

CALL FOR EVIDENCE: SPACE INDUSTRY ACT 2018

A call for evidence to inform further policy development of the Space Industry Act 2018 provisions on liability, insurance and charging.

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Call for evidence

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Any enquiries regarding this publication should be sent to us at SpaceflightRegulation@ukspaceagency.bis.gsi.gov.uk.

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General information

Purpose of this call for evidence

The Government is issuing this call for evidence so that it can gather evidence, data and information that will assist in formulating the policy:

- On the exercise of the power under the Space Industry Act 2018 (SIA) to limit a launch vehicle operator's liability to indemnify Government and liability to third parties in respect of launch (both orbital and sub-orbital) from the UK.
- On the approach to setting insurance requirements under the SIA for launch from the UK (both orbital and sub-orbital), operating a spaceport and the provision of range control services in the UK.
- On the approach to charging for the regulatory processes in relation to spaceflight and associated activities regulated under both the SIA and the Outer Space Act 1986 (OSA); launch from the UK (both orbital and sub-orbital), operating a spaceport, the provision of range control services and the in orbit operation of a satellite.

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Respond by: 25 May 2018

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Call for evidence reference: Space Industry Act 2018: liability, insurance and charging

Territorial extent:

This is a UK-wide call for evidence. We would welcome views from all interested parties including those outside of the UK.

How to respond

Your response will be most useful if it is framed in direct response to the questions posed, though further comments and evidence are also welcome.

Please complete the form at Annex A and send your responses to Steve Plant either at the address above or send to the SpaceflightRegulation e-mail address.

Additional copies:

You may make copies of this document without seeking permission. Hard copies and other versions of this document can be made available on request.

Confidentiality and data protection

Information provided in response to this consultation, including personal information, may be subject to publication or disclosure in accordance with the access to information legislation (primarily the Freedom of Information Act 2000, the Data Protection Act 1998 and the Environmental Information Regulations 2004).

If you want information that you provide to be treated as confidential please say so clearly in writing when you send your response to the call for evidence. It would be helpful if you could explain to us why you regard the information you have provided as confidential. If we receive a request for disclosure of the information we will take full account of your explanation, but we cannot give an assurance that confidentiality can be maintained in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded by us as a confidentiality request.

We will summarise all responses and place this summary on the [GOV.UK website](#). This summary will include a list of names or organisations that responded but not people's personal names, addresses or other contact details.

Quality assurance

This call for evidence has been carried out in accordance with the [Government's Consultation Principles](#).

If you have any complaints about the call for evidence process (as opposed to comments about the issues which are the subject of the consultation) please address them to:

Email: beis.bru@beis.gov.uk

Introduction and definitions

1. A key strand of the Government's Industrial Strategy is for the UK to hold a greater share of the commercial spaceflight market, worth an estimated £25 billion over the next 20 years, by developing safe and competitive commercial spaceflight for small satellite launch and sub-orbital flight from the UK.
2. The [Space Industry Act 2018 \(SIA\)](#), which was introduced into Parliament in June 2017 and received Royal Assent on 15 March 2018, establishes the regulatory framework to enable spaceflight and associated activities to take place from the UK.
3. Keen to gather industry views to help inform the policy, Ministers committed to publishing a call for evidence in relation the liability provisions in the SIA shortly after Royal Assent. This call for evidence therefore covers the liability provisions as well as questions relating to the insurance and charging provisions.
4. In this document certain terms are used which have the meanings set out below.
5. The SIA makes provision to regulate all **spaceflight activities**. This encompasses both **sub-orbital** and **space activities**, as defined below.
6. **Sub-orbital activities** encompass the launch (or procurement of launch) (sub-orbital launch), operation and return of a craft capable of operating above the stratosphere, or a balloon capable of reaching the stratosphere carrying crew or passengers.
7. **Space activities** encompass the launch (or procurement of launch) (space launch), operation and return of a space object or aircraft carrying a space object (a carrier aircraft) or outer space activity (including operating a satellite from the ground). **Space object** refers to either an object that will go into Earth orbit or beyond (such as a satellite) or the launch vehicle responsible for putting the object into orbit.
8. **Spacecraft** refers to any craft, balloon or space object as defined above that is used for spaceflight activities. A **launch vehicle** refers to any vehicle used for sub-orbital or space launch including a rocket, spaceplane or balloon or a carrier aircraft carrying any of those vehicles. It does not include a satellite or a carrier aircraft when it is not carrying a spacecraft.
9. The SIA also regulates **associated activities** including the operation of **spaceports** and **range control** functions. Under the SIA, any site from which a spacecraft or carrier aircraft intends to launch is considered a spaceport and must be licensed. A spacecraft will only be allowed to land at a licensed spaceport or a mobile installation at sea.
10. **Horizontal launch spaceport** refers to a spaceport with a runway - likely to be an adapted, existing aerodrome - suitable for launching spaceplanes and carrier aircraft. **Vertical launch spaceport** refers to a site - likely to be a new site - suitable for

