

## ANNEX G

### INSTRUCTIONS TO INSTITUTION'S APPOINTED AUDITOR ON KEY PERFORMANCE INDICATORS AUDIT (AI SINGAPORE RESEARCH PROGRAMME)

1. **Objective** – These audit instructions lay down the tasks required of the Institution and the auditor appointed by the Institution in connection with the auditing of the KPIs for the Project.
2. **Selection of auditor** – The auditor must be a chartered or registered public accountant<sup>1</sup>. If there is any change of auditor during the audit, the Institution must inform AI Singapore about the change and the reason(s) for the change before the new auditor starts work. AI Singapore reserves the right to veto the choice of the auditor if it sees fit.
3. **Frequency of audit** – An annual audit must be done at the end of every twelve (12)-month period, provide that the first period shall commence from the date the Institution first achieve the KPIs as set out in Annex D of the Letter of Award until 31 March of the following year, and subsequently, from 1 April of the same year to 31 March of the next year. The annual audit will be a selective audit of some of the major KPIs achieved.
4. **Scope of audit** – The auditor's report template attached should be used in the audit. The auditor is to check the KPIs as stipulated in Annex D of the Letter of Award as to whether they are realised and reported with quantitative evidence. Specifically, the auditor is to check:
  - 4.1 Whether the “**Number of Top 10% Publications**” reported during the Term is an accurate reflection of the number of publications in the top 10% of Science and Technology journals and International conferences in the field as tracked in the Clarivate Analytics Journal Citation Reports or equivalent list as approved by NRF.
  - 4.2 Whether the “**Number of Industry Projects**” reported during the Term is an accurate reflection of the number of research collaboration agreements, contract research agreements or consultancy agreements signed between companies and public research performers, tracked by company type (MNCs, LLEs, SMEs, Singapore-based start-ups and public agencies/VWOs) and the number of repeat partners. Start-ups must be incorporated in Singapore and incorporated for less than 5 years. In special cases a company older than 5 years can be considered a start-up if it has pivoted significantly since incorporation.
  - 4.3 Whether the “**Amount of Private Sector Industry R&D Co-funding (in cash)**” reported during the Term is an accurate reflection of the amount of cash funding received from private sector industry sources for R&D projects commenced under RIE2020, and excludes funds from non-private sector sources such as public sector agencies, international grant agencies or foundations. This should be tracked by (i) Enterprise type

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<sup>1</sup> Auditor refers to practicing public accountant registered in accordance with the Accountants Act (Cap 2). The public accountant shall also be a member of the Institute of Singapore Chartered Accountants (ISCA).

(MNC/LLE/SME), (ii) Engagement type (new or renewal depending on whether it is a new arrangement or a follow-on engagement with additional funding). Funding from AI Singapore Research Programme should not be counted towards this KPI.

- 4.4 Whether the “**Amount of Private and/or Non-Private Sector Industry R&D Spending (in cash and/or in-kind)**” reported during the Term is an accurate reflection of the amount of R&D investment (from private sector and/or non-private sector sources) that a company commits to spend in Singapore as a result of collaborations with a public research performer. The R&D investment can comprise cash and/or in-kind. The cash and/or in-kind investment can fund (i) the R&D project performed at public sector entity(s) and/or (ii) the company’s own research operations in Singapore related to the public-sector R&D collaboration. The investment by the company, whether in cash or in qualifying in-kind contributions should, where possible, be reflected in the agreements signed between the company and the relevant performer(s). Funding from AI Singapore Research Programme should not be counted towards this KPI.
- 4.5 Whether the “**Number of Technologies Deployed**” reported during the Term is an accurate reflection of the number of research findings or technologies developed that are deployed (e.g. through a license or at least at pilot-scale) that will contribute to at least one of the following outcomes: (i) introduction of new product in the market; (ii) introduction of new service in the market; (iii) product of process improvement. This should be tracked by type of company (MNCs, LLEs, SMEs, start-ups and public sector/VWOs).
- 4.6 Whether the “**Number of Industry R&D Jobs**” reported during the Term is an accurate reflection of the number of innovation positions induced in the ecosystem by public R&D investments. This includes all persons who actually know and work on AI as part of their job employed by companies for R&D and R&D-related activities funded from AI Singapore Research Programme such as researchers, project managers, product designers, technicians and other supporting staff. This KPI does not count admin staff employed by the industry for the Project. To be tracked based on RSE (i.e. RSEs employed by companies through in-kind manpower contributions but not RSEs employed by IHLs or through IHLs’ in-kind manpower contributions) and non-RSE, as well as the degree requirement specified by the companies for the jobs that they create.
- 4.7 Whether the “**Number of Successful Start-ups**” reported during the Term is an accurate reflection of the number of start-ups that have achieved at least one of the following outcomes: (i) received subsequent 3<sup>rd</sup> party financing, equal or greater than \$250K; (ii) increased enterprise valuation by at least 20%; or (iii) crossed \$250K annual revenue.

