Unnamed area

Session 1 : Issues/challenges faced in R&D expenditure

BE 1

Gross Domestic Expenditure in R&D (GERD)

- Current Expenditure
  - R&D personnel labour cost
  - Materials, supplies, equipment & services to support R&D activities
- Gross Fixed Capital Expenditures
  - Land & Building
  - Machinery & Equipment
  - Capitalized computer software
  - Other IP Products

DOKUMEN DIPERAKUI BENAR

MOHAMAD MUZAFFAR ABDUL HAMID
TIMBALAN PENGARAH
PCD

1 LIst as many issues as possible..

- Funding
- Overlapping R&D function
- Innovation Culture
- Lacking of fund
- Early education system do not promote creativity
- Data which sektor yang menurun dari segi peruntukan tidak tersedia.
- Need synergy across all ministries/agencies to drive national agenda/priority area/focus area etc
- Mismatched of expertise and field of work
- Type of research - now more on digital
- Lack of adoption of research output. Reduce motivation of reseachers.
- Focus to commercialize the output. Less fund for new research.
- Access to Specialized Assets to conduct meaningful research in semiconductors.
- Lab to Market Challenge
- Collaboration paperwork process/depends on each organization TOR
- Lack of leadership and capability to drive innovation
- Limited collaboration between Industry and university & research institute
- **Low taker for commercialisation**
- Gap between RI - industries
- Transparencies or visibility of targeted R&D allocation (how much allocation, duration, which TRL, etc)
- Take a long time to meet the customer expectation. Best solution buy technology from others.
- Kurang kolaborasi dan kerjasama antara Kerajaan dan Industri-disyorkan untuk diadakan sesi dialog secara berkala bagi membantu Industri
- Access to specialized Skill sets
- Market Readiness/ Access