launching rockets. Given the fundamentally different requirements, it is unlikely that horizontal and vertical launch spaceports will be co-located but the SIA does not exclude this possibility.

11. We anticipate issuing the following licences under the SIA and the Outer Space Act (1986) (OSA):
 - Launch vehicle operator licence (for space or sub-orbital activities).
 - Satellite operator licence (which would cover the procurement of a UK or overseas launch and/or the in orbit operation of the satellite).
 - Spaceport licence (for space or sub-orbital activities).
 - Range control licence.
12. In this call for evidence, the questions relating to **liability** are relevant to those considering in engaging in launch from the UK. This includes launch for both space and sub-orbital activities.
13. The questions relating to **insurance** are relevant to the new activities to be licensed under the SIA which are: launch from the UK (space and sub-orbital), the operation of a spaceport and the provision of range control services in the UK.¹
14. Finally, the questions on **charging** are relevant to all of the activities to be regulated under the SIA and those currently regulated under the [Outer Space Act 1986](#) (OSA). These include launch from the UK (space and sub-orbital), procurement of a launch by a UK satellite operator on a UK or overseas launch, the operation of a spaceport in the UK, the provision of range control services in the UK and the operation of a satellite in orbit by a UK entity both from the UK and overseas.
15. However, we would welcome responses from interested parties on all aspects of this call regardless of whether you currently engage in, or you intend to engage in, any of the activities outlined above.

¹The purpose of this call is not designed to seek information or evidence with regard to liabilities or insurance for activities currently licensed under the Outer Space Act 1986. The insurance and liability provisions for procuring an overseas launch and the in orbit operation of a satellite are not covered within this call for evidence.

1. Liabilities

Background

What are the liabilities under the SIA?

- 1.1. An important element of the SIA concerns operators' liabilities arising from their spaceflight activity.
- 1.2. Under the UN space treaties, the UK Government is ultimately liable for damage to the persons or property of other states caused by the space activities of its nationals, or caused by such activities carried out from its facilities or territory. This means that another state suffering damage can bring a claim against the UK Government under the UN space treaties. On the ground and to aircraft in flight, the liability is absolute which means that the state bringing the claim would not need to prove fault. In space, the liability is fault based.
- 1.3. In the UK, the UN space treaties are currently implemented by way of the OSA. As such, under the OSA, space activities are licensed and operators are required to comply with conditions including the requirement that the operator indemnifies the Government for claims brought against it.
- 1.4. In line with the provisions in the OSA, **section 36** of the SIA places a liability on an operator carrying on spaceflight activities to indemnify the Government or listed person or body for any claims brought against them for loss or damage caused by those activities. The bodies listed in this section are ones that may be carrying out functions on behalf of the regulator or will be appointed as a regulator.
- 1.5. Furthermore, in regulating spaceflight activities carried out from the UK, the SIA goes further than the OSA with regard to its liability provisions in order to provide the general public with easy recourse to compensation. As such, **section 34** of the SIA places a strict liability on an operator carrying on spaceflight activities in the UK. This means that the uninvolved general public in the UK suffering injury or damage can bring a claim against an operator without having to prove fault.
- 1.6. This provision was included in the SIA because the Government wanted to ensure that the general public suffering injury or damage in the UK are entitled to the same compensation (without having to prove fault) as foreign nationals are entitled to under the UN Convention on International Liability for Damage Caused by Space Objects, the "[Liability Convention](#)". The Liability Convention provides foreign nationals with the ability (via their own Government) to seek compensation (from the UK Government as

the responsible launching state) for damage or loss without having to prove fault (where it occurs on the ground or to aircraft in flight).²