If a start-up has achieved either (i) or (iii) prior to collaboration with the Project or receiving funding from AI Singapore Research Programme, the start-up must then attain criterion (ii) to be considered successful. 3<sup>rd</sup> party financing refers to equity financing, debt financing or grants. Government agencies and the enterprise itself do not qualify as 3<sup>rd</sup> party financing. Start-ups must be incorporated in Singapore and incorporated for less than 5 years. In special cases a company older than 5 years can be considered a start-up if it has pivoted significantly since incorporation. Non-AI start-ups can be included, as

long as they have collaborated or spun off from the Project. Multiple rounds of financing can be counted towards the \$250K floor as long as they are received within the same calendar year.

4.8 Whether the “**Number of Manpower Spin-Off to Industry**” reported during the Term is an accurate reflection of the number of RSEs involved in the Project that went on to be employed by the industry, or create a start-up. This refers to all persons employed by public research performers (including AI Singapore) for R&D and R&D-related activities funded from AI Singapore Research Programme, thereafter employed in industry for R&D and R&D-related activities not funded from AI Singapore Research Programme.

4.9 Whether the “**Total Value-Added from Projects**” reported during the Term is an accurate reflection of the (i) amount of cost savings/revenue generated, (ii) AI-related EOM and expenditure on the AI products/services that were a result of the Project, and the total amount also includes (iii) the amount of private sector industry R&D co-funding (in cash and in-kind) the companies put in for the Project.

Note: i) Cost savings refers to the amount saved from OPEX upon the AI tech implementation, comparing the before and after OPEX. ii) AI EOM should go beyond the Project, based on the AI headcount in the company. iii) Funding from AI Singapore Research Programme should not be counted towards this KPI.

Any deviations from the above stated KPIs should be reported in the KPI report format attached as **Appendix 1** under the Auditor’s Report Template.

5. **Methodology** – The audit should be conducted by means of complete checks to assess the accuracy of all reported KPIs for the previous financial year, based on the most recent cumulative half-yearly Key Performance Indicators Report submitted by the Institution to AI Singapore. The Institution must ensure that the auditor is provided with any information regarded as important for the auditor’s evaluation of the administration, including but not limited to the Letter of Award, all funding agreements with the Institution as well as the half-yearly Key Performance Indicators Report and Yearly Progress Report as prescribed in Clause 8.1(b) and 10.13 of the Terms and Conditions in Annex A of the Letter of Award submitted to AI Singapore. The auditor must be given free access to conduct any examination.

6. **Irregularities** – If the auditor becomes aware of offences or significant non-observance of the Agreement or conditions on which the Funding was made and such discrepancies cannot be satisfactorily explained by the Institution, it is the duty of the auditor to immediately inform AI Singapore within two (2) weeks of the discovery. Such findings are to be submitted together with the audit report. The same applies if during the audit or in another way the auditor becomes aware that continuation of operations is uncertain for financial or other reasons.

7. **Endorsements/Qualifications** – The auditor endorses the attached KPI Report (Appendix 1), stating that the KPIs have been audited in accordance with the rules laid down in these instructions. Qualifications must be stated in the endorsement. The auditor must report his/her assessment and conclusion regarding the audit conducted. This report can be made in connection with the audit endorsement or in the auditors’ records.

8. **Report** – The Institution must submit a copy of the audit report to AI Singapore together with the endorsed KPI Report (Appendix 1) within two (2) weeks of the completion of the audit.

## Auditors' Report Template

**Auditor's Report in connection with the Achievement of Key Performance Indicators for the <name of Project> of the <Name of Institution> for the period from <DD MM YYYY> to <DD MM YYYY>**

Dear Sirs

We have performed the procedures in accordance with your instructions to auditors you have provided, with respect to the attached KPI Report (FY YYYY) attached as Appendix 1, prepared by the **management of the <Name of Institution>**. This is in connection with the Institution's obligations relating to the **<Name of Project>** funded under the AI Singapore Research Programme for the financial year from **DD MM YYYY to DD MM YYYY**.

Our engagement was undertaken in accordance with the Singapore Standard on Related Services SSRS 4400 Engagements to Perform Agreed-upon Procedures Regarding Financial Information. The procedures were performed solely to assist you in evaluating whether the KPIs stated on the attached Statement are in accordance with the documents and records kept by the Institution.

