in implementing these systems globally.
2. SEY Re Limited (SEY Re) – a new reinsurance company providing general reinsurance in Africa. SEY Re is the pioneer reinsurer in Seychelles who provides coverage to non-life businesses especially the non-motor businesses to the African region. The insurance market in Africa is currently under-exploited so there is massive upside potential.

1.4 The 4P's of Marketing

1.4.1 Product

Consulting services currently comprise more than 90% of n-actuarial's revenues. Insurance companies engage n-actuarial for consulting services due to the following reasons:

1. Small insurance companies do not want to recruit actuarial staff.
2. New insurance companies do not want to recruit actuarial staff during the first few years of operations.
3. Large insurance companies are unable to recruit actuarial staff with specific skill sets over a specific short time period.
4. Insurance companies do not want to recruit actuarial staff for work that is one-off, short-term in nature.
5. Insurance companies want an independent opinion.

Every insurance company would require actuarial consulting services of some form, at some point in time. In particular, two areas that require significant actuarial consulting services are identified as follows:

1. Developing markets require significant actuarial consulting services due to the lack of local actuarial talent and high growth opportunities in the insurance sector.
2. Markets implementing International Financial Reporting Standards (IFRS) 17 Insurance Contracts. The timing of implementation differs between countries.

Examples of n-actuarial's consulting services for insurance companies include:

- Appointed actuary service
- Actuarial valuation service
- Actuarial pricing service
- IFRS 17 implementation service
- Actuarial feasibility study service
- Risk management service
- Merger and acquisition service

Technology solutions currently comprise less than 10% of n-actuarial's revenues (note, some technology solutions and consulting services are provided together). Insurance companies engage n-actuarial for technology solutions for operational efficiency and cost reduction reasons. When insurance companies engage n-actuarial for consulting services, n-actuarial also use technology solutions to perform the work.

Examples of n-actuarial's technology solutions include:

- IBNR Robot (Cognitive robot with AI to perform actuarial reserving and actuarial pricing for insurance companies). IBNR Robot increases the efficiency of actuarial departments in insurance companies, in return n-actuarial receives a licensing fee. It is also critical in speeding up n-actuarial's existing processes. The IBNR Robot is widely accepted by the scientific community and is currently patent pending.
- HINSURTECH (Cognitive robot with AI to help consumers select the most appropriate medical insurance product to buy). HINSURTECH channels sales to insurance companies, in return n-actuarial shall be remunerated by a commission.

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- ReACC (Automation tool to perform reinsurance accounting and administration for insurance companies). ReACC increases the efficiency of reinsurance processes in insurance companies, in return n-actuarial shall receive a licensing and/or management fee.
- SIMPLE 17 (Automation tool to perform financial reporting for insurance companies). SIMPLE 17 increases the efficiency of finance and actuarial department in insurance companies, in return n-actuarial shall receive a licensing fee and win IFRS 17 implementation projects.

It is the intention to continue to develop more technology solutions.

Insurance companies typically do not build technology solutions internally. In some cases, technology solutions are purchased from external vendors, in other cases, insurance companies would perform the tasks manually in absence of technology solutions.

n-actuarial also provides actuarial consulting services to companies outside of the insurance industry. Most prominently, n-actuarial performs actuarial valuation of employee benefits for companies that provide retirement and other benefits to their employees. It is the intention to continue to develop and grow this part of the business, in its current form. There has not been any significant transformation opportunities identified in the employee benefits practice, as well as any other opportunistic actuarial services that n-actuarial provides. Hence this is not the focus of this business plan.

The current product range has delivered business growth and profits. However, it has the following weaknesses:

1. Consulting services are not readily scalable. It requires a large team of highly skilled people to deliver the services. Some of these services are one-off in nature thus not the most efficient from a business development perspective.
2. Technology solutions are built in-house, entirely from scratch, and then pitched to the customers. The development time is long, and significant customisation is required at implementation.

Thus, n-actuarial needs to embark on a business transformation to address these weaknesses.

1.4.2 Promotion

n-actuarial has identified 11 touch points with clients and potential clients. Currently, the main source of business is from referrals by word of mouth. This can be through existing clients as well as other contacts (also known as ambassadors) from the industry. n-actuarial also actively pursues outbound marketing, guided by the Opportunity Management Playbook.

n-actuarial's key messaging to clients and potential clients include:

- n-actuarial is a market leader and provides high quality actuarial services (through promoting the awards won)
- n-actuarial is the point of innovation (through promoting the technology solutions)

1.4.3 Place

The current main markets of n-actuarial are Malaysia, Singapore and Cambodia. Collectively, these markets contribute 62% of n-actuarial's revenues in 2020. These are also the 3 markets that n-actuarial has focused most of its business development activities in the past.

