



BERMUDA MONETARY AUTHORITY

GUIDANCE NOTE

Insurance Regulatory Sandbox and Innovation Hub

SEPTEMBER 2018

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INTRODUCTION

1. This Guidance Note sets out the Bermuda Monetary Authority's (Authority or BMA) expectations for its two parallel innovation tracks – the insurance regulatory sandbox (Sandbox) and Innovation Hub. Bermuda has been at the forefront of providing innovative solutions in the insurance¹, Insurance Linked Securities (ILS) and captive markets. This has seen Bermuda grow into a leading and well-respected insurance financial centre. From a jurisdiction perspective, the Bermuda market has both the largest ILS and captive sectors in the world and contains one of the world's largest reinsurance sectors.
2. The Authority recognises the growing importance of disruptive innovation in the insurance and wider financial industry and the critical role that innovation plays in promoting efficiency and enhancing competitiveness in the market.
3. The Authority is committed to the viability of the Bermuda insurance market and, given it is a recognised centre of excellence for innovation that it provides a regulatory environment that appropriately protects policyholders² while at the same time remains conducive to technological innovations. It is to this end that the Authority has launched its Sandbox and Innovation Hub, both initially targeted at insurance technology (insurtech) companies.
4. The Authority has established two parallel innovation tracks to cater to the following:
 - i. Sandbox
For companies that are looking to be subsequently licensed as insurance entities under Section 4 (Regular Insurers) or Section 10 (Insurance Intermediaries) of the Insurance Act of 1978 (the Act).

The Sandbox will allow companies to test new technologies and offer innovative products, services, and delivery mechanisms to a limited number of policyholders (or other clients) in a controlled environment and for a limited period of time. Having reviewed a company's proposal, the BMA would determine the legislative and regulatory requirements that would be modified for its duration within the Sandbox. This will be communicated to the company. The Sandbox will have appropriate safeguards to protect policyholders and counterparties of companies

¹ Unless otherwise indicated the terms "insurer" includes "reinsurer", and "insurance" includes "reinsurance"

² For the purposes of these guidelines, "policyholders", where appropriate, includes "beneficiaries" and "prospective policyholders".

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that participate in Sandbox testing. For transparency, once approved by the Authority, a company will be assigned a Sandbox license in accordance with its business model. The Sandbox license will commence with “I” as an identifier that the company is in the Sandbox (i.e., ILT: Long-Term insurer; IGB: General business insurer; IM: insurance manager; IA: insurance agent; IB: insurance broker.) At the end of a successful Sandbox proof-of-concept, the company may make a “change of class” application to be licensed to existing Classes (i.e., Classes 1, 2, 3, 3A, 3B or 4 if a general business insurer, Classes A, B, C, D or E if a long-term insurer, Special Purpose Insurer, Insurance Manager, broker, agent or salesman) and will be fully subject to the relevant legal and regulatory requirements.

ii. Innovation Hub

Apart from insurtech companies that would qualify for use of the Sandbox, the Authority is keen to promote broader dialogue beyond the occasional queries where an industry participant desires to work closely with the BMA and receive regulatory guidance on standards and expectations related to innovative insurance solutions, including activities that are not directly regulated by the Authority. The Authority has therefore created a working group (BMA Innovation Working Group or BMA IWG) that seeks to act as a platform for exchanging ideas and information. The Innovation Hub may also be used by companies that will eventually apply for entry into the Sandbox when the concept is sufficiently developed; i.e., cases where the company is still developing its thoughts and ideas and not yet prepared for proof-of-concept. In order to promote closer dialogue between BMA IWG and market participants involved in the development of various innovative solutions, the Authority has set up a central point of contact via a dedicated e-mail account.

While there is no charge for casual engagement and questions, which are welcomed, the Innovation Hub will eventually be open to another category of participant (for a fee) where a company or person desires to work closely with the Authority in the development of a product or service. Such a category will require formal acceptance and vetting by the BMA. This process is described later in the paper.

iii. Other Sectors

It is expected that the Sandbox and Innovation Hub will in future, be expanded to include other fintech start-ups more broadly and specifically digital assets

businesses. Information and consultation on this expansion will be through a separate Guidance Note.