- 1.7. This strict liability would apply to any injury or damage caused to persons (regardless of nationality) or property in the UK or its territorial waters or to an aircraft in flight or persons and property on board such aircraft over the UK or its territorial waters. It applies to damage that is caused by a craft or space object used by the operator for spaceflight activities.
- 1.8. The definition of “spaceflight activities” in the SIA does not include the operation of spaceports or the provision of range control services. These are “associated activities”. Therefore the SIA does not impose a strict liability under section 34 on persons operating spaceports or providers of range control services or require them to indemnify the Government for claims brought against it.
- 1.9. This is because it is considered that it is likely to be the activities of the operator of a spacecraft that would cause injury or damage to the general public. Furthermore, there may be multiple parties involved in a spaceflight activity and by making the operator of a spacecraft liable, this provides third parties sustaining injury and damage with clarity regarding who they can bring a claim against without needing to prove fault. This does not however prevent anyone from bringing a claim against a person operating a spaceport or providing range control services and proving fault.

What are the powers in the SIA to limit liability?

- 1.10. To provide Government with the flexibility to ensure the spaceflight sector can grow, the SIA contains powers to limit, via regulations and in licence conditions, the two types of operator liability identified above.
- 1.11. In **section 12(2)** of the SIA there is a power to specify a limit on an operator’s liability to indemnify the UK Government under section 36 of the SIA (Obligation to indemnify government etc against claims). This limit would be set out in an operator’s licence.
- 1.12. In **section 34(5)** there is a power to make regulations to limit the amount of liability of an operator for injury or damage to third parties. This limit would be set out in an operator’s licence. The limit on this liability can be restricted to injury and damage sustained by prescribed persons or in prescribed circumstances. The intention is that the regulations will prescribe the uninvolved general public.
- 1.13. The Government is aware that operators have previously raised concerns that an unlimited liability could be a barrier to operating in the space industry. The Government is also aware that other launching nations do limit liabilities or provide a state guarantee for the current type of launch activities that take place from their territory and that this might effect the competitiveness of the UK’s space market. These powers can be therefore be exercised to address these concerns if it is deemed necessary and appropriate to do so.

² The strict liability in the SIA applies to any person in the UK who suffers injury or damage. It therefore applies to both UK nationals and foreign nationals. Foreign nationals could choose to bring a claim against the UK Government via their own Government via the Liability Convention or bring a claim against the operator under section 34 of the SIA. The operator would be liable to indemnify the UK Government for any claims brought against the UK Government by either UK nationals or foreign nationals regardless of the basis of the claim.

- 1.14. The requirement to impose a limit on the indemnity to the Government for activities licensed under the OSA was imposed following an amendment made by the **Deregulation Act 2015**. For the activities of procuring an overseas launch (purchasing space on a launch vehicle for a satellite) and the in orbit operation of a satellite, the limit on an operator's indemnity is set out in a licence. The UK Space Agency currently limits liability for claims against Government to €60m for standard missions launching overseas.
- 1.15. This is the only liability that is limited under the OSA. As launch activity currently licensed under the OSA takes place overseas, the Government's most likely liability currently is to pay compensation for injury or damage to foreign States or their nationals that arises under the UN Liability Convention.
- 1.16. Once the SIA comes into force, the procurement of an overseas launch and the operation of a space object by a UK entity based overseas will continue to be regulated by the OSA and benefit from a limited liability to indemnify the UK Government.
- 1.17. Where a UK entity procures a UK launch or operates a satellite from the UK, this will be regulated under the SIA when it comes into force. It is the Government's intention to maintain the policy on limiting the liability to indemnify the Government in licences for these activities when carried out from the UK by exercising the power under section 12(2). This reflects the policy under the OSA that has been consulted on with industry and scrutinised by Parliament. The operator's indemnity to the Government will continue to be set out in a licence condition.