The current secondary markets of n-actuarial are Thailand, Indonesia, Brunei, Myanmar and Hong Kong. Specifically, Thailand and Indonesia have been identified as the growth market for n-actuarial, especially for IFRS 17 solutions. The offering of n-actuarial is universal and appeals to insurance companies globally. n-actuarial needs to build up stronger marketing and delivery capabilities to fully capitalise on this benefit.

1.4.4 Price

n-actuarial adopts a simple pricing strategy, with the intention to set prices such that every quotation can be won. The objective of the business is to grow, not to maximise immediate profitability. To ensure short-term profitability, n-actuarial has developed efficient work processes as well as technology solutions, to ensure that work can be delivered efficiently.

1.5 SWOT Analysis

This is a summarised SWOT analysis of n-actuarial.

1.5.1 Strengths

1. Strong Team. We have a large team of highly skilled professionals (refer to Section 1.1 People for further details). To facilitate our business transformation, we need to continue to attract and retain top people to our team.

Every year, we shall allocate USD 480,000 towards expanding our team, hiring the top talents in actuarial, accounting and IT to execute our business transformation.

2. Brand. We have developed a strong brand and have received multiple awards (refer to Section 1. Company Background for further details). With our brand, we have built a strong network in the insurance industry, thus giving us access to investment opportunities as described in Section 1.3 Investments.

To further strengthen our brand value, we shall allocate a specific marketing expense of USD 220,000 per year towards relevant activities including sponsoring and speaking at insurance conferences and award events, as well as specific client activities aimed at promoting our Innovation Lab.

3. Tax status. The MSC Status from MDEC and the Pioneer Status from MIDA exempt n-actuarial from any corporate profit tax.

1.5.2 Weaknesses

1. Financial Strength. n-actuarial is currently entirely funded from retained profits (refer to Section 1.2 Financials for further details). Whilst the operations have been profitable, n-actuarial have been unable to make substantial investments and technology development initiatives without adversely affecting its financial position.

n-actuarial is seeking for Pre-Series A investment of MYR 3 million (approx. USD 0.75 million) to overcome this weakness. With a larger balance sheet and less financial constraint, n-actuarial would be in a better position to pursue opportunities, especially in technology solution with long term benefits.

2. Speed & Scalability. The current business model is unable to deliver quick and explosive growth. To deliver consulting projects, n-actuarial needs to ensure that it has adequate resources with relevant technical skills and experience. Despite the large and strong team, n-actuarial is still unable to deliver all the consulting opportunities in the region. Furthermore, many actuarial consulting projects take a long time to complete due to the complexity of the work. On the technology solution side, the current method of building, marketing and implementing technology solutions involves a very long lead time from technology development to business development to customisation.

The proposed business transformation is aimed at addressing this weakness.

3. Intellectual Property Protection. Due to limited resources, the intellectual properties are not as well protected from a legal standpoint as it could have been, i.e. our IBNR robot is currently patent pending. Currently lawyers are engaged to resolve this matter. The intellectual property is well protected from a practical standpoint as it is almost impossible to imitate due to the high technical sophistication as well as our branding in the insurance industry (the insurance industry knows that only n-actuarial produces such technology solution).

With sufficient funding and resources, it shall be ensured that the intellectual property is adequately protected from a legal standpoint.

1.5.3 Opportunities

1. Technology Solution. The main opportunity is to develop technology solutions for insurance companies (refer to Section 2.1 Insurance Industry & Industry Revolution 4.0 for further details).

The proposed business transformation is aimed at addressing this opportunity.

2. Investments. n-actuarial is in the heart of the insurance ecosystem, and hence receives information about investment opportunities in the insurtech space. Furthermore, n-actuarial is in a good position to assess these investment potentials and make use of any associated synergies.

With adequate funding and financial strength, n-actuarial would be in a better position to invest in these potentials, thus reaping both financial and synergy benefits.

3. Consulting Services. Actuarial consulting services remain in demand from insurance companies. This is especially the case in developing markets with little actuarial resources, as well as in markets with IFRS 17 implementation projects.

