Japan Science and Technology Agency (JST) and   
Agency for Science, Technology and Research (A\*STAR)  
 Joint Call for Proposals on *“Quantum”*

Joint Application Form  
(To be jointly submitted by Japan and Singapore applicants to JST and A\*STAR respectively)

# Summary of Research Project

|  |  |
| --- | --- |
| **Proposal Title**  (in English)**:** |  |
| **Subtopics**  (Check the boxes the project aligns. Multiple check is allowed.) | Quantum computers and quantum simulations (inc. quantum-classical hybrid solutions, quantum software, and quantum computing)  Quantum info-communications (inc. quantum internet, quantum memory, encrypted communication, and quantum information theory)  Quantum sensing (inc. solid-state quantum sensors and quantum optical sensors)  Others ( ) |
| **Duration of Project**  (in months): |  |
| **Budget Requested:** | Japan Research Team  Direct Expenses (Indirect Expenses are added in addition to the Direct Expenses.) |
| JPY |
| Singapore Research Team (including 30% Indirect Expenses) |
| SGD |

# PROPOSAL DETAILS

## INSTRUCTIONS

**This document contains nine (9) separate parts.**

**Please complete ALL parts.**

***Delete the notes that are in blue italic texts in this form before your submission. Use 10.5-point font size.***

|  |  |
| --- | --- |
| **PART** | **DESCRIPTION** |
| **I.** | **General Information** |
| **II.** | **Scientific Abstract of the Proposal** |
| **III.** | **Research Topic and Work Plan** |
| **IV.** | **Budget Description (for Japan side)** |
| **V.** | **Budget Description (for Singapore side)** |
| **VI.** | **Work Contribution** |
| **VII.** | **Curriculum Vitae** |
| **VIII.** | **Acknowledgment** |
| **IX.** | **Appendices (for Singapore side only)** |

### For Japan-based co-applicants:

Japan-based co-applicants should electronically submit their application forms to JST by1:00 PM (Japanese Standard Time) on 30th July (Wednesday) 2025, via the online application system,e-Rad (<https://www.e-rad.go.jp/>).

### For Singapore-based co-applicants:

Singapore-based co-applicants should electronically submit their application forms via iGrants by 12:00 PM (Singapore Standard Time) on 30th July (Wednesday) 2025 via <https://igrants-app.a-star.edu.sg/>

All information is treated in confidence. The information submitted to e-Rad and iGrants is furnished to the JST and A\*STAR Group with the understanding that it shall be used or disclosed for evaluation, reference and reporting purposes, respectively. To find out more about how the JST and A\*STAR Group uses your personal data, please refer to our privacy policy/statement, respectively.

JST: <https://www.jst.go.jp/EN/privacy.html> A\*STAR: <https://www.a-star.edu.sg/privacy-statement>

## DETAILS OF PUBLIC SECTOR RESEARCH PERFORMERS AND COLLABORATORS

The submission of every joint proposal must involve one Singapore-based and one Japan-based public sector research performer. Singapore-based and Japan-based collaborator’s involvements are optional. Please include the details of all **PI(s)**, **Co-PI(s)/Co-I(s)**, and **Collaborators** who are participating in this project.

On the Japan side:

The Principal Investigator (PI) is the lead researcher responsible for the milestones and deliverables of the project, coordinating research activities carried by the research team, managing the grant award and submitting progress reports on behalf of the Japan-based research team.

The Co-Principal Investigator(s) (Co-PI) will be the person(s) leading and managing a particular aspect of the collaborative effort. When allocating research funding to different institutions within a research team, a Co-PI must be selected for each institution, who will then become the research contact for that institution under the contract research agreement.

A "Collaborator" means a researcher who will not be allocated research funding directly. A researcher who belongs to the same department or laboratory as the PI and Co-PIs is strongly recommended to be designated as a “Collaborator” rather than a “Co-PI”. Additionally, an external collaborator, such as a company, consortium, etc., to whom research funding will not be allocated, can be included as a “Collaborator”. JST encourages the inclusion of a "Collaborator" who can expand the scope of team’s research.