Purpose of the call for evidence

- 1.18. Launch (both to orbit and sub-orbital) from the UK is a completely new activity and given the risks involved, further work is being undertaken on assessing the merits of limiting both types of liability (liability to indemnify Government and the liability to indemnify the general public).
- 1.19. Within this context, the Government is seeking views and evidence from those operators considering launch from the UK, and other interested parties, on the approach to liabilities under the SIA. Any views and evidence submitted will be considered as part of the work currently being undertaken on the Government's approach to insurance (more detail below) and liability requirements for launch from the UK.
- 1.20. Furthermore, the SIA provides a power in **section 13** and **schedule 1, paragraph 36** to include conditions within licences that could mandate the use in contracts of cross waivers of liability for injury or damage from carrying out the licensed activities. This could mean that all parties involved in a spaceflight activity would have to bear their own losses. This call for evidence also seeks views on this approach.
- 1.21. Whilst the work in this area is ongoing, the launch vehicle operator for both orbital and sub-orbital activities from the UK will hold an unlimited liability to indemnify Government and third parties.
- 1.22. If following this work, a limit on either type of the liability for various launch vehicle operators engaging in launch from the UK is deemed appropriate, a consultation will

take place which will include publishing any Government proposals and draft regulations.

- 1.23. Any Government proposals would be subject to internal approvals and compliance with any relevant trading rules, whether these are EU State Aid rules or other rules applying post-EU exit. These approvals would need to be obtained prior to the implementation of any proposals.
- 1.24. This call for evidence also contains questions relating to third party liability insurance requirements for launch from the UK. Government is considering the option of using maximum probable loss (MPL) as a way of setting the insurance amount for launch from the UK. The US and Australia adopt this approach.³ An MPL approach would seek to calculate the amount of potential third party liability claims that an operator could incur in a realistically probable scenario. See page 13 for further details.

Call for evidence questions

- 1.25. In responding to this call for evidence, we would welcome your views in respect of the following questions. Please complete the response form at Annex A. To provide support for your response to the following questions, please provide an explanation and evidence.

Question no.	Question
Questions about liability to indemnify Government	
1.	What impact would an unlimited liability to indemnify Government have on launch activities in the UK? In answering this question, if applicable, please comment on the impact you consider it would have on your business and also the wider market.
2.	What impact would a limit on an operator's liability to indemnify Government have on the operation of a launch business from the UK?
Questions about liability to indemnify claimants	
3.	What impact would an unlimited liability to indemnify claimants (third parties) have on launch activities in the UK? In answering this question, if applicable, please comment on the impact you consider it would have on your business and the wider market.
4.	What impact would a limit on an operator's liability to indemnify third parties have on the operation of a launch business from the UK?
Questions about both the liability to indemnify Government and claimants	
5.	Does holding an unlimited liability to indemnify Government and claimants differ from other liabilities held in the normal course of business? If so, how does it differ?

³ <https://ablis.business.gov.au/service/ag/maximum-probable-loss-methodology/31339>
https://www.faa.gov/about/office_org/headquarters_offices/ast/launch_license/mpl_values/

6.	Would limiting one type of liability (either the liability to indemnify Government or the liability to indemnify claimants) have a bigger impact than limiting the other?
7.	Government is considering the approach of using a maximum probable loss (MPL) calculation to set the minimum third party liability insurance requirement for launch from the UK. What are your views on using the same type of calculation to set a limit on either the liability to indemnify Government or the liability to indemnify claimants?
8.	Are there other mechanisms or calculations that could be used to set a limit on either the operator's liability to indemnify Government or their liability to indemnify claimants if this was deemed appropriate?
9.	What are your views on the approach of setting the liability limit to indemnify Government and to indemnify claimants at the same amount for all launches taking place from the UK? An alternative approach could be that liability limits are varied depending on the type of launch taking place from the UK or based on the risks involved in each launch, what are your views on this? Would certain launch activities require higher limits / unlimited liability? Why would this be the case?
10.	Are you aware of liability regimes in relation to spaceflight activities in other countries? What is your view of their requirements in relation to liabilities?
<u>Cross waivers of liability</u>	
11.	<p>The SIA provides a power to include conditions within licences that could mandate the use in contracts of cross waivers of liability for injury or damage from carrying out the licensed activities. This could mean that all parties involved in a spaceflight activity would have to bear their own losses.</p> <p>Are you familiar with such cross waivers? Do you consider them to be standard within the space and launch industry? Do you have any views or comments on such an approach?</p>
	Do you wish to provide any other comments in respect of liabilities for UK launch?

