

Guidelines on Annual Performance Evaluation for the State Key Laboratories and the Hong Kong Branches of Chinese National Engineering Research Centers

Background

- 1. The re-organisation of State Key Laboratories (SKLs) conducted in 2024 underscores the vital role played by the state laboratories. While SKLs and China National Engineering Research Centers (CNERCs) have the autonomy to design their own research strategies, it is crucial for the directors of these units to align their research initiatives with the broader national strategic objectives. This alignment should include the formation of collaborative research teams that focus on addressing significant national issues, rather than concentrating solely on specific research interests. By adopting this approach, these laboratories can enhance their impact and demonstrate their unique contributions to national development and elevating the research excellence of PolyU to new heights.
- 2. To ensure that PolyU's SKLs and CNERCs fulfill their roles effectively, a set of performance review guidelines and criteria has been established. Assessments will be conducted annually to serve as a continuous improvement mechanism for identifying issues, taking follow-up actions, and developing future plans.

Review Process

3. The Review will be conducted annually, and each SKL and CNERC is required to complete the Annual Internal Report Form (Attachment). A Review Committee, consisting of the President (Chair), DP, VPRI, AVPRI, DoRI, is established to assess the performance of the SKLs and CNCERs. This committee will also determine the University funding support and make decision on the appointment of directors of SKL and CNERC, if necessary. The review process is summarised as follows:





Timeline

(Version: March 2025)

4. Schedule for Preparation of Internal Annual Report by SKLs and CNERCs to the Review Committee (from 2026 onwards)

| Action | Action by | | |
|--|--|--|--|
| Call for submission of Internal Annual Report with the new | 2 nd week of December | | |
| template | | | |
| Report submission to RIO with Dean/FRC concerned | 3 rd week of January | | |
| endorsement | | | |
| RIO internal checking | 4 th week of January | | |
| Report submission to Review Committee | 2 nd week of February | | |
| Directors of SKLs and CNERCs present the reports to the | 1 st to 2 nd week of March | | |
| Review Committee | | | |
| Review Committee provide final results | End of March | | |
| The final result shall be confirmed no later than 3 |) June of each year. | | |

Scores and Results

5. Rating

| Score range | Rating |
|-------------|-------------|
| 85 or above | Outstanding |
| 65 - 84 | Good |
| 51-64 | Pass |
| Below 50 | Fail |

6. Results

If the assessment result is rated as Fail (i.e., scored 50 or below), the Review Committee will decide on appointing new directors/heads of the SKL or CNERC.

Assessment criteria

7. For State Key Laboratories (SKL) – (Reference: 國家重點實驗室評估指標體系說明)

| | Performance indicators | Weighting | Evidence |
|---|--|-----------|---|
| 1 | External Research Grant Acquisition | 50% | National projects, e,g, NSFC, MOST projects International collaboration projects, e.g. Horizon 2020, 中科 院國際合作項目 Provincial and ministerial major science and technology projects, e.g. ITF, RGC Collaboration research with corporates |
| | | | External FundingScore RangesAcquired (HK\$) * |