On the Singapore side:

The Principal Investigator (PI) is the lead researcher responsible for delivering the milestones and deliverables of the project, coordinating research activities carried out by the research team, managing the grant award and post-award administrations (e.g. progress and final reports, project variation requests, financial reporting etc.) on behalf of the Singapore-based research team.

The Co-Investigator(s) (Co-I) will be the person(s) leading and managing a particular aspect of the collaborative effort.

A “Collaborator” means any company, institution, incorporated body or other industry or academic collaborator, which is not an Institution or an Investigator but is to be engaged in the Research in collaboration with the Institutions or any of them. Teams from Singapore are encouraged to include collaborators from other ASEAN Member States. Possible collaborators should seek their own funding or provide in-kind contributions.

# Part I. General Information

## Japan-based PI

|  |  |  |  |
| --- | --- | --- | --- |
| SURNAME  (FAMILY NAME) | e.g. KAGAKU | Given Name  (First Name) | e.g. Taro |
| Designation/Position, Organization/Department, Institution/University | e.g. Associate Professor, Department of Science and Engineering, Kagaku University | | |
| E-mail |  | | |

## Japan-based Co-PIs and Collaborators

|  |  |  |  |
| --- | --- | --- | --- |
| Role  *(e.g. Co-I/ Collaborator)* | Full Name  *(SURNAME, Given Name)* | Designation/Position, Organization/Department, Institution/University | Email Address |
| Co-PI | SHINKO, Hanako | Professor, Graduate School of Engineering, Shinko University |  |
| Collaborator | GIJUTSU, Jiro | Assistant Professor, Graduate School of Engineering, Shinko University |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

## Singapore-based Principal Investigator (PI)

|  |  |  |  |
| --- | --- | --- | --- |
| Surname  (Family Name) |  | Given Name  (First Name) |  |
| Designation/Position,  Organization/Department, Institution/University |  | | |
| E-mail |  | | |

## Singapore-based Co-Investigator (Co-I) & Collaborator (if any) and Collaborators from Other ASEAN Member States (if any)

|  |  |  |  |
| --- | --- | --- | --- |
| Role  *(e.g. Co-I/ Collaborator)* | Full Name  *(Surname,*  *Given Name)* | Designation/Position, Organization/Department, Institution/University | Email Address |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

# Part II. Scientific Abstract of the Proposal

*An abstract should not exceed* ***1 page*** *and should include:*

## 1. Scientific Abstract

*1. Objectives*

*2. Methodology*

*3. Expected scientific results of the joint research*

*4. Mode of cooperation including* *the exchange of people (for example, young researchers including students)*

*5. Expected economic and social impact of the joint research*

## 2. Keywords

*List up to 15 keywords that describe the nature of the proposal.*

# Part III. Research Topic and Work Plan

## 1. Detailed Description of the Joint Project

*Please refer to the evaluation criteria in the guidelines. References should be listed at the end of this section. Description should not exceed* ***6 pages****.*

### 1) Objectives and Key Results (OKRs):

*What are the defined goals of the proposed project, and the expected scientific and technological outcomes as a result of the proposed project? Please summarize into 1-3 sentences.*

### 2) Problem statement:

*What is the problem to be addressed in the project and what is its importance? What will be the contribution to the area if the project is successful? Please quote relevant works in the field as needed.*

### 3) Scientific and technological challenges and the means and methods to overcome them:

*Explain the scientific and technological challenges that the project proposes to overcome in order to achieve its objectives. Describe by what means and methods these challenges can be overcome. Cite references that help the reviewers understand that the challenges mentioned have not yet been overcome (or have not been adequately overcome) and that they can be overcome with the methods and means proposed in the analysis.*

### 4) Future Prospect of Research:

*Describe the economic and social contributions expected from the research results, as well as the added value expected from the project (focusing on the synergies and mutual benefits of international collaboration).*

### 5) Exchange Plan for Researchers:

*Describe a specific plan and outcomes for exchange of researchers including graduate and/or undergraduate students who can play an important role in the joint research and who are expected to be internationally active in the future, e.g., by promoting their international mobility and circulation, such as dispatching them to the partner country or holding workshops, or by providing international research opportunities such as presenting at international conference.*