2. Insurance

Background

- 2.1. As spaceflight and associated activities are risky in nature it is important that those suffering damage or loss as a consequence can be compensated. As highlighted above, the Government may be required to pay compensation for damage or loss caused as a result of the spaceflight activities of its nationals under international treaties. Insurance therefore provides an important resource to meet potential claims. As such, section 38 of the SIA provides a power to make regulations to require those engaging in spaceflight and associated activities to be insured in respect of specified risks and liabilities.
- 2.2. Currently under the OSA a licensee is required to demonstrate that they hold third party liability insurance for the activities licensed under that Act before a licence is issued. These activities are where a UK entity procures a launch (purchases space on a launch vehicle for its satellite) and the in orbit operation of a satellite. The requirement to obtain third party liability insurance for these activities carried out under both the OSA and the SIA will continue.

Purpose of the call for evidence

- 2.3. The Government also intends that launch vehicle operators engaging in launch from the UK would be required via regulations and licence conditions, to obtain and maintain third party liability insurance. To calculate the amount required, one of the options that Government is considering is using a Maximum Probable Loss (MPL) assessment to determine the insurance amount. This is a calculation that is used in the US and Australia.⁴ An MPL approach would seek to calculate the amount of potential third party liability claims that an operator could incur in a realistically probable scenario. Within this call for evidence we are seeking views in relation to this approach but also exploring whether there are better alternatives to calculate third party liability insurance amounts.
- 2.4. Government is also aware of concerns raised in relation to the availability and affordability of third party liability insurance for launch from the UK. This call for evidence therefore seeks views on this issue.
- 2.5. Furthermore, for launch from the UK, there may be other types of insurance that will also be required by regulations and licence conditions. Spaceport operators and range

⁴ <https://ablis.business.gov.au/service/ag/maximum-probable-loss-methodology/31339>
https://www.faa.gov/about/office_org/headquarters_offices/ast/launch_license/mpl_values/

control service providers may also be required by regulations and licence conditions to obtain and maintain insurance (for example, infrastructure insurance, pre-launch insurance). This call for evidence therefore seeks views on what other types of insurance may be necessary for spaceflight and associated activities carried out from the UK.

- 2.6. Finally, section 38 allows a regulator to accept an alternative financial security instead of traditional insurance. Therefore this call for evidence seeks views on possible alternative securities.
- 2.7. Within this context, the Government is seeking views, information and evidence from interested persons including operators intending to engage in launch from the UK, potential spaceport operators and range control service providers in relation to insurance requirements under the SIA.

Call for evidence questions

- 2.8. In responding to this call for evidence, we would welcome your views in respect of the following questions. Please complete the response form at Annex A. To provide support for your response to the following questions, please provide an explanation and evidence.

Question no.	Question
General questions about insurance for launch taking place from the UK	
12.	What are your views on the availability and affordability of third party liability insurance for UK launch (both orbital and sub-orbital), assuming an unlimited liability?
13.	One of the options Government is considering is using a maximum probable loss (MPL) calculation for setting the amount of third party liability insurance for UK launch (both orbital and sub-orbital). What are your views on such an approach? Please set out the advantages and disadvantages of using such a calculation and provide evidence in support of your answer.
14.	There are a number of different approaches used to calculate the MPL in countries where the method is currently used (for example the Australian approach differs from the US). Do you have any views on the most suitable approach? Please provide an explanation and evidence in support of your answer.
15.	Using an MPL calculation would mean that the minimum liability insurance amounts would be set on a case by case basis. Would this encourage operators to minimise the risks associated with UK launch (both orbital and sub-orbital) in order to reduce the amount of third party liability insurance that is required?
16.	How much does the amount of third party liability insurance required affect the premium of the policy? Are there other factors that would have more of an impact on the policy premium than the amount of insurance required? If so, what are these?
17.	If the insurance requirement was for a launch vehicle operator engaging in launch from the UK to take out the maximum amount of third party liability insurance cover available on the market, what is the maximum that they could obtain?