| | Performance | Weighting | Evidence | | |
|---|------------------------|------------|--|-----------------------|--|
| | indicators | | | | |
| | | | \$15M or more 40%-50% | | |
| | | | \$10M - \$15M 30%-39% | | |
| | | | \$8M -\$10M 20%-29% | | |
| | | | Less than \$8M <20% | | |
| | | | * Only research grant acquired over HK\$ | 52 million will be | |
| 2 | D 1 | 200/ | counted. | 1/1 1 | |
| 2 | Research contribution, | 20% | • Prestigious provincial/ ministerial/ nati awards and other awards related to the | | |
| | Outcomes | | in SKL | | |
| | and impact | | High quality journal publications, e.g. in PNAS series journals | Nature/ Science/ | |
| | | | • Patents | | |
| | | | Monographs | | |
| | | | • Standards | | |
| | | | • Development of new products/ new de | vices/ new processes/ | |
| | | | new technologies | | |
| | | | • Successful cases of technology transfer | | |
| | | | • Development of equipment and modification of equipment | | |
| | | | (prototypes demonstrating the applicat | ion of research | |
| 3 | Teerre | 20% | conducted by the SKL) | ·.1 . 1 | |
| 3 | Team building and | 20% | Establishment of high-level research te funding (創新團隊) | eam with external | |
| | talent | | • High-level personnel, e.g. 正高, 副高 | | |
| | training | | • Recognition from high-level external bodies, e.g.千人計劃, | | |
| | | | 長江學者, RGC Fellows/Croucher Fellows. | | |
| | | | Editorship of leading journals | | |
| | | | • Key position of academic and research society | | |
| | | | • Talent cultivation, e.g. post-doc, PhD and MPhil | | |
| 4 | Open | 10% | Research exchange & International collab | poration | |
| | projects, | (no more | • International and national scholars and experts in the | | |
| | research | than 3% of | Academic Committee Organisation or co-organisation of | | |
| | exchange and | each | conference globally, regionally or locally | | |
| | operation | indicator) | • Keynote speeches made | | |
| | management | | • Other exchange activities, e.g. inbound/outbound visits from/to Mainland China and foreign countries, participating | | |
| | | | conferences | | |
| | | | • Visiting scholars | | |
| | | | Open to the public and Science Communic | | |
| | | | Visits, summer camp, seminars, experi atudanta | ments conducted by | |
| | | | students | | |



| | Performance indicators | Weighting | Evidence |
|---|----------------------------------|----------------------------------|--|
| | | | Media coverage on key innovations from the SKL Open projects and the usage of facilities Facilities with value over RMB 0.5 million High equipment utilisation rate Sharing of space and facilities Operation management Financially sustainable and the director has adopted a prudence approach to allocate funding resources under the University policies. Comprehensive guidelines on the operation of laboratories Well-defined job responsibilities of personnel Organised record of research data Open and transparent decision making on utilisation of funding |
| 5 | Bonus item (max. 5 points) | Add up to 5 points maximum | Marketing and public relation efforts to attract industry partners or collaboration with renowned institutions in the field Media coverage on key innovations/ projects from SKLs |

Note: No member of the SKL (including the Director) could be the PI of projects with a total amount of funding exceeding 15% of the budget.

8. For Hong Kong Branches of Chinese National Engineering Research Centres (CNERC) - (*Reference: 國家工程研究中心評價工作指南(試行*))

| | Category (一級指標) | Weighting | Performance indicator (二級指標) | Evidence |
|---|--|-----------|------------------------------------|--|
| 1 | External Research Grant Acquisition | 50% | - | National projects, e,g, NSFC, MOST projects International collaboration projects, e.g. Horizon 2020, 中科院國際合作 項目 Provincial and ministerial major science and technology projects, e.g. ITF, RGC Collaboration with major industrial partners in consultancy projects, etc. External Funding Score Ranges Acquired (HK\$) * |



| a . | *** | D 4 | | rsion. March 2025) |
|--|-----------|------------------------------------|--|--|
| Category (一級指標) | Weighting | Performance indicator (二級指標) | Evidence | |
| | | | \$15M or more | 40%-50% |
| | | | \$10M - \$15M | 30%-39% |
| | | | \$8M -\$10M | 20%-29% |
| | | | Less than \$8M | <20% |
| | | | * Only research grant | acquired over |
| | | | HK\$2 million will be c | counted |
| Alignment with national strategies | 15% | Industry contribution | Contribution to ma developing critical technologies Contribution to sup implementation of missions and key p Contribution to pro- technology transfer industrial developer of research outcom provincial/ national leading industrial of prototypes demons application of research CNERC Collaboration with partners in consulta Hong Kong, Great Mainland China ar joint laboratories e major industrial pa industrial products applications, etc. | industrial oporting the national strategic orojects omoting r and driving nent, e.g. adoption nes of CNERC by l government and companies, strating the arch conducted by major industrial ancy projects in er Bay Area, nd overseas, e.g. stablished with rtners, joint |
| Fostering | 15% | Research and | Number of invention | on patent |
| industrial | (no more | development | applications that ha | - |
| development | than 8% | (R&D) | for review | - |
| | for each | achievements | • Number of PCT pa | tent applications |
| | indicator | | • Number of valid in | vention patents |
| | | | • As presented in an | - |
| | | | demonstrates the v | |
| | | | impacts of CNERC | |
| | | | the region and bey | ond |