We report our findings below:

1. The "**Number of Top 10% Publications**" reported during the Term is an accurate reflection of the number of publications in the top 10% of Science and Technology journals and International conferences in the field as tracked in the Clarivate Analytics Journal Citation Reports or equivalent list as approved by NRF.
2. The "**Number of Industry Projects**" reported during the Term is an accurate reflection of the number of research collaboration agreements, contract research agreements or consultancy agreements signed between companies and public research performers, tracked by company type (MNCs, LLEs, SMEs, Singapore-based start-ups and public agencies/VWOs) and the number of repeat partners.
3. The "**Amount of Private Sector Industry R&D Co-funding (in cash)**" reported during the Term is an accurate reflection of the amount of cash funding received from private sector industry sources for projects commenced under RIE2020, and excludes funds from non-private sector sources such as public sector agencies, international grant agencies or foundations. This is tracked by (i) Enterprise type (MNC/LLE/SME), (ii) Engagement type (new or renewal depending on whether it is a new arrangement or a follow-on engagement with additional funding).
4. The "**Amount of Private and/or Non-Private Sector Industry R&D Spending (in cash and/or in-kind)**" reported during the Term is an accurate reflection of the amount of R&D investment (from private sector and/or non-private sector sources) that a company commits to spend in Singapore as a result of collaborations with a public research performer, comprising cash and/or in-kind.

5. The “**Number of Technologies Deployed**” reported during the Term is an accurate reflection of the number of research findings or technologies developed that are deployed (e.g. through a license or at least at pilot-scale) that will contribute to at least one of the following outcomes: (i) introduction of new product in the market; (ii) introduction of new service in the market; (iii) product of process improvement.
6. The “**Number of Industry R&D Jobs**” reported during the Term is an accurate reflection of the number of innovation positions induced in the ecosystem by public R&D investments, and it is tracked based on RSE and non-RSE as well as the degree requirement specified by the companies for the jobs that they create.
7. The “**Number of Successful Start-ups**” reported during the Term is an accurate reflection of the number of start-ups that have achieved at least one of the following outcomes: (i) received subsequent 3<sup>rd</sup> party financing, equal or greater than \$250K; (ii) increased enterprise valuation by at least 20%; or (iii) crossed \$250K annual revenue.
8. The “**Number of Manpower Spin-Off to Industry**” reported during the Term is an accurate reflection of the number of RSEs involved in the Project that went on to be employed by the industry, or create a start-up. It counts persons employed by public research performers (including AI Singapore) for R&D and R&D-related activities funded from AI Singapore Research Programme, thereafter employed in industry for R&D and R&D-related activities not funded from AI Singapore Research Programme.
9. The “**Total Value-Added from Projects**” reported during the Term is an accurate reflection of the (i) amount of cost savings/revenue generated (ii) AI-related EOM and expenditure on the AI Products/Services that were a result of the Project, and the total amount also includes (iii) amount of private sector industry R&D co-funding (in cash and in-kind) the companies put in for the Project.

*(Note: Any deviations to the above stated KPIs should be reported in the KPI report format attached as Appendix 1 under the Auditor’s Report Template.)*

Our report is solely for the purpose set forth in the second paragraph of this report and for your information and is not to be used for any other purpose or to be distributed to any other parties other than the Institution. This report relates only to the items specified above.

Yours faithfully,

(CPA Firm name)

(Date)

Copy: the Institution

*(2 August 2018)*

Key Performance Indicators Audit Report for FY YYYY

KEY PERFORMANCE INDICATORS				
Components	<REPORTED> KPIs	<ACTUAL ACHIEVED > KPIs <i>(To be updated by Auditor)</i>	Variance <i>(To be updated by Auditor)</i>	Reasons for Variance/Remarks <i>(To be updated by Auditor)</i>
No. of Top 10% Publications				
No. of Industry Projects				
Amount of Private Sector Industry R&D Co-funding (in cash) (\$M)				
Amount of Private and/or Non-Private Sector Industry R&D Spending (in cash and/or in-kind) (\$M)				
No. of Technologies Deployed				
No. of Industry R&D Jobs				
No. of Successful Start-ups				
No. of Manpower Spin-off to Industry				
Total Value-added from Projects (in \$M), including: a. Cost Savings/Revenue Generated b. AI EOM and Expenditure on AI Products/Services c. Private Sector Industry R&D Co-funding (in cash and in-kind)				

## Appendix 2

### Key Performance Indicators Table

S/N	KPI	FY17 H1	FY17 H2	FY18 H1	FY18 H2	FY19 H1	FY19 H2	FY20 H1	FY20 H2	FY21 H1	FY21 H2	FY22 H1	Total
1	No. of Top 10% Publications												
2	No. of Industry Projects												
3	Amount of Private Sector Industry R&D Co-funding (in cash) (\$M)												
4	Amount of Private and/or Non-Private Sector Industry R&D Spending (in cash and/or in-kind) (\$M)												
5	No. of Technologies Deployed												
6	No. of Industry R&D Jobs												
7	No. of Successful Start-ups												
8	No. of Manpower Spin-off to Industry												
9	Total Value-added from Projects (in \$M), including: a. Cost Savings/Revenue Generated b. AI EOM and Expenditure on AI Products/Services c. Private Sector Industry R&D Co-funding (in cash and in-kind)												

Each KPI is further defined in the half-yearly KPIs report.