EXPECTATIONS

5. The Sandbox will allow companies to test new technologies and offer innovative products and services to a limited number of customers in a controlled environment for a limited period of time. Having reviewed a company's proposal, the BMA would determine the legislative and regulatory requirements that would be modified for the duration of the Sandbox testing. Ultimately, the Sandbox will have appropriate safeguards to protect the customers that participate in the Sandbox testing. The purpose of these guidelines is to set out the objectives and principles of the Sandbox and provide guidance to companies on the application and approval process.
6. The Authority will utilise experiences arising from the Sandbox and Innovation Hub to ensure that its framework for existing Classes remains up-to-date. The goal is to use the lessons learned to update the BMA's framework when required to avoid unnecessary discouragement of innovation while maintaining adequate policyholder protection. This will allow both existing licensees and those that graduate from the Sandbox to operate in a modern regulatory environment that is both robust and pragmatic.
7. A start-up is a typical candidate for the Sandbox. However, while the Sandbox is also available for existing insurance licensees, such candidates will be encouraged to conduct the proof-of-concept using a separately incorporated company (subsidiary or joint venture). This subsidiary or Joint Venture Company will receive the Sandbox licence. The separation is to minimise potential contagion.
8. The expected benefits of the Sandbox and Innovation Hub include:
 - i. Providing a safe and transparent environment for companies to test their innovations and/or clarify regulatory requirements before seeking formal authorisation and going to the market.
 - ii. Giving the Authority the opportunity to work together with the company to ensure that appropriate safeguards are incorporated in new products, services and delivery mechanisms before they are released to the market.

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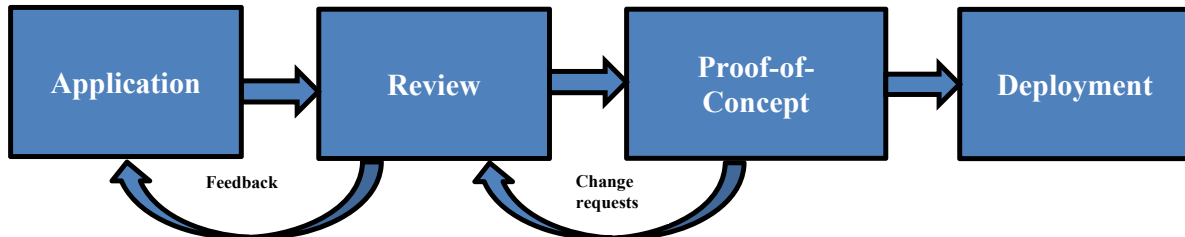
- iii. Increasing efficiency by reducing the amount of time and cost it takes for innovative products, services and delivery mechanisms to reach the market.
 - iv. Increasing innovators' access to or improving the terms of, external funding by eliminating or reducing the cost of regulatory uncertainty for start-ups.
9. All the above will ultimately benefit the policyholder by enhancing competitiveness which will lead to the provision of a wider range of products, services and delivery mechanisms at a lower cost, while safeguarding their interests through appropriate risk mitigation. Policyholder protection is of utmost importance to the Authority, and therefore will be the overarching consideration throughout the company's participation in the Sandbox (and/or the Innovation Hub as applicable) as outlined in the guidelines and eligibility criteria in the following sections.
10. The below sections will outline the criteria and the application process for interested parties, as well as some use case examples to serve as further guidance to the market.
11. While the Authority has implemented a formalised application and monitoring process for companies who wish to operate within the Sandbox, the Authority wishes to emphasise its goal of having a balanced approach. Application of the regulations and the Authority's speed-to-market response should not hamper entrepreneurial creativity and innovation.
12. The use cases outlined in [Appendix III](#) are for illustrative purposes only and do not constitute an exhaustive list of possible scenarios that the Authority will consider. It should also be noted that any scenario in this list should not be considered automatically approved unless the Authority deems that the overarching fit and proper criteria are met, subject further to the eligibility criteria outlined in the next section.
13. Companies registered in the Sandbox will be required to conduct business in a prudent manner, including compliance with provisions of the law pertaining to anti-money laundering and anti-financing of terrorism as provided in the Proceeds of Crime Act 1997, the Anti-Terrorism (Financial and Other Measures) Act 2004, the Proceeds of Crime (Anti-Money Laundering and Anti-Terrorist Financing) Regulations 2008 and any other international sanctions in force in Bermuda.
14. A list of the companies approved to operate under the Sandbox will be posted on the BMA website for transparency to the public.