18.	Do you know of any other mechanisms or calculations that could be used to set the third party liability insurance amount for launch from the UK? Are there any precedents for use of these? Please set out the advantages and disadvantages of using a different approach and provide evidence in support of your answer.
19.	What are the other kinds of insurance that a launch vehicle operator engaging in launch from the UK would obtain for launch? For example insurance to cover first and second parties?
20.	What other risks would a launch vehicle operator engaging in UK launch insure against?
21.	How do the premiums of these policies compare with the premiums for third party liability cover?
22.	Do you consider that holding an unlimited liability to indemnify Government and third parties affects the availability of insurance for UK launch (both orbital and sub-orbital)?
Specific questions surrounding the insurance costs associated with launch from the UK	
23.	If you are considering engaging in launch from the UK, what proportion of your overall anticipated operational costs relate to insurance premiums for third party liability insurance?
24.	If you have not yet sought an insurance quote for current or proposed operations, what have you estimated your third party liability insurance costs to be (as a percentage of operational costs)? What methodology did you use to reach this estimate?
25.	What level of third party liability cover would this provide?
26.	What proportion of your overall anticipated costs relate to other types of insurance (not third party liability insurance) for UK launch activities? What type of insurance would this be?
Questions relating to other operators: Spaceports	
27.	What are the risks that are specific to operating a spaceport (for example, risks to equipment, infrastructure, and satellites when at the spaceport)? Which of these risks would be covered by insurance and why?
28.	Are there any risks that that a spaceport operator would expect another party involved in launch activities to insure against (for example pre-launch insurance to cover satellites when at the spaceport)?
29.	What other general or individual risks would a spaceport seek to insure against?
30.	Is such insurance available?
31.	If you are planning to engage in operating a spaceport from the UK, what proportion of your overall anticipated operational costs relate to insurance premiums for the operation of a spaceport?
32.	If you have not yet sought an insurance quote for current or proposed operations, what have you estimated your insurance costs to be (as a percentage of operational costs)?
33.	What level of cover would this provide?
Questions relating to other operators: Range Control Service Providers	
34.	What are the risks a range control service provider would insure against in the provision of their services?

35.	Are there any risks that a range control service provider would expect another party involved in launch activities to insure against?
36.	What other risks would a range service provider seek to insure against?
37.	Is such insurance available?
38.	If you are planning on engaging in the provision of range control services from the UK, what proportion of the overall anticipated operational costs in relation to the operation of the range relate to insurance premiums?
39.	If you have not yet sought an insurance quote for current or proposed operations, what have you estimated your insurance costs to be (as a percentage of operational costs)?
40.	What level of cover would this provide?
General questions on securities as alternatives to traditional insurance	
41.	Section 38 of the SIA provides a power for the regulator to accept securities that satisfy prescribed conditions as insurance. What are your views on the exercise of this power? What are the advantages or disadvantages of accepting securities as insurance?
42.	What type of securities would be appropriate for the purposes of section 38?
43.	What conditions should a security have to satisfy to be acceptable as insurance?
44.	Would you be likely to use a security instead of purchasing traditional insurance?
	Do you wish to provide any other comments in respect of insurance for spaceflight activities carried out from the UK?

3. Charging

Background

- 3.1. Section 62 of the SIA gives effect to Schedule 11 which provides a power for regulators and appointed persons (referred to in the SIA as the charging authority) to charge a fee for carrying out their duties.
- 3.2. Section 4(3)(d) of the OSA has been amended by paragraph 10 of Schedule 12 (minor and consequential amendments) of the SIA so that charging schemes can be made under the OSA. This is to ensure the same charging regime applies to both licences for space activities issued under the OSA and the SIA to ensure consistency.