### 6) Bibliography:

*Up to 5 relevant scientific publications / patent applications of the joint project related to the proposal published in the past 5 years. If there is no applicable item, please list the principal publications of each PI in the past 5 years and describe how you will collaborate in the future.*

## 2. Time Schedule and Research Plan

*Description should not exceed* ***4 pages****.*

### 1st Year (Apr. 2026 – Mar. 2027)

Research Work Plan:

*Itemize the specific research activities conducted by each team in each year.*

1) Japan side

2) Singapore side

Research Exchange Plan:

*Include a clear description of plans for joint workshops, researcher exchanges etc. in each year, purposes of the activities and expected outcomes through these activities.*

1) Japan side

2) Singapore side

### 2nd Year (Apr. 2027 – Mar. 2028)

Research Work Plan:

1) Japan side

2) Singapore side

Research Exchange Plan:

1) Japan side

2) Singapore side

### 3rd Year (Apr. 2028 – Mar. 2029)

Research Work Plan:

1) Japan side

2) Singapore side

Research Exchange Plan:

1) Japan side

2) Singapore side

# Part IV. Budget Description (for Japan side)

## 1. Budget Summary in Japanese Yen

*For Japanese applicants in international joint research, JST funding will be up to 30 million Japanese yen as direct expenses per project for a duration of 36 months.*

*Please complete the expenditure plan in the table below, categorized by item, fiscal year, and direct expenses. Additionally, please provide an expenditure plan for the exchange plan ((b) below), which aims to facilitate exchange activities of researchers, including graduate and undergraduate students who can play an important role in the joint research and who are expected to be internationally active in the future. The plan should detail expenses by item and may include costs for holding workshops to strengthen connections and travel expenses, with a target of allocating around 30% of the total direct expenses ((a) below) for this purpose.*

*\* Additionally, 30% of the direct expenses will be allocated as indirect expenses* *to the hosting institutions.*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Amount (1,000 yen) | First Year  (FY2026) | Second Year  (FY2027) | Third Year  (FY2028) | **TOTAL (a)** | |
|  | **Exchange Plan (b)** |
| Facilities and equipment |  |  |  |  |  |
| Consumables |  |  |  |  |  |
| Travel |  |  |  |  |  |
| Personnel |  |  |  |  |  |
| Others |  |  |  |  |  |
| **Total amount** |  |  |  |  | *\*around 30% of the left cell* |

# Part V. Budget Description (for Singapore side)

*Singapore-based applicants need to fill in the excel template for the Budget breakdown, Milestone, Work contributions and KPIs and complete the following table with the respective amounts.*

*The summary of the budget required for this project is as follows, budget breakdown for each vote should be stated in the excel template.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Year 1 ($) | Year 2 ($) | Year 3 ($) | Total ($) |
| Manpower / Labour (FTE) [EOM] |  |  |  |  |
| Equipment (EQPT) |  |  |  |  |
| Other Operating Expenses (OOE) |  |  |  |  |
| Overseas Travel (TRVL) |  |  |  |  |
| Research Scholarship (RS) |  |  |  |  |
| Indirect costs (30%) |  |  |  |  |
| GRAND TOTAL (SGD) |  |  |  |  |

Please indicate the amount in the nearest ten/hundred dollars.

**Key Performance Indicators (KPIs) for Singapore PublicSector Research Performer**

|  |  |
| --- | --- |
| **KPI** | **Total Capability Indicators (if applicable)** |
| No. of joint publications with an overseas joint collaborator [**minimum 1**] |  |
| No. of publications (top 10% most highly cited journals) |  |
| No. of jointly organised webinars with at least 60 local and international participants |  |
| No. of follow-on industry projects catalysed through the collaboration |  |
| Others, please specify/propose the indicator(s) that the team may have: |  |

# Part VI. Work Contribution (Work Contribution of team members and collaboration plans across both countries)

*Please provide detailed description of the work contribution of each of the team members of all Singapore-based and Japan-based public sector research performers as well as collaborators (if any).*

## 1. Japan

|  |  |  |
| --- | --- | --- |
| **Role** | **Name** | **Role in Project** |
| PI |  | e.g. Leading project |
| Co-PI  *\*Please delete if not applicable* |  | e.g. Developing XXX and leading the research content B. (detailed contributions are required) |
| Collaborator  *\*Please delete if not applicable* |  | e.g. Developing YYY on research content A (detailed contributions are required) |