SANDBOX ELIGIBILITY CRITERIA

15. The company should have a clear understanding of the principles and objectives of the Sandbox. The activity to be undertaken in the Sandbox must be well-defined with a definitive duration as well as associated safeguards to contain any consequences of failure. The Sandbox will not be allowed to be used as a means of circumventing legal and regulatory requirements or to benefit from regulatory arbitrage.
16. The criteria that the Authority will use in evaluating the company's eligibility for participation in the Sandbox includes:
 - i. The proposed product, service or business model should be new or use existing technology in a different way. The company should demonstrate upon application that the solution it is offering is innovative or significantly different from existing solutions already in the market (i.e. unique).
 - ii. The company should have conducted research and due diligence on the proposed product or service, understand the applicable regulations and have the appropriate risk mitigation plans in place. Through the initial research conducted, the company should be able to demonstrate clear benefits of the proposed product or service to the policyholder or industry.
 - iii. The company should clearly define its objective for testing the expected outcomes of the Sandbox proof-of-concept stage and be committed to reporting to the BMA as agreed for the duration of the testing.
 - iv. The company should demonstrate its understanding and assessment of associated risks and their mitigation. Of paramount importance is ensuring that policyholders and counterparties of companies involved in the testing phase are adequately protected against loss. The company should have a well-defined exit or transition strategy in case the testing is unsuccessful or discontinued.
 - v. The company should have the intention, ability and resources to deploy the proposed product, service or distribution channel upon successful testing and exit from the Sandbox. This should include demonstrating the ability to meet the applicable legal and regulatory requirements which will come into effect once the company exits the Sandbox.

APPLICATION AND APPROVAL PROCESS

17. The diagram below depicts the Sandbox application and approval process:



- i. **Application:** The Company applying for use of the Sandbox will verify that it satisfies the eligibility criteria outlined in paragraphs 15 and 16 and then submit an application to the Authority, together with the requisite fee of \$6,180. See [Appendix I](#) for a guideline on the minimal content of the application. The submission should be e-mailed to IWG@bma.bm with the subject “Insurance Regulatory Sandbox”, and hard copies delivered to the **Licensing and Authorisations Department, (Insurance Regulatory Sandbox), BMA House, 43 Victoria Street, Hamilton HM12.**
- ii. **Review:** Applications will be reviewed by the Assessment and Licensing Committee for Sandbox (ALC or the Committee), which is composed of senior management from the Licensing & Authorisations, Fintech, Insurance Supervision, Actuarial and Anti-Money Laundering Departments within the Authority. The Committee convenes once a week on Friday mornings at 9:00 a.m., to review the applications presented for consideration, in order to reach consensus on whether to approve, defer or decline the applications for licensing. Applicants will be informed of the ALC’s decision, as soon as possible subsequent to the meeting, followed by a formal letter from the Authority confirming the same.
The ALC will review the application and, if it is acceptable, advise the company of the legislative and regulatory requirements that will apply during the testing period. Refer to [Appendix II](#) for examples of the legislative and regulatory requirements that the Authority would consider modifying during the Sandbox period. Aside from provisions that are modified, comparable legislative and regulatory requirements for insurance captives (Class 1 or Class A), insurance managers, insurance brokers and insurance agents would apply, respectively. The company

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will propose in its application, and the Authority will determine, the various conditions such as the duration, testing parameters, safeguards and reporting requirements. Where appropriate, a more robust regulatory standard than that applicable to captives may be applied. The Authority will apply the proportionality principle and consider each application on a case-by-case basis.

The company may need to make adjustments to the application for resubmission after discussion with the Authority. Companies should typically expect the Authority to respond within **two weeks** of the initial contact, to make further information requests or to ask questions prior to the scheduled ALC meeting. See application guidelines below for additional information.