The proposed business transformation plan partially addresses this opportunity, as USD 240,000 would be allocated to hiring additional team members to deliver consulting services which also serves as an entry point customer to our technology solutions.

1.5.4 Threats

1. Talent Attraction & Retention. The delivery of work related to both consulting services and technology solution relies significantly on the team members. With the increasing demand for actuarial work in the region, if n-actuarial is unable to attract and retain the appropriate actuarial (as well as accounting and IT) talents, the business will be badly affected.

Currently, the staff turnover rate is very low, with only one resignation in the past 2 years. Nonetheless, this remains a significant threat to the business.

2. Pioneer Status – The company is due for a renewal assessment for its Pioneer Status in 2021. Failure to renew the Pioneer Status would lead to loss of tax benefits mentioned under Section 1.5.1 Strengths. Furthermore, n-actuarial currently employs expatriates. Losing the Pioneer

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Status may lead to difficulties in renewing the work permits for its expatriates, thus losing key team members.

Successfully raising funds would also serve to ensure that the KPI's set by MDEC related to the Pioneer Status can be met.

3. Competition – At this current juncture, companies in the similar industry are not pursuing the development and implementation of technology solutions in an aggressive manner. The main reason is that it is very difficult to acquire talents with skills and experience in technology and AI as Nicholas, not to mention the vision to deploy technology to transform the insurance industry in industry revolution 4.0.

Nonetheless, there are similar companies that are either currently in the fringes of this space or have capabilities to move into this space. This includes Aon PLC (AON), DXC Technology Company (DXC), Fidelity National Information Services, Inc (FIS), Marsh & McLennan Companies, Inc. (MMC), Moody's Corporation (MCO) and Willis Towers Watson PLC (WLTW). An analysis of these firms is set out in Appendix 3: Similar Companies.

2. Business Transformation

2.1 Insurance Industry & Industry Revolution 4.0

Globally, insurance is a 5 trillion-dollar industry and a cornerstone of the financial sector. In Asia itself, the insurance industry is worth USD 1.5 trillion of annual revenue. The Asia-Pacific non-life and life sector grew at a CAGR of 7.5% and 4% across 2013 to 2018 respectively and are projected to grow even further.¹

The insurance business is built upon the fundamentals of actuarial science, which enables insurance companies to accurately assess and manage risks. Instrumentally, the application of actuarial science enables insurance companies to charge an adequate level of premium against the risks underwritten and to maintain a sufficient level of financial reserves to pay insurance claims, ultimately ensuring the financial soundness and sustainability of the insurance companies.

Broadly speaking, operating expenses and distribution costs make up 30% of the total revenues of insurance companies (this is commonly known as the expense ratio). The remainder 70% of revenues mainly comprise of claims paid to its customers as well as profit to the insurance company. A common key business objective across all insurance companies is to reduce operating expenses and distribution costs to drive operational efficiency.

With the onset of industry revolution 4.0, technology is playing an ever-increasing role in the insurance industry. The majority of work processes within an insurance company will become automated in the near future. Simple operational and administrative processes that are currently performed by lower-skilled labourers shall eventually be replaced with basic robotic process automation (RPA). Complex and technical processes that are currently performed by highly skilled technical professionals shall also be largely replaced by cognitive robots with artificial intelligence (AI). Headcount associated with claims processing in 2030 is projected to be reduced by 70% to 90% as compared to 2018 levels, as automation replaces claims processes, improving efficiency and accuracy.²

Post-industry revolution 4.0, the insurance industry is expected to become highly automated, highly efficient and less labour intensive. The cost structure of the insurance industry will also reduce, resulting in higher profits for shareholders as well as cheaper insurance premiums for consumers. Technologies, such as automation, digital applications and advanced-analytics engines, have helped digital-first companies reduce their expense ratios to almost 40% lower than those of traditional property and casualty insurers.³

At this current juncture, the operations of insurance companies remain very human-intensive. Simple operational and administrative processes are beginning to be automated with basic robotic processes. However, there is little automation taking place with respect to complex and technical processes. This presents a significant opportunity for n-actuarial.