| | (Version: March 2 | | | |
|---|----------------------------------|--|---|--|
| | Category (一級指標) | Weighting | Performance indicator (二級指標) | Evidence |
| | | | Commercialisation | Income (i.e. income from technical/technological activities and outputs) Income from transfer of patent ownership and licensing Income per RMB 10,000 of R&D expenditure |
| 4 | Capacity building | 20% (no more than 7% for each indicator) | R&D investment | Expenditure on research and experimental development R&D expenditure per capita of research and experimental development personnel |
| | | | Talent cultivation | Number of research and experimental development personnel Number of senior experts and PhDs Number of external experts engaged in R&D work at the CNERC Training and supervision of post- doc, PhD and MPhil |
| | | | Platform support | Original value of instruments and equipment Floor area of office building |
| 5 | Bonus item (max. 5 points) | (no more than 2% for each indicator) | Awards and recognition | National Natural Science Award, Technical Invention Award, Science and Technology Progress Award Other prestigious regional, national and international awards and major recognitions |
| | | | Promoting interdisciplinary research in the focus area at PolyU | Interdisciplinary/ collaborative research projects, typically with team members from different departments/ Faculties Interdisciplinary PhD research projects, typically with supervisors from different departments/ Faculties Regular scholarly activities such as international conferences, seminars and symposia to promote interdisciplinary collaboration |



| Category (一級指標) | Weighting | Performance indicator | Evidence |
|--------------------|-----------|---|---|
| | | (二級指標) Enhancement of the University's reputation on the focus area of CNERC | Efforts made to submit interdisciplinary research proposals for large grants of RGC and other major funding agencies Joint appointment of research staff members between/ among CNERC and department(s) Editorship of leading journals related to the research focus area of the CNERC High quality journal publications, e.g. in Nature/Science/Cell/PNAS series journals. Media coverage on key innovations/ projects from CNERC Visits from government, industrial partners and academic partners |

Note: No member of the Centres (including the Director) could be the PI of projects with a total amount of funding exceeding 15% of the budget.



Attachment

Internal Annual Report of State Key Laboratories (SKLs) and Hong Kong Branches of Chinese National Engineering Research Centers (CNERCs)

Reporting Period: January – December 20<mark>XX</mark>

Name of SKL/CNERC:

This report serves as a template for the SKLs and CNERCs to reflect on the effectiveness of the implementation measures adopted in achieving their goals and to formulate improvement plans and targets for the next year.

Section 1: Executive summary

Please summarise in no more than two pages about the plans/goals from last year, major achievements, whether key performance indicators were met, success in achieving the plans/goals, effectiveness of the approaches adopted, issues identified and the corresponding follow-up actions and action plans for next year.



Section 2: Facts and Figures

Please provide the figures below, supplement with details during the reporting period in the specified appendices and highlight the key observations on the three-year trend data.

| | | Number/Amour | nt |
|--|--------------------|--------------------|--------------------|
| - | 20 <mark>XX</mark> | 20 <mark>XX</mark> | 20 <mark>XX</mark> |
| Funding/Income sources | (Please provi | ide details in Ap | pendix 1 and 2) |
| Funding from Hong Kong or overseas | | | |
| government, government-related | | | |
| organisations or institutions or industries | | | |
| Funding from the Mainland Government | | | |
| (state-level or provincial-level) | | | _ |
| Others | | | |
| Funding from consultancy projects | | | |
| Funding from commercialisation of research and development (R&D) outcomes | | | |
| Sponsorships/Donations | | | |
| Others (please specify): | | | |
| Total | | | |
| Ongoing projects | | | |
| New projects | N | I/A | |
| Total | | | |
| Talent cultivation | (Pleas | e provide details | in Appendix 3) |
| Research Assistant Professors (RAPs) | | | |
| Postdoctoral fellows | | | |
| PhD students | | | |
| MPhil students | | | |
| Total | | | |
| Academic exchange activities | (Pleas | e provide details | in Appendix 4) |
| Conferences organised/co-organised | | | |
| Conferences participated | | | |
| Outbound visits | | | |
| Inbound visits | | | |
| Visiting scholars | | | |
| Others (please specify): | | | |
| Public Access and Science Communication | (Pleas | e provide details | in Appendix 5) |
| Seminar/ Popular science talk | | | |
| Summer camp | | | |
| Media coverage/ interview | | | |