- iii. **Proof-of-Concept:** Upon final approval by the Authority, the company will embark on the proof-of-concept stage based on agreed-upon parameters. For the purpose of the Sandbox, proof-of-concept includes concept testing, prototyping and pilot launch. The Authority will assign a Principal Contact (BMA staff member) to assist the company through the process. The company will engage with the Principal Contact in accordance with the conditions prescribed at the review stage. The proof-of-concept phase will typically be between six and 12 months. Within this period, the company will be required to provide regular updates to the BMA. This can be in a form of written report submission and follow up calls on a monthly basis or on a more appropriate frequency, as proposed by the company and determined by the BMA upon application.

The company must notify its clients that the products, services and delivery mechanisms are operating in a Sandbox and disclose the associated key risks. The company is required to obtain a written acknowledgement from its clients that they have read and understood the risks. The company should also maintain a client complaints log to be made available to the Authority.

Any material changes to agreed parameters during the proof-of-concept phase or requests for extension of testing period will need to be approved by the Authority.

- iv. **Deployment:** Upon completion of the proof-of-concept phase, the company must submit a final report to the Authority on the outcomes of the testing, including client feedback on its products, services and delivery mechanisms. The Authority may reach out to clients for further feedback if said clients have consented to this. After

review of the report, the Authority will then decide whether the company can offer the new solution outside the Sandbox. Upon a “change of class” application, and if approved by the Authority, the company will be issued a licence to operate outside of the Sandbox in accordance with the company’s business model and existing insurance licenses.

EXTENDING OR EXITING THE SANDBOX

18. At the end of the Sandbox period, the company will be subject to the full legislative and regulatory requirements of the respective insurance licences. In the event that the company requires an extension of the Sandbox period, it must apply to the Authority and pay the applicable extension fee, at the latest one month before the expiration of the Sandbox period. The application for an extension should provide reasons for the extension and any relevant supporting documents. The Authority will review the request and respond.
19. There may be instances where the company may decide and apply to exit the Sandbox before completion of the proof-of-concept stage or the Authority may require it to discontinue (see next Section). In both instances, the Authority will require the company at the minimum to fully extinguish all existing and future obligations to its policyholders before exiting the Sandbox. To protect the interest of policyholders, the Authority reserves the right to prescribe further requirements as appropriate to companies who wish to exit before the completion of proof-of-concept stage.
20. Instances, whereby the Authority may choose to discontinue a company’s participation in the Sandbox, include:
 - i. The company breaching a condition(s) agreed upon at the review stage;
 - ii. The Authority is not satisfied with the results of the test scenarios as mutually agreed with the company and deems the solution being offered to be unviable based on these results;
 - iii. The Authority becomes aware of a misrepresentation made by the company at the application stage which makes it ineligible to use the Sandbox; and,

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- iv. The Authority or the company discover a significant flaw during the proof-of-concept stage whereby the risks posed to the policyholders cannot be adequately addressed.

INNOVATION HUB

21. While the process for accepting participants in the Innovation Hub is less formal than the Sandbox, the Authority at a minimum will perform vetting procedures for the Shareholders, Directors and Officers of the applying company. Therefore, the following is required for Innovation Hub applicants:

- i. A comprehensive cover letter e-mailed to IWG@bma.bm, detailing the proposed innovative solutions including the expected regulatory assistance and guidance from the Authority;
- ii. Completed Personal Declaration Form for each individual proposing to have a beneficial interest of 10% or more in the company;
- iii. Completed Personal Declaration Forms for directors and officers; and
- iv. Notarized copies of passports, driver's license and proof of current address for Shareholders, Directors and Officers.

22. The Authority will respond within **two weeks** from the initial point of contact to set up a meeting with the applicant to discuss the proposal.

APPENDIX I

SANDBOX APPLICATION GUIDELINES

Sandbox applications should have the following content³ (the Authority may request additional information that it deems necessary for evaluation), e-mailed to IWG@bma.bm and delivered in 10

³ The Authority acknowledges that all documents required for a comprehensive Sandbox application may not be available at the time of application, or may not be applicable based on the proposed business plan. Applicants are advised to submit all pertinent documents as applicable (in draft form if necessary) to assist the Sandbox licensing review process. In cases where required documentation is not provided, a written explanation for any such omission is required. Applications that do not contain the necessary documents (or justification for omissions) may be deferred or deemed insufficient for review.