¹ EY – 2020 Asia-Pacific Insurance Outlook

² McKinsey – 2019 Global Insurance Trends and Forecast

³ McKinsey – The Insurance Switch Technology Will Reshape Operations

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Subsequently, at a more advanced stage in industry revolution 4.0, insurance companies would utilise blockchain technology to further transform insurance processes, at the front end with the consumers as well as at the back end operations. Furthermore, with stronger technology infrastructure, insurance companies would be in a better position to maximise the value of data science with respect to risk assessment and risk management. With n-actuarial at the forefront of insurance technology, these opportunities will be knocking at n-actuarial's door.

2.2 Transformation

Considering the opportunities faced by n-actuarial, n-actuarial shall no longer continue its existing operations in the existing manner. The following business transformation would significantly benefit n-actuarial:

1. n-actuarial's current consulting services clients shall become the entry point customers for technology solutions. In the past, the focus was on acquiring clients to deliver consulting services in return for a fee. The current focus shall remain to be on acquiring clients, however, the focus is to channel these clients to the Innovation Lab.
2. The Innovation Lab shall focus on the development of new technology solutions targeted to the actual problems of the entry point customers. In the past, new technology solutions were developed based on general market demand and n-actuarial's capabilities instead of actual problems of clients.
3. Development of new technology solutions and implementation existing technology solutions shall be the focus to deliver long-term financial objectives. In the past, the focus was on delivering consulting services for short-term financial objectives.
4. n-actuarial shall continue to pursue investment opportunities as mentioned in Section 1.3 Investments. With sufficient funding, n-actuarial shall be able to pursue this in a larger scale

2.2.1 Innovation Lab

A cornerstone of the transformation plan is to establish the Innovation Lab. The Innovation Lab shall also become the main marketing message of n-actuarial.

n-actuarial shall invite existing clients to join the Innovation Lab. By joining the Innovation Lab, clients agree to provide unique real-life business problem which can be solved by n-actuarial's technology solution. n-actuarial shall also facilitate design thinking workshops to facilitate this problem generation process.

The Innovation Lab shall accentuate our potentials and enable n-actuarial to:

- Develop solutions with a ready client, thus reducing lead time related to business development.
- Develop solutions with a familiar existing client, thus reducing various project-related risks.
- Develop solutions based on the existing infrastructure of the ready client, thus reducing customisation cost and time on the first implementation.
- Focus on actual specific problems faced by the client, instead of generic high-level problems faced by the insurance industry, thus maximising the relevance and value of the solution.
- Focus on common problems faced by clients, thus maximising the scalability of the solution.

The key participation drivers of the Innovation Lab shall include:

1. Credentials, brand, track record and experience with existing clients of n-actuarial.
2. Low cost to solving problems, thus encouraging clients to join.
3. Experimental based, the client has a low downside shall the proof of concept fail.
4. Publicity and reputational benefits for clients (insurance companies are actively seeking for success stories related to industry revolution 4.0).

The process of the Innovation Lab shall be as follows:

1. INVITE. Regularly invite clients to provide business problem.

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2. **ASSESS.** Assess the feasibility of developing a new technology solution or customising an existing technology solution to the problem.
3. **IDENTIFY.** Identify the most feasible problem to solve, based on the potential commercial value including scalability of the solution.
4. **DELIVER.** Develop the technology solution and deliver it to the selected client.
5. **PROMOTE.** Promote the technology solution to the market.
6. **SCALE.** Customise the technology solution and deliver it to other clients.

The Innovation Lab is expected to generate multiple IPs in the form of basic robotic process automation as well as cognitive robots with AI. These IPs shall become fully developed, licensed to multiple insurance companies as well as patented and protected accordingly. Examples include:

- New techniques, models and methodologies of performing actuarial work including cognitive robots with AI
- R Shiny web and desktop applications including automation (with or without cognitive AI)
- Basic robotic process automation (RPA)
- New insurance products and new ways of selling insurance leveraging on the latest technology
- Machine learning applications in insurance

The Innovation Lab shall require the following resources.

Physical Premise. A physical premise for the Innovation Lab will be set up in the heart of Kuala Lumpur. It shall comprise of:

1. Two rooms for the purpose of client meetings, internal meetings and design thinking workshops.
2. An open workspace for our team members.
3. A showcase corner to exhibit our work and products.