2 List down top 5 issues

	Why it become an issue?	What can be done to solve it?	Who should involve in the solution?	How to implement it?	When can be implemented/can see the result
Issue #1 Lack of Funding	Focus to commercialize the output. Less fund for new research. Bergantung kepada EPU berdasarkan prestasi terdahulu Low budget/allocation from Industry player Transparencies or visibility of targeted R&D allocation (how much allocation, duration, which TRL, etc) Proses mendapatkan kelulusan agak sukar-lebih selesa menggunakan peruntukan dalaman	Memudahkan proses mendapatkan peruntukkan atau geran . Initiatif sekarang : Klinik Dana Review semula kehendak EPU berdasarkan ROI supaya peluang untuk mendapatkan geran penyelidikan lebih tinggi-Transparencies or visibility of targeted R&D allocation (how much allocation, duration, which TRL, etc) Tambah peruntukan dana dan selaras dengan bidang keutamaan dalam DSTIN Due diligence with Angels Double tax deduction untuk R&D termasuk yang melibatkan commercialize activity	Industri EPU Kementerian berkaitan (MOSTI, KKMM-Jabatan Penerangan Malaysia)-dari segi hebahan, syarat, kos, bidang keutamaan dll) LHDN Universities/ Research Institutes	One stop center untuk mendapatkan dana-(contohnya Research Management Agency/Technology Transfer Office). Mudah untuk mendapatkan maklumat bagi dana-dana yang ditawarkan Kerajaan-public awareness di semua peringkat IP valuation kurang di Malaysia (bidang perlu diperluaskan kombinasi bisnes dan undang-undang)	Short term-Perancangan berdasarkan Rancangan Malaysia (RP1, RP2) Short term-Yearly budget untuk Industri Long-Term-Rangka Kerja 10-10 MySTIE/DSTIN 2021-2030 Medium term-More effective R&D governance -RMA to be implemented soon
Issue #2 Type of Research	Focus on STIE including digitalization Collaboration paperwork process/depends on each organization TOR Overlapping R&D function Lack of adoption of research output. Reduce motivation of reseachers. Focus to commercialize the output. Less fund for new research.	Access to Specialized Assets to conduct meaningful research in semiconductors Access to specialized Skill sets Kumpulkan pakar sesuatu bidang (contohnya plastik) dan gunakan kepakaran mereka untuk membangun dan membudayakan inovasi dari segi produk atau proses	Industri EPU Kementerian berkaitan (MOSTI, KKMM-Jabatan Penerangan Malaysia)-dari segi hebahan, syarat, kos, bidang keutamaan dll) Universities/ Research Institutes	Perlukan satu pangkalan data berkenaan kepakaran / perlu hebahan berkenaan inisiatif sedia ada (contohnya MYHRSTI) Kolaborasi antara industri dan IPT	Short term-Perancangan berdasarkan Rancangan Malaysia (RP1, RP2) Short term-Yearly budget untuk Industri Long-Term-Rangka Kerja 10-10 MySTIE/DSTIN 2021-2030
Issue #3 Human Resource	Lack of leadership and capability to drive innovation Mismatched of expertise and field of work Engineer more to development rather than fundamental Access to specialized Skill sets Early education system do not promote creativity Kekurangan pakar dalam sesuatu bidang sehingga terpaksa menggaji warga asing Transfer knowledge to all Silibus pengajian agak sukar untuk dirombak	Universiti digalakkan untuk sentiasa mengemaskini silibus pembelajaran berdasarkan keperluan pasaran more engagement dengan industri dengan lebih kerap untuk mendapatkan maklum balas terkini	Industri EPU Kementerian berkaitan (MOSTI, KKMM-Jabatan Penerangan Malaysia)-dari segi hebahan, syarat, kos, bidang keutamaan dll) Universities/ Research Institutes	Repository for researchers-RISE-perlu lebih hebahan Galakkan tenaga pengajar membuat sabatikal di industri (sekurang-kurangnya 6 bulan supaya lebih efisien) Industrial training-more than 3 months	Short term-Perancangan berdasarkan Rancangan Malaysia (RP1, RP2) Short term-Yearly budget untuk Industri Long-Term-Rangka Kerja 10-10 MySTIE/DSTIN 2021-2030
Issue #4 Market Challenge	Market Readiness/Access-KPI diberatkan sedikit berdasarkan keperluan pasaran supaya fokus lebih kepada penyelesaian masalah Kekurangan dana bagi urusan Intellectual Property Take a long time to meet the customer expectation. Best solution buy technology from others.	Anjurkan webinar berkaitan isu tertentu Public awareness dari awal bermula dari proses pemfailan paten sehingga pated diperoleh. Imbangkan apa yang dipaten dan apa yang nak dipertimbangkan sebagai trade secret	Industri EPU Kementerian berkaitan (MOSTI, KKMM-Jabatan Penerangan Malaysia)-dari segi hebahan, syarat, kos, bidang keutamaan dll) Universities/ Research Institutes	Adakan center Specific COE based on industries Perlu ada pakar yang multi-tasking yang boleh bantu industri polisi supaya proses R&D merangkumi proses pembuatan (berkaitan national security) dilakukan dalam negara	Short term-Perancangan berdasarkan Rancangan Malaysia (RP1, RP2) Short term-Yearly budget untuk Industri Long-Term-Rangka Kerja 10-10 MySTIE/DSTIN 2021-2030
Issue #5 Collaboration between Ministries, Industries & Higher Institutions	Gap between RI - industries Early education system do not promote creativity Kurang kolaborasi dan kerjasama antara Kerajaan dan Industri-disyorkan untuk diadakan sesi dialog secara berkala bagi membantu Industri Limited collaboration between Industry and university & research institute	Diadakan sesi dialog secara berkala bagi membantu Industri Kerjasama dengan Kerajaan Negeri bagi bidang berkaitan Modul dalam CREST	Industri EPU Universities/ Research Institutes Kementerian berkaitan (MOSTI, KKMM-Jabatan Penerangan Malaysia)-dari segi hebahan, syarat, kos, bidang keutamaan dll)	Foster R&D Collaboration building of research network for example CREST is an excellent tripartite entities focussing on specific industrial problem and issues Better R&D communication to ensure journalist, writers and even the public is able to appreciate the differences between R&D, innovation, technological advancement and other terminologist. The communication strategy should be aimed not only at the public but also industry as they provide data for this efforts and the expectation that will lead to better data collection in the fiture. Improve R&D ecosystem	Short term-Perancangan berdasarkan Rancangan Malaysia (RP1, RP2) Long-Term-Rangka Kerja 10-10 MySTIE/DSTIN 2021-2030 Short term-Yearly budget untuk Industri

Session 2 : Crafting Strategy

Use this template to visualize and define different components of a budding or existing strategy.