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copies for the attention of Licensing and Authorisations (Insurance Regulatory Sandbox), no later than 5:00 p.m. on the relevant Monday in order to be considered by the ALC on the Friday four weeks later. A formal response will be communicated to the applicant after the ALC meeting. Applications received after the aforementioned deadline will not be considered by the ALC until the following week.

1. A cover letter providing an executive summary of the application, that it is an insurance regulatory Sandbox application, and highlighting how the minimum licensing criteria (per the Act for the relevant category of business) would be satisfied;
2. Completed Insurance Regulatory Sandbox Application Form Checklist to aid in reviewing the completeness of the application (available for download in the BMA website);
3. Constitutional documents, i.e. copies of the Memorandum of Association, Certificate of Incorporation or Registration Permit (if applicable and available) or Pre-incorporation forms if not yet incorporated;
4. A business plan, including the following:
 - a. Description of the company and its core business. Include information on the financial standing of the company such as any funds raised from investors if any;
 - b. Applicant information – company name, address, directors' names and details, senior management names and details, and relevant individual contact details;
 - c. Capitalisation amount and source(s) of funding (financial information should be in Bermuda Dollar equivalent);
 - d. Overview of the business strategy and plan, including:
 - i. The roadmap to deploy the products, services and delivery mechanisms on a broader scale once the Sandbox period is completed;
 - ii. The ability of the company to meet the legal and regulatory requirements that will apply upon exit; and
 - iii. Details of any current or past participation in a regulatory Sandbox in another jurisdiction/country.

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- e. Description of the proposed product, service or distribution channel to be offered in the Sandbox, including:
 - i. How the Sandbox eligibility criteria outlined in these guidelines are met;
 - ii. Details of how the product/service or technology applied differs from those already existing in the market;
 - iii. Benefits that the proposed product/service will have and foreseen risks;
 - iv. Details of material third-party technology or service suppliers and outsourcing arrangements;
 - v. Any licenses, patents or copyrights that the company holds in relation to the proposed product/service.

- f. Nature of testing that will be performed during the proof-of-concept stage, including:
 - i. Intended start and end date of the Sandbox (duration);
 - ii. Legal and regulatory requirements that the company requests to be modified for the duration of the Sandbox;
 - iii. Detailed test plan, controls, and scenarios;
 - iv. List of policyholders and counterparties who will be involved, including projected business (e.g. premium and coverage levels, if applicable) and the nature of policyholder protection;
 - v. Critical success factors to monitor and measure progress;
 - vi. Monitoring plan to ensure prompt notification of any breach of Sandbox conditions;
 - vii. Quantification of the maximum loss arising from Sandbox activities (Bermuda Dollars or United States Dollars) and risk mitigation to minimise the impact of the loss on participating policyholders;

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- viii. Intended communication approach to clients and counterparties disclosing participation in the Sandbox and the associated risks;
 - ix. Detailed exit plan for clients in the event the Sandbox is discontinued as well as transition plan after a successful graduation from the Sandbox.
- g. Where available and applicable, copies of letters of intent from both the ceding and/or reinsurance companies with whom the company plans to conduct insurance business;
- h. Any applicant proposing to write direct long-term business (as defined in the Act), undertake insurance manager activities, or insurance broker who intends to place direct long-term business on behalf of policyholders must provide a copy of its Anti-Money Laundering and Anti-Terrorism Financing policies and procedures;
- i. Information in respect of shareholders/owners, including:
- i. Corporate shareholders/owners:
 - 1. Most recent audited financial statements;
 - 2. Copies of regulatory filings, if applicable; and
 - 3. Background information.
 - ii. Individual shareholders/owners:
 - 1. Personal declaration forms (to be completed by the respective individual as opposed to the company representative) and notarized copies of passports, driver's license and proof of current address;
 - 2. Disclosure surrounding fitness and propriety findings;
 - 3. Bank references (for owners of intended insurers to eventually be a commercial Class);

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4. Net worth statements with any foreign currency denominated amounts converted into Bermuda Dollars or United States Dollars equivalent.
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- j. Information on the board of directors, senior management and/or key functionaries, including curriculum vitae;
 - k. Evidence of professional liability insurance coverage (where applicable for intended insurance managers and brokers); and
 - l. Insurance company letters of intent, if insurance agency services are intended.