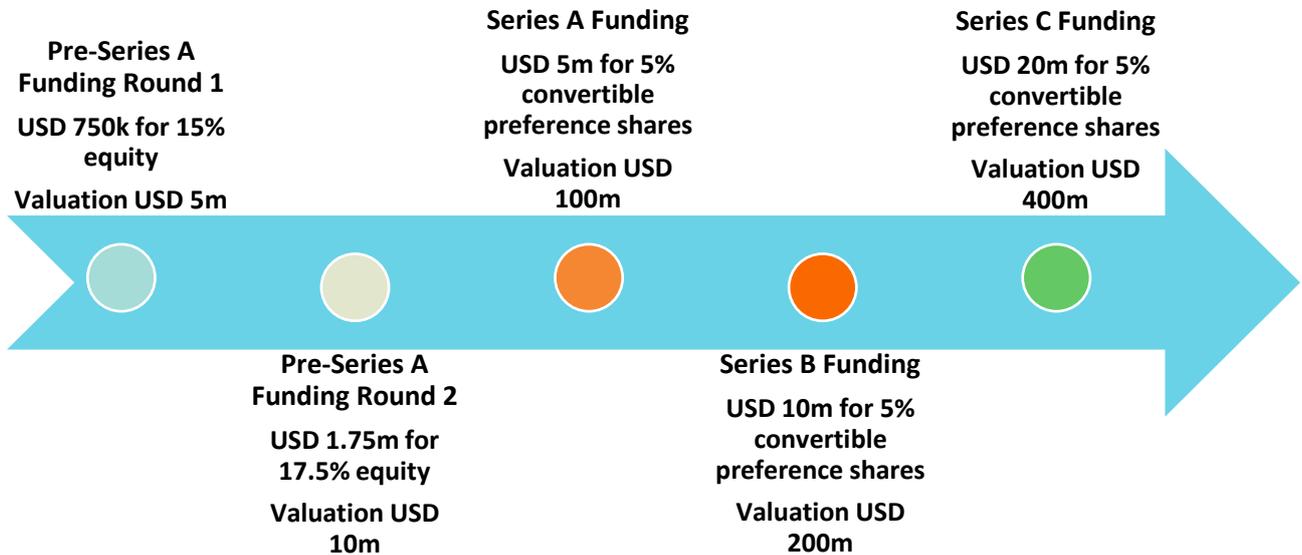
Human Resources. The Innovation Lab shall be staffed with 2 actuaries, 2 analysts and 2 developers comprising of an actuarial consulting team and a technology team. The technology team's role is to deliver 6 development and/or implementation projects for technology solutions in a year. In addition, to ensure that there are sufficient entry point customers to be funnelled to the Innovation Lab, the actuarial consulting team (in addition to our current team) of 2 actuaries and 4 analysts to provide consulting services. This additional team is expected to bring about 24 client projects a year.

Financial Resources. To establish the Innovation Lab, an initial investment of USD 750,000 is required, with USD 480,000 for one-year's salary of the additional team members, and USD 270,000 for the physical premise as well as general marketing and other operating expenses (which includes legal costs required for intellectual property protection). The breakdown is as follows:

First Year Expenses (USD)	Quantity	Cost	Total Cost
Actuary – Salary + Benefits	4	80,000	320,000
Analyst – Salary + Benefits	6	20,000	120,000
Developer – Salary + Benefits	2	20,000	40,000
Physical Premise		20,000	20,000
Marketing Expenses – Event Sponsorship in Insurance Events	4	25,000	100,000
Marketing Expenses – Client Activities including Design Thinking Workshops	24	5,000	120,000
Other Operating Expenses			30,000
Total			750,000

2.2.2 Funding

The funding roadmap of n-actuarial is as follows:



n-actuarial intends to raise funds for Pre-Series A Funding Round 1 through equity crowdfunding (ECF) on PitchIN, a leading equity crowdfunding platform in Malaysia. Subsequently the intention is to raise funding via convertible preference shares. In the long term, n-actuarial is aiming for an initial public offering (IPO) on ACE Market of Bursa Malaysia, Catalist of Singapore Exchange or the Nasdaq.

The benefit of raising funds with PitchIN is that we shall benefit from PitchIN’s partnership with both the Malaysian Technology Development Corporation (MTDC) and the Malaysia Co-Investment Fund scheme (CIF) to provide funds in addition to those raised from the public. Furthermore, PitchIN is currently setting up a secondary market that will enable ECF investors to sell their equity to interested buyers in the future, thus increasing the liquidity of the equity of n-actuarial for shareholders.

As a benchmark, the valuation of USD 5 million for Pre-Series A Funding Round 1 implies a P/E ratio of 24. The P/E ratios of similar companies range from 19 to 32 (refer to Appendix 3: Similar Companies).