## 2. Singapore

|  |  |  |
| --- | --- | --- |
| **Role** | **Name** | **Role in Project** |
| PI |  |  |
| Co-I  *\*Please delete if not applicable* |  |  |
| Collaborator  *\*Please delete if not applicable* |  |  |

# Part VII. Curriculum Vitae

## 1. Japan

*Description should not exceed* ***3 pages*** *per PI,* ***2 pages*** *per Co-PI (please do not write about Collaborators here).*

### PI: Name

#### 1) Basic Information

|  |  |
| --- | --- |
| CV  (Major Work and Research History) | Graduated in 20XX from the Doctoral Program in [Field of Study], Graduate School of [Department], [University]  (Supervisor: Professor [Name]) [Supervisor's name must be entered], obtained a Ph.D. in [Discipline]  Assistant Professor, Faculty of xxxx of xxxx University from 20XX to 20XX  Research about xxxx in Professor xxxx's laboratory  Researcher of xxxx Research Institute from 20XX to 20XX  Conducted xxxx research in the xxxx laboratory of Professor xxxx  *Please include the laboratory director's name.* |
| Information of PI | URL:  *- Please provide a link to your researchmap or to a website where your research achievements can be viewed.*  *- The evaluator will refer to this information as necessary.* |
| Author notation in English papers by the PI | *Please enter the full name accurately* |

#### 2) Achievements in Research, Professional Activities, and International Personnel Exchanges

* *Achievements may include academic papers, books, international conference proceedings, invited lectures at major international conferences, awards, patents, licenses, entrepreneurship, datasets, software, standardizations, and past achievements as a principal researcher, etc. Please prioritize those that are the most relevant to the proposal and most recent.*
* *A total of 10 achievements is allowed at max. Please provide a brief explanation of each achievement to clarify its significance in executing the proposed plan.*
* *Please base the explanation on facts and make it as objective and quantifiable as possible (Including JIF and h-index, etc. is not necessarily required).*
* *For academic papers, list the paper name, the author names (list all authors and underline your name), the journal name, volume number and page, publication year, and bibliographic information (for books). Please only list papers that have already been published or those with finalized publication status. Author names may be abbreviated as "J. Smith ", etc.*
* *For patents, please list the application number, inventor, invention name, applicant, and filing date.*
* *For past international personnel exchange achivements, please describe the background and achievements of international joint research and researcher exchanges (dispatching young researchers, inviting researchers from other countries, holding symposia, etc.) conducted by the Principal Investigator to date.*

### Co-PI: Name

#### 1) Basic Information

|  |  |
| --- | --- |
| Information of Co-PI | URL:  *Please provide a link to the Co-PIs researchmap or to a website where the Co-PIs research achievements can be viewed.*  *The evaluator will refer to this information as necessary.* |
| Author notation in English papers by the Co-PI | *Please enter the full name accurately* |

#### 2) Achievements in Research, Professional Activities, and International Personnel Exchanges

* *Achievements may include academic papers, books, international conference proceedings, invited lectures at major international conferences, awards, patents, licenses, entrepreneurship, datasets, software, standardizations, and past achievements as a principal researcher, etc. Please prioritize those that are the most relevant to the proposal and most recent.*
* *A total of 10 achievements is allowed at max. Please provide a brief explanation of each achievement to clarify its significance in executing the proposed plan.*
* *Please base the explanation on facts and make it as objective and quantifiable as possible (Including JIF and h-index, etc. is not necessarily required).*
* *For academic papers, list the paper name, the author names (list all authors and underline your name), the journal name, volume number and page, publication year, and bibliographic information (for books). Please only list papers that have already been published or those with finalized publication status. Author names may be abbreviated as "J. Smith ", etc.*
* *For patents, please list the application number, inventor, invention name, applicant, and filing date.*