APPENDIX II

LEGISLATION REQUIREMENT FOR COMPANIES INTENDING TO BE REGISTERED IN THE SANDBOX

	Insurance Act 1978 (IA 1978) Requirements	IA 1978 Reference	<i>Potential for modified application in the Sandbox</i>
1	Capital requirements	Sections 33 and 6D	Yes
2	Principal representative	Section 8	No
3	Approved auditor	Sections 16 and 16A	Yes
4	Approved Loss Reserve Specialist/Actuary	Section 26	Yes
5	Material change	Section 30JA	No
6	Fit and proper and minimum criteria*	Schedule to IA 1978	No
7	Prudential filings	Section 6A	Yes
8	Reportable event	Section 8A	No
9	Fees	Section 14	Yes
10	Shareholder controllers	Sections 30CA to 30EA, and 30J	No
11	Requirement to keep records in Bermuda	Section 18C	No
12	Paid up capital	Section 7	Yes

Note: where a modification is unlikely to be provided, comparable captive requirements (Class 1 or Class A, respectively) will generally apply.

*Includes market conduct and compliance to all relevant AML/ATF and international sanctions in force in Bermuda. As indicated in previous section, these requirements cannot be modified for Sandbox applicants.

APPENDIX III

USE CASE EXAMPLES

Sandbox:

1. An insurer wishes to establish a subsidiary in Bermuda and provide parametric insurance coverage using a smart contract platform or other form of self-executing technology to clients. The Authority's Sandbox would allow the insurer to effectively test the algorithms behind its underwriting or engage with clients to determine how effective the automatic claim payments process is. Certain regulatory requirements could be modified. As a control, the Authority could limit the number of insureds to whom the insurer issues policies or the sums insured.
2. An insured in the United States has procured multiple policies from insurers in Bermuda. A company who wishes to be licensed as an insurance broker or agent has developed a policy management tool to assist insureds in navigating the different policies it currently holds, and which will help streamline the renewal process of those same policies. The Authority's Sandbox could allow the broker to solicit real-time feedback from clients on the platform, with a control being that no renewal could take place until that feedback is received.
3. An insurance start-up wishes to make use of blockchain solutions to provide insurance and reinsurance products to its customers. The Sandbox could facilitate the testing of these solutions by making them available to a limited number of sophisticated customers, who are informed of the potential risks, so as to allow the start-up to learn how the customers most efficiently engage with the blockchain solutions. The start-up, in turn, would share monitoring information and results with the Authority to ensure that the Authority is informed about the latest technologies and whether changes to existing legislative frameworks might be required.
4. An insurer already licensed by the Authority wishes to partner with an insurance innovator to develop a "smart contract" platform that can be used to manage the multiple policies that it issues to a specific client across multiple classes of business. The Sandbox would allow the insurer to test the product and gain feedback from the client, which had been informed of the risks and the mitigation strategies put in place by the Insurer.
5. A global company partners with a technology start-up in developing a blockchain application that it seeks to sell to companies that use captive companies to manage risks. The product aims

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to streamline and simplify the global nature of the captive operations, which usually covers multiple jurisdictions, making a strong case for a distributed ledger solution. The Sandbox will allow the company to test the product on a limited basis to its own affiliates, and the feedback received during the Sandbox tenure will ensure viability for external use for other players.

Innovation Hub:

6. A company has developed a prototype of a policy wording review tool, which it desires to license to Bermuda insurers and reinsurers. The BMA IWG would provide a platform for the company to enter into a dialogue while the company is engaging with interested users and learning more about the kinds of problems those users would like to see the tool address, so as to tailor their innovative solution to the needs of the Bermuda market.
7. An ILS manager partners with a tech start-up to develop a blockchain-based system to replace manual operations and automate the process using smart contracts, to increase payment speed between insurers and investors, particularly in handling trading of cat swaps and bonds for example.
8. An insurtech start-up wishes to develop a global insurance product. The insurtech start-up can partner with an established insurer. Partnering with an established insurer as a joint venture has the benefit of using the insurer's capital and underwriting licence to complement the start-ups' technology offering. The insurer benefits from an alternative route to market, without the need to upgrade or integrate current customer processes, and the start-up can test and refine its offering within a live, highly regulated environment. This route to market benefits the start-up as it can swiftly demonstrate its value, with minimal cost compared to establishing a licenced insurance company.