Pre-Series A Funding Round 1 shall be utilised to fund the first year expenses of the Innovation Lab. The subsequent rounds of funding would be used for subsequent expansion and transformation projects. As an example, n-actuarial shall be in a pole position to lead insurance companies to blockchain applications, with our team member Raymond Lai being a Certified Blockchain Expert.

The plan is to continue to expand the team in terms of human resources, increasing one actuarial consulting team and one technology team every year. The marketing expenses related to client activities shall also increase proportionately to human resource expansion. The event sponsorship shall remain at 4 events per year. The cost amounts are expected to remain the same for subsequent years, allowing for inflation.

Subsequently, the Innovation Lab shall also be established in Singapore, as well as in other markets with high potentials.

2.2.3 Market Potential

The annual revenue of the global insurance market is USD 5 trillion. Generally, the expense ratio of insurance companies is 30%. n-actuarial provides technology solutions to address one-third of these insurance company processes at 50% of the current costs incurred by insurance companies. Hence, n-actuarial's **Total Addressable Market (TAM)** is **USD 250 billion** ($\text{USD 5 trillion} \times 30\% \times \frac{1}{3} \times 50\% = \text{USD 250 billion}$).

The majority market focus of n-actuarial is Asia as 95% of the businesses came from Asia. The Asia insurance market counts for 30% of the global insurance revenue. n-actuarial's **Serviceable Addressable Market (SAM)** is **USD 75 billion** ($\text{USD 250 billion} \times 30\% = \text{USD 75 billion}$).

The current market share of n-actuarial is 2% among the Asia market. n-actuarial's **Serviceable Obtainable Market (SOM)** is **USD 1.5 billion** ($\text{USD 75 billion} \times 2\% = \text{USD 1.5 billion}$).

Given the current annual revenue of n-actuarial is USD 500,000 as at 30th June 2020, business transformation is essential for n-actuarial to reach the huge potential market.

2.2.4 Revenue Model

The revenue model shall be as follows:

Product	Entry Point Customer i.e. Consulting Service (Per Service Per Client Project)	Innovation Lab (Per Development Project)	Technology Solution (Per Implementation Project)
Revenue	USD 20,000	USD 5,000	USD 200,000
Operating Expenses (excluding general overheads)	USD 10,000	USD 40,000	USD 40,000
Profit	USD 10,000	(USD 35,000)	USD 160,000

Consulting services remain a profitable business, however, the expected revenue is lower, hence the profit per client or per project is low. Continuing to attract these entry point customers for consulting services shall also contribute to the losses of the Innovation Lab. The average revenue for consulting work is assumed to be USD 20,000 per client project, with a 50% profit margin (the operating expenses is assumed to be USD 10,000 per client project, according to the cost estimates in Section 2.2.1 Innovation Lab with 24 client projects per year costing USD 240,000 of total annual salary).

To attract clients into the Innovation Lab, the pricing is deliberately kept low, at an average level of USD 5,000, with the objective to avoid costs being an objection to the Innovation Lab. This enables the focus on developing a technology solution for an actual problem faced by many insurance companies. The development cost is assumed to be USD 40,000 per solution (this is based on the cost estimates in Section 2.2.1 Innovation Lab with 6 development/technology projects per year).

Upon successful development, losses can be recouped by implementing technology solutions to other insurance companies, at an average revenue of USD 200,000 per implementation, with the same cost structure as the development projects. For each solution developed in our Innovation Lab, there shall be 3 implementation projects per year over the next 3 years.

2.3 Financial Projection

The starting point of the financial projection is the existing business based on the latest audited financial position as at 30th June 2020. The revenues, expenses and taxes are projected to arrive at the net profit from which we derive the capital injection required as well as the key results, using a discounted cash flow methodology.

The financial projections are performed in USD as the majority of n-actuarial's existing business and growth potentials do not originate from Malaysia, despite n-actuarial being operated primarily in Malaysia.

The financial projections are calculated based on capital injection from Pre-Series A Funding only i.e. USD 0.75 million in the first year, USD 1.75 million in the second year. The subsequent rounds of funding elaborated in Section 2.2.2 Funding are not included in the financial projections.