## 2. Singapore

*In no more than* ***2 pages*** *per PI / Co-I, please provide only the following required information based on the format below:*

|  |  |
| --- | --- |
| Salutation & Name of PI |  |
| Current Appointment(s) & Institution Affiliation(s) |  |
| Percentage of time spent every year |  |
| Latest publications in the area described in this project (list up to 10) |  |
| Other key research achievements (e.g. patents, licenses, awards, spin-off companies, external consultancy etc.) |  |
| Past international personnel exchange achievements |  |

|  |  |
| --- | --- |
| Salutation & Name of Co-I |  |
| Current Appointment(s) & Institution Affiliation(s) |  |
| Percentage of time spent every year |  |
| Latest publications in the area described in this project (list up to 10) |  |
| Other key research achievements (e.g. patents, licenses, awards, spin-off companies, external consultancy etc.) |  |
| Past international personnel exchange achievements |  |

# Part VIII. Acknowledgment

In submitting this application form, all PIs, Co-PIs and Co-Is acknowledge that this is an A\*STAR and JST bi-partisan programme and that both agencies will use the information we provide in accordance with the following:

* JST & A\*STAR Joint Call for Proposals Guidelines
* Applicable Singapore laws
* Applicable Japanese laws.

Accordingly, we understand that A\*STAR and JST may share any personal information provided in this application with personnel, contractors and third-party providers:

1. for purposes directly related to administering the program, including governance, research and the distribution of funds to successful applicants.
2. to facilitate research, assessment, monitoring and analysis of programmes and activities unless otherwise prohibited by law.

We understand that information that is deemed ‘confidential’ in accordance with the grant opportunity guidelines may also be shared for a relevant Singaporean or Japan government purpose.

A\*STAR and JST may publish information on individual grants in the public domain, including on its websites, unless otherwise prohibited by law.

**Declaration from Principal Investigators, Co-Principal Investigator(s) and Co-Investigator(s) (Co-Is)**

In submitting the application form, all PIs, Co-PIs and Co-Is declared that the JST and A\*STAR Joint Call for Proposals Guidelines including the privacy, confidentiality and disclosure provisions were read and understood.

We declare that we will comply with and require that our subcontractors and independent contractors comply with all applicable laws.

We declare that we meet all the requirements and criteria outlined in the grant call.

We declare that the information contained in this application together with any statement provided is, to the best of my knowledge, accurate, complete and not misleading.

We acknowledge that we may be requested to provide further clarification or documentation to verify the information supplied in this form and that the administering agency may, during the application process, consult with other government agencies or third-party providers, about the applicant’s claims and may also engage external technical or financial advisors to advise on information provided in the application.

We agree to participate in the periodic evaluation of the services undertaken by the implementing agency.

We approve the information in this application being communicated to A\*STAR and JST in electronic form.

We acknowledge that if A\*STAR and JST are satisfied that any statement made in an application is incorrect, incomplete, false or misleading the administering entity may, at its absolute discretion, take appropriate action. We note such action may include excluding an application from further consideration; withdrawing an offer of funding; and/or for a grant under management, terminating a grant agreement between the relevant implementing agency (A\*STAR or JST).

We declare that we have appointed the appropriate team member to submit this form on behalf of the research team. In checking this checkbox, all PIs, Co-PIs and Co-Is acknowledge that they have read, understand and agree on the above acknowledgements and declarations.

**All participants AGREE to the terms of this section.**

# Part IX. Appendices (for Singapore side only)

## 1. Other Funding Support

Please provide details on the funding or other resources provided by any participating industry/institute partner(s) for the applied grant.

|  |  |  |  |
| --- | --- | --- | --- |
| **Type of Resource** | **Funding Organisation** | **Duration of Support (Years)** | **Expiry Date (dd/mm/yyyy)** |
|  |  |  |  |
|  |  |  |  |
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|  |  |  |  |

## 2. Resource Commitment

Provide a breakdown of the resources committed by each participant. Specific to the Intellectual Property (IP) arrangement, outline the planned agreement between the project participants:

### How will IPs by each participant be treated during the initiation of the project,

* 1. Please mention any possible conflict of IP issues that might be relevant for the project. It should be illustrated whether the project is already the subject of any other research/developments/ studies/patents/existing intellectual property rights (own and third-party) including status of domestic and foreign markets, related technology analysis, etc.)