| | (Version: March 2023) | | | |
|---|-----------------------|--------------------|--------------------|--|
| | | Number/Amount | | |
| | 20 <mark>XX</mark> | 20 <mark>XX</mark> | 20 <mark>XX</mark> | |
| Others (please specify): | | | | |
| Tota | 1 | | | |
| Publications | (Pleas | se provide details | in Appendix 6) | |
| Journal articles | | | | |
| Books | | | | |
| Book chapters | | | | |
| Others (please specify): | | | | |
| Tota | 1 | | | |
| Awards and recognition | (Pleas | se provide details | in Appendix 7) | |
| Local awards/recognition | | | | |
| National awards/recognition | | | | |
| International awards/recognition | | | | |
| Others (please specify): | | | | |
| Tota | 1 | | | |
| Patents | (Pleas | se provide details | in Appendix 8) | |
| Patents filed | | | | |
| Patents granted | | | | |
| Active licences | | | | |
| Use and Sharing of Instruments and Equi | pment | | | |
| Booking hours | | | | |
| Number of users | | | | |

Key observations from the above three-year trend data:



Section 3: R&D Directions and Outcomes

(Version: March 2025)

Please describe the R&D directions and provide up to three examples of representative outcomes and their societal impact, especially related to the 14th Five-Year Plan for the National Economic and Social Development, and the major national science and technology projects.

Section 4: Technology Transfer/Commercialisation of R&D Outcomes

Please provide up to three examples of success story about the technology transfer/ commercialisation of R&D outcomes.



Section 5: Industrial, Regional, National and International Collaboration

Please provide up to three examples of industrial, regional, national or international collaboration, e.g. joint industrial products or applications, joint publications, joint supervision of RPg students, etc.

Section 6: Interdisciplinary Research and Collaboration

Please describe the efforts in promoting interdisciplinary research and collaboration, e.g. interdisciplinary research projects, engagement of PolyU researchers in different disciplines, scholarly activities, submission of interdisciplinary research proposals for funding, etc. **Please** provide the list of PolyU researchers in Appendix 9

Section 7: Advisory and Management Bodies

Please give a brief report on the major issues discussed by the Academic Committee (for SKLs) or Engineering Technology Committee (for CNERCs) and the Management Committee. Please provide the composition members and the meeting minutes in **Appendices 10 and 11**.



Section 8: Evaluation

Please evaluate the operation and performance of the SKL/CNERC, identify any issues/challenges and suggest measures to be taken.

Section 9: Plan for Next Year

Please illustrate the plan for next year with measurable targets and concrete timeline.

| | Planned target/ initiative | Implementation plan | Measurable target/ Expected outcome | Timeline |
|---|-------------------------------|---------------------|--|----------|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| | | | | |
| | | | | |

Section 10: Website updates (New section added)

Please tick " $\sqrt{}$ *" as appropriate and provide reason(s) if the information has not been updated on the website.*

- 1. Information in Sections 2 to 6 has been updated on the website.
 - \Box Yes, information in the following section(s) has been updated on the website:
 - □ Section 2: Facts and Figures
 - □ Section 3: R&D Directions and Outcomes
 - Section 4: Technology Transfer/Commercialisation of R&D Outcomes



(Version: March 2025)

- Section 5: Industrial, Regional and International Collaboration
- □ Section 6: Interdisciplinary Research and Collaboration

| | No |
|--|------------|
| | Reason(s): |
| | |
| | |
| | |

2. Please elaborate on other major updates and enhancements, if any, on the website.

Submitted by:

Name:Position:Name of SKL/CNERC:Date:



Appendix 1

Research Projects and Their Related Funding/Sponsorships/Donations during the Reporting Period

| No. | Project title | Name of PI or Co- PI | Project duration (start date – end date) | PGMS project ID | Total funding* (HK\$) ≥ HK\$2M (Funding Scheme) | Funding amount for this Unit* (HK\$) ≥ HK\$2M | Sponsorship/ Donations* Amount (HK\$) (Company/org. name/person) ≥ HK\$2M | OptionalFunding/Sponsorship/ Donations*Amount (HK\$)(Funding schemeCompany/org.name/person)< HK\$2M |
|------|---------------|----------------------------|---|-----------------------|---|--|--|---|
| e.g. | | | 1 Jan 2024- 31 Dec 2024 | P00556xxx | e.g. 2,500,000 Theme-Based Research Scheme (TRS) | e.g. 1,000,000 | e.g. 2,000,000 (Mr. XXX) | e.g. 300,000 (Mr. XXX) |
| 1 | | | | | | | | |
| 2 | | | | | | | | |
| 3 | | | | | | | | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |
| 6 | | | | | | | | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| | Total | | | | | | | |

Note:

Please indicate with an asterisk (*) if the funding, sponsorship or donation is newly received during the reporting period.



Appendix 2

Income from Commercialisation of Research and Development (R&D) during the Reporting Period

| No. | Project title | Name of PI or Co-PI | Nature of the commercialisation generated | Project duration (start date – end date) | Total Income (HK\$)* |
|-----|---------------|---------------------|---|---|----------------------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| | | | | Total | |

Note:

Please indicate with an asterisk (*) if the income of commercialisation is newly received during the reporting period.



Appendix 3

List of RAPs, Postdoctoral Fellows, PhD Students and MPhil Students during the Reporting Period

| No. | Name | Position | School/Department | Supervisor and co- supervisor | Percentage of time contributed to the SKL/CNERC (%) |
|-----|------|----------|-------------------|----------------------------------|---|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |



Appendix 4

| No. | Date | Type of academic exchange activities (e.g., conferences organised, co-organised and participated, outbound/inbound visit, etc.) | SKL/CNERC member(s) involved |
|-----|------|--|------------------------------|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |

List of Academic Exchange Activities during the Reporting Period



Appendix 5

List of Public Access and Science Communication during the Reporting Period

| No. | Date | Type of Science Communication (e.g., Seminar, talk, media coverage, interview etc.) | SKL/CNERC member(s) involved | URL of the webpage (if any) |
|-----|------|---|---------------------------------|--------------------------------|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |



Appendix 6

| No. | Author(s) (Please list all the authors and indicate the SKL/CNERC members in bold letters.) | Details (e.g. paper title, journal name, publication year, volume and issue numbers, page numbers) | Name of regional/international collaborating organisation(s) |
|-----|--|--|--|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |

List of Publications during the Reporting Period



Appendix 7

List of Awards and Recognition Received during the Reporting Period

| No. | SKL/CNERC member(s) | Name of award/recognition | Type of award/recognition (Please tick " $$ " as appropriate.) | | |
|-----|---------------------|---------------------------|--|----------|---------------|
| | | | Local | National | International |
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |



Appendix 8

List of Patents Granted during the Reporting Period

| No. | SKL/CNERC member(s) involved | Title of the patents granted | Country | Date |
|-----|---------------------------------|------------------------------|---------|------|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |



Appendix 9

List of PolyU Researchers Involved in the Research Projects

| No. | Name of the PolyU Researcher | Position | School/ Department | Title of the interdisciplinary research/collaboration | Type of interdisciplinary research/collaboration (e.g. scholarly activities, submission of research proposals for funding, etc.) | Date |
|-----|------------------------------------|----------|-----------------------|---|---|------|
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |
| 5 | | | | | | |
| 6 | | | | | | |
| 7 | | | | | | |
| 8 | | | | | | |
| 9 | | | | | | |
| 10 | | | | | | |



Appendix 10

Meeting Minutes of the Academic Committee/Engineering Technology Committee* (*Please delete as appropriate.)

- Please provide the composition of the Committee
- *Please attach the minutes.*



Appendix 11

Meeting Minutes of the Management Committee

- Please provide the composition of the Committee
- *Please attach the minutes.*