2.3.1 Existing Business

The existing business achieves revenue of approximately USD 500,000 and an expense of approximately USD 300,000. The expenses are adjusted upwards by USD 150,000 to reflect the situation post-funding where the directors would need to be remunerated by salary instead of only by dividends. Currently, the directors are remunerated entirely by dividends as this is favourable from the tax perspective, benefiting from the combination of profit tax exemption the MSC Malaysia as well as the single-tier dividend Malaysian tax system. It is assumed that the existing business (revenue and expenses) shall continue to grow at 30% p.a.

The existing business has equity of approximately USD 125,000.

2.3.2 Additional Contribution from Business Transformation

The additional contribution from the business transformation is based on the assumptions set out in the revenue model and the cost estimates in the previous sections.

It is assumed that the costs shall be incurred immediately, whilst the revenues shall only fully materialise a year later. This is reflective of the time required to fully execute the business transformation, as well as for each project the time taken for business development as well as delivery of the work.

It is assumed that both the revenues and costs will increase with an inflation rate of 5% per year.

2.3.3 Corporate Tax

Corporate tax is assumed to be 25% of gross profit, starting from the 6th projection year, with the expectation of renewing the Pioneer Status tax incentive in 2021.

2.3.4 Key Results

A capital injection of USD 0.75 million in the first year, and another USD 1.75 million in the second year, amounting to a total of USD 2.5 million is required to enable the business transformation.

Post business transformation, n-actuarial is expected to turn profitable in year 3 (after 2 years of losses) and break-even in year 4. From a dividend perspective, prospective investors shall be able to recoup all the investment outlay by year 5 via dividend distribution.

n-actuarial may require additional capital to invest in Deartime and other opportunities. The capital required to prevent dilution of n-actuarial's shareholding in Deartime amounts to approximately USD 0.5 million when the license is issued by Bank Negara Malaysia (refer to Section 1.3 Investments for further details).

n-actuarial shall achieve the following results:

1. USD 10 million annual revenue by year 4
2. USD 100 million annual revenue by year 9
3. USD 10 million annual net profit by year 5
4. USD 100 million annual net profit by year 13

2.3.5 Valuation

The valuation is derived from the present value of the net profits for the next 10 years using a discounted cash flow projection method, plus the remaining net profit in perpetuity using a Gordon Growth Model, for n-actuarial's organic operations.

This can be formulaically expressed as:

$$\text{Value of n-actuarial's operations} = \sum_{t=0}^{10} \frac{\text{Net Profit}_t}{(1+i)^t} + \frac{\text{Dividend}_{10}}{(i-g) \times (1+i)^{10}}$$

Where:

- Net Profit_t is the projected revenues less projected expenses less projected tax in year t of the business transformation.
- Dividend_{10} is the projected dividend in year 10, it is assumed to be equal to the projected net profit in year 10 i.e. a 100% dividend payout ratio.
- i is the discount rate, 10% p.a.
- g is the dividend growth rate after the 10th year, 5% p.a.

The value of n-actuarial's operations is USD 581 million, post business transformation. The value of n-actuarial existing operations i.e. without the additional contribution from the business transformation, is USD 5 million. The value of the existing operations implies a share price of USD 0.08 per share (n-actuarial has 62,500,000 units of shares issued).

The value of 2% shareholding in Deartime is estimated to be approximately USD 1.5 million (i.e. 2% of USD 100 million less investment of USD 0.5 million).

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The value of 2.5% shareholding in Labuan Insurance Management Services Limited is estimated to be approximately 5% of the value of n-actuarial's operations without the business transformation, based on the share swap agreement, is approximately USD 0.25 million (i.e. 2.5% of USD 10 million).

The total value of n-actuarial, including its operations and investments, is calculated to be USD 583 million, post business transformation. This is equivalent to a share price of USD 9.33 per share, delivering a 117X return.

We have excluded the following upsides from this valuation:

1. n-actuarial's operations may expand beyond what is considered. The parameters used for the valuation are rather conservative.
2. Deartime Berhad's valuation is only based on its Malaysian operations. Deartime Berhad has the potential to grow globally.
3. Additional inorganic investment opportunities that will become available to n-actuarial. This includes a potential 100% acquisition of Intelligent Life Travel LLP valued at approximately USD 4.4 million (i.e. USD 4.7 million less investment of USD 0.3 million) and a potential 20% acquisition of SEY Re Limited valued at USD 13.2 million (i.e. 20% of USD 76 million less investment of USD 2 million).
4. Opportunities from the application of blockchain technology for insurance companies.