### How will IPs be developed during the course of the collaboration be treated,

### How will IPs be treated at the end of the project. Please indicate plans such as cooperation in follow-up projects, early-stage agreement on the splitting of export markets, sales and/or licensing, possibility of technology transfer and planning for securing intellectual property rights

|  |
| --- |
|  |

## 3. Declaration of Ethics Approval

Please note that the approval of the grant is subject to ethics approval. Please tick if your study involves the following ethics categories. Kindly indicate the expiry date of the ethics approval and attach the relevant ethics approval documentation.

If your research involves any of the ethics category but ethics approval us not necessary, please provide the relevant rational under the comments’ textbox.

Please tick, where appropriate, if your study involves the following:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Ethics Category** | **Involved?**  *(tick if yes)* | **Ethics Approval Required?**  *(tick if yes)* | **Ethics Approval Expiry Date**  *(dd/mm/yyyy)* | **Comments/Reasons** |
| Human subject |  |  |  |  |
| Use of Human Tissues or Cells |  |  |  |  |
| Animal Experimentation |  |  |  |  |
| Use of Animal Tissues or Cells |  |  |  |  |
| Requirement for containment Class 2 and above |  |  |  |  |

Ethics approvals are required. A copy of the ethics approval is attached:

**Yes**

**No**

No ethics approvals are required for the submitted application

## 4. ENDORSEMENT FROM HEAD OF INSTITUTION

To be completed by the Executive Director of the A\*STAR RI or with the appropriate endorsement by the respective Host Institution (by the Chief Executive Director, Executive Director, the Director of Research or equivalent).

|  |
| --- |
| **Specific Comments (if any)** |
|  |

**In signing the Grant Application, the Host Institution UNDERTAKES to:**

* Confirm the accuracy and completeness of the information submitted.
* Ensure that the applicant is independently salaried by the institution for the entire period of the grant.
* Ensure that the budget is appropriate and reasonable (e.g., no double funding/excessive purchase of equipment), and is aligned with the Host Institution’s HR and other policies.
* Ensure that the proposed research will be conducted in the Host Institution.
* Provide adequate resources to the applicant for the entire grant period (e.g., lab spaces, mentorship and career development support).
* Ensure that the funds provided are used for appropriate purposes.
* Ensure that the study complies with all laws, rules and regulations pertaining to national and the institution’s research operating procedures and guidelines.

***The Institution supports/does not support\* this proposal.***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name: |  |  |  |  |
|  |  |  |  |  |
| Designation: |  |  | Institution: |  |
|  |  |  |  |  |
| Signature: |  |  | Date: |  |
|  |  |  |  |  |

**\*** *Please delete where appropriate*

## 5. ENDORSEMENT FROM PRINCIPAL INVESTIGATORS AND CO-INVESTIGATORS

In signing the Grant Application, all Principal Investigators (PIs) and Co-Investigator(s) (Co-Is) UNDERTAKE, on any Grant Award, to:

* Not send similar versions of part(s) of this proposal to other agencies for funding.
* Submit supporting documents of ethics approval obtained from the relevant Institutional Review Board (IRB) and Animal Ethics Committee for studies involving human subjects / human tissues or cells, and animal / animal tissues or cells respectively.
* Be actively engaged in the execution of the research and comply with all laws, rules and regulations pertaining to animal and human ethics, including the Singapore Good Clinical Practice Guidelines (for Singapore applicants only)
* Ensure that all publications arising from research wholly or partly funded by A\*STAR will be forwarded to A\*STAR. (for Singapore applicants only)
* Obtain approval from A\*STAR before engaging in any commercial activity that will exploit the findings funded by A\*STAR. (for Singapore applicants only)
* State that this project is funded by A\*STAR and JST when disclosing the research result.

***I / We declare that the facts stated in this application and the accompanying information are true and that this is an original and latest version of the proposal.***

***I / We also declare that no other versions of this proposal (or parts thereof) with similar objectives, scope, deliverables or outcomes have been or will be submitted to any other funding bodies.***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Name and Designation** | **Institution** | **Signature** | **Date** |
| Singapore-based  Principal Investigator (PI) |  |  |  |  |
| Singapore-based  Co-Investigator (Co-I) \* |  |  |  |  |
|  | | | | |

*\* Please add / remove where appropriate*