List of suggestions / request / expectation in R&D

Challenges

What problems are your trying to solve?
What obstacles must you overcome?

- Human Resource
- Market Challenges

Aspirations

What are the ideal desired outcomes?
What do you want to achieve?

- Pendedahan Techno-usahawan kepada kurikulum degree Cadangan 3 + 1 year kat industri
- Silibus kejuruteraan atau teknikal perlu dimasukkan elemen-elemen automation digitalisation
- Silibus pembelajaran di institusi pengajian tinggi sentiasa dikemaskini dan terkini
- Anjurkan webinar berkaitan isu tertentu
- Public awareness dari awal bermula dari proses pemfailan paten sehingga paten diperoleh.
- Proposed industry training at final semester at least 6 months
- Graduan dalam bidang berkaitan mencukupi untuk memenuhi keperluan pasaran
- Silibus menepati keperluan pasaran
- Imbangkan apa yang dipaten dan apa yang nak dipertimbangkan sebagai trade secret
- National IP Bank for emerging technology
- Galakkan tenaga pengajar membuat sabatikal di industri (sekurang-kurangnya 6 bulan supaya lebih efisien)
- more engagement dengan industri dengan lebih kerap untuk mendapatkan maklum balas terkini
- Proposal datang dari syarikat contoh company need student to solve problem
- Allign research with market requirement by having closer collaboration and engagement with industry
- Adakan one stop-center berkaitan dana bagi memudahkan proses permohonan hingga kelulusan
- Galakkan buat Master & PhD 2 in 1-syarikat tidak hilang staff semasa cuti belajar dan syarikat masa yang sama boleh tingkatkan kemahiran dan kepakaran staff
- Roll out the CREST Industry Collaboration model for other sector
- To review remuneration scheme
- Perlu ada pakar yang multi-tasking yang boleh bantu industri
- Policy to encourage indigenous technology for strategic applications (defence, security etc)

Focus Areas

What is the scope of the strategy?
What will you focus on for the most impact?

- Mempertingkatkan nilai pasaran produk/perkhidmatan STIE local
- Enhance local value add to manufactured product
- Memperkukuhkan modal insan/bakat dalam bidang STIE
- Menambahbaikan / mempermudahkan penyertaan modal insan dalam sektor industri

Guiding Principles

How will you overcome the challenges?
What specific mantras will guide your teams?

- Silibus menepati keperluan pasaran-flexible/update etc
- more engagement dengan industri dengan lebih kerap untuk mendapatkan maklum balas terkini

Action Plan

What types of activities solve the problems?
What capabilities achieve your aspirations?

- Strategi 1: Mempertingkatkan nilai pasaran produk / perkhidmatan STIE local
- Strategi 2: Memperkukuhkan modal insan / bakat dalam bidang STIE
- Strategi 3: Menambahbaik dan mempermudahkan penyertaan modal insan dalam sektor industri
- Strategi 4: Enhance local value add to increase local content
- Proposed industry training at final semester at least 6 months
- Graduan dalam bidang berkaitan mencukupi untuk memenuhi keperluan pasaran
- Silibus menepati keperluan pasaran
- Imbangkan apa yang dipaten dan apa yang nak dipertimbangkan sebagai trade secret
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- Silibus pembelajaran di institusi pengajian tinggi sentiasa dikemaskini dan terkini
- Anjurkan webinar berkaitan isu tertentu
- Public awareness dari awal bermula dari proses pemfailan paten sehingga paten diperoleh.

Outcomes

What metrics will be used to gauge success?
What types of measurements will you employ?

- Graduan yang memenuhi pasaran kerja
- Silibus terkini dan multi-disiplin contohnya bisnes dan kejuruteraan
- One-Stop Center untuk pengurusan dana

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