A summary of the cash flow projection, in USD million, over the first 10 years is shown as follows:

Year	1	2	3	4	5	6	7	8	9	10
Revenues (A)	0.7	1.4	6.0	15.0	29.2	44.9	62.2	81.2	102.2	125.4
Expenses (B)	1.3	2.9	5.5	9.2	13.4	18.0	23.1	28.9	35.3	42.6
Corporate Tax (C)	0.0	0.0	0.0	0.0	0.0	6.7	9.8	13.1	16.7	20.7
Net Profit (D) = (A) – (B) – (C)	-0.7	-1.6	0.4	5.8	15.8	20.2	29.3	39.3	50.2	62.1

3. Appendix

3.1 Appendix 1: List of Insurance and Insurance Related Clients

Actuarial Business Solutions Company Limited
Actuarial Partners Consulting Sdn Bhd
AmMetLife Insurance Berhad
Aon Benfield
Archipelago Group of Companies
Asia Specialty Insurance Limited
Asia Star Re
AXA Affin Life Insurance Berhad
Blakford Insurance
Cambodia Reinsurance Company
Cambodian National Insurance Company
Chubb Insurance Malaysia Berhad
Crowd Care
Deartime Bhd
EdgeProp Sdn Bhd
Energas Insurance (L) Limited
Etiqa Life Insurance Cambodia Plc
Fi Life
First National Insurance (General) Company Limited
Forte Life Assurance (Cambodia) Plc
Forte Micro Insurance
Hannover ReTakaful B.S.C
Hannover ReTakaful Labuan Branch Family
Hannover ReTakaful Labuan Branch General
Hannover Rueck SE Bahrain Branch
HK Yuetai Life Insurance PLC

Hong Leong Investment Bank Berhad
Insurans Islam TAIB Holdings Sdn Bhd
Intelligent Life Technologies Limited
iSure
KPMG PLT
Labuan Insurance Management Services Limited
LE Risk Management Sdn Bhd
Malaysian Life Reinsurance Group Berhad
Maybank Investment Bank Berhad
MCIS Insurance Berhad
More To Life
NTUC Income Insurance Co-operative Limited
PT Chubb Life Insurance Indonesia
QBE Group Service Pty Ltd
READI Project
RGA Reinsurance Company
RHB Insurance
SAG International Limited
SCOR SE Labuan Branch
Senheng Captive Insurance Pte Ltd
Society of Actuaries (SOA)
Sunway University Sdn Bhd
Team Excellence Consulting Company Limited
U for Life Sdn Bhd
Virginia Surety Company
Weststar Insurance

3.2 Appendix 2: Timeline of Significant Events



3.3 Appendix 3: Similar Companies

Company (HQ)	Profile	Share Price	P/E Ratio	Market Cap	Revenue in 2019	Net Income in 2019
Aon PLC (AON) (London, UK)	Aon plc is a leading global professional services firm providing a broad range of risk, retirement and health solutions.	USD 206.18	22.13	USD 47.72 billion	USD 11.01 billion	USD 1.53 billion
DXC Technology Company (DXC) (Virginia, US)	DXC Technology is the world's leading business transformation company that provides B2B IT services.	USD 18.81	-	USD 4.78 billion	USD 19.58 billion	- USD 5.37 billion
Fidelity National Information Services, Inc (FIS) (Florida, US)	Fidelity National Information Services, Inc. provides financial software, world-class services and global business solutions.	USD 146.87	26.50	USD 91.00 billion	USD 10.33 billion	USD 0.30 billion
Marsh & McLennan Companies, Inc. (MMC) (New York, US)	Marsh & McLennan Companies, Inc. is a global professional services firm with businesses in insurance brokerage, risk management, reinsurance services, talent management, investment advisory, and management consulting.	USD 114.23	23.36	USD 57.86 billion	USD 16.65 billion	USD 1.74 billion
Moody's Corporation (MCO) (New York, US)	Moody's Corporation, is the holding company for Moody's Investors Service (MIS), an American credit rating agency, and Moody's Analytics (MA), an American provider of financial analysis software and services.	USD 293.50	31.78	USD 55.09 billion	USD 4.83 billion	USD 1.42 billion
Willis Towers Watson PLC (WLTW) (London, UK)	Willis Towers Watson Public Limited Company is a global multinational risk management, insurance brokerage and advisory company.	USD 210.08	19.10	USD 27.07 billion	USD 9.04 billion	USD 1.04 billion