Purpose of the call for evidence

- 3.3. The power to make charging schemes is necessary in both Acts as licensing and the subsequent monitoring of spaceflight and associated activities outlined in the SIA and those activities licensed under the OSA will incur a cost to the regulator. Under the guidance in Managing Public Money (the HM Treasury guidance on how to handle public funds), the costs of providing such services should be fully recovered from users of the service.
- 3.4. Therefore, the Government intends to put new charging schemes in place under both the SIA and the OSA which will set out the mechanisms for charging. The charging schemes will cover fees charged for considering and processing an application, issuing a licence and ongoing monitoring and compliance costs post-issue of a licence. The schemes will set out the charges payable by an applicant before a licence is issued. Different schemes will apply to different types of missions and applications.
- 3.5. The charging schemes may be based on a mixture of fixed fees, hourly rates and the pass on of third party costs or disbursements and be recovered at specific milestones during the licensing process. For example a fixed fee to process a licensing application may be recovered at the start of an application. This fixed fee could also be spread over certain milestones in the licensing process.
- 3.6. Third party costs and the hourly rates of technical assessors and inspectors for example could be invoiced periodically as and when they are incurred or, alternatively, at the end of the licensing process, depending on the charges incurred. The aim of this approach is to ensure that as far as is possible, a charge is recoverable for work undertaken on a

licence application, whether or not it is discontinued. However, part of the fixed fee could be payable upfront before any work begins on an application.

- 3.7. The [Policy Scoping Notes](#) that accompanied the SIA sets out further detail with regard to this.
- 3.8 Within this context, the UK Government is seeking views, information and evidence from interested persons including operators intending to engage in launch from the UK, potential spaceport operators, range control service providers, and satellite operators in relation to the approach to charging schemes for those activities licensed under the SIA and the OSA.

Call for evidence questions

- 3.9 In responding to this call for evidence, we would welcome your views in respect of the following questions. Please complete the response form at Annex A. To provide support for your response to the following questions, please provide an explanation and evidence.

Question no.	Question
General questions on the approach to charging	
45.	Fees could be set at specific milestones or charging points which could be linked to specific phases / review points within the licensing process. To what extent do you agree with this approach?
46.	What are your views on charges being set on the basis of time spent on a licensing application or monitoring activity, with the use of hourly rates?
47.	What are your views with regard to charges being set on the basis of a fixed fee (where the costs are equally apportioned between a number of applicants for a particular activity for example, the licensing of the operation of a geostationary satellite in orbit)?
48.	Charging schemes could be made up of a mixture of fixed fees, hourly rates and the pass on of third party costs depending on the nature of the work to be undertaken by the regulator in each case. To what extent do you agree with this approach?
Questions relating to charging regimes in other jurisdictions	
49.	Have you engaged in, or do you have knowledge of, spaceflight or associated activities (launch activities (orbital or sub-orbital), operation of a spaceport, provision of range control services, operation of a satellite in orbit) in another country? If so, which country was this?
50.	What type of activity was this?
51.	Were you charged a fee or are you aware of a fee for the licensing of that activity?
52.	If so, what is the level of that fee and how is it calculated?
53.	Were you charged or are you aware of charges for any other approvals that are required for those activities to be carried out from that country (for example spectrum costs)? If so, what are these costs and what is the level of the fee?

Questions relating to costs of proposed activities	
54.	What have you budgeted for the total cost of carrying out the activity, including set-up costs and on-going operational costs?
55.	In your current business plans, what have you budgeted for licensing costs (for obtaining a licence under either the SIA or the OSA)?
56.	Please provide a breakdown of what this budgeted amount includes?
57.	What would this licensing cost be as a proportion of your overall costs?
58.	In your current business plans, what have you budgeted for the costs of other approvals that are required in order for you to carry out the activity (for example, spectrum costs / export licensing costs etc.)?
59.	What would this cost be as a proportion of your overall costs?
	Do you wish to provide any other comments in respect of charging?

