



# MYHACKATHON PENANG

## THEME 5: INOVASI ASAS PEMBANGUNAN



**PROBLEM STATEMENTS DOCUMENT**

Team Registration Starts: Thursday, 19 November 2020  
Start Of Hackathon: Thursday, 26 November 2020  
Submission Date: Wednesday, 2 December 2020  
Finalists Announced: Monday, 7 December 2020  
Finalists Bootcamp: Wednesday, 9 December 2020  
Pitching and Winners Announcement: Thursday, 10 December 2020

<https://myhackathon.com.my/>

*English Version*

# Hackathon 5

## THEME “*INOVASI ASAS PEMBANGUNAN*”



### OBJECTIVES

To enhance the contribution of innovation in driving economic growth and address socio-economic challenges.



### PROBLEM STATEMENTS

- **INOVASI 1:** “Quadruple helix” platform for research/science, policy, industry and community/society to communicate and monitor national innovation
- **INOVASI 2:** One-stop center or platform for start-ups to get advisory, startup monitoring, tracking and reporting.
- **INOVASI 3:** One-stop Smart platform for government funding application, processing, monitoring, tracking and reporting - using AI and Big Data Analytics to enhance the insights and impact
- **INOVASI 4:** Digital solution for continuous engagement with the public to inculcate or promote of STI (Science, Technology and Innovation) using interactive learning
- **INOVASI 5:** Interactive and gamified platform to increase the awareness and interest of science and space technology for students.

# Hackathon 5

## THEME “*INOVASI ASAS PEMBANGUNAN*”

### Main Objective

To enhance the contribution of innovation in driving economic growth and address socio-economic challenges.

### PROBLEM STATEMENT: INOVASI 1

”Quadruple helix” platform for research/science, policy, industry and community/society to communicate and monitor national innovation

## PROBLEM STATEMENT 1

### CONTEXT OR BACKGROUND

Creating an environment where entrepreneurship and innovation can thrive is a priority for our government. Over the years, policies and programmes are scattered across several agencies and generally in silos. The government require a platform to ensure **4 major actors: policy makers, researchers, industry and community** (startups etc) to interact, communicate and report - in order to capture national innovation that is the direct output of govt programmes and funding.

| Current Status  | Pain Points   | Desired State  |
|---|---|--|
| <ul style="list-style-type: none"><li>Akademi Sains is the thought leader and leading organization for science research, policy forming and community building in the country</li></ul> | <ul style="list-style-type: none"><li>Difficult to track the long-term impact of nationally funded research and innovation</li><li>There is no platform where researchers, industry, community and policy markers can interact</li><li>Difficult to measure the national innovation index when programmes and tracking are not integrated</li></ul> | <p>A digital solution that allows the four major actors to <b>interact and engage</b> with the aim of</p> <ul style="list-style-type: none"><li>tracking nationally funded research and innovation from technology creation to commercialization (as defined as licensed, sold, adopted, exported etc)</li><li>Improving the National Innovation Index</li></ul> |
| Target Groups   |   | Potential Impact   |
| <ul style="list-style-type: none"><li>Public/Private Researchers</li><li>Industry</li></ul>   |   | <ul style="list-style-type: none"><li>Increasing tech output as a contribution to GDP</li></ul>  |

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## THEME “*INOVASI ASAS PEMBANGUNAN*”

### Main Objective

To enhance the contribution of innovation in driving economic growth and address socio-economic challenges.

### PROBLEM STATEMENT: INOVASI 2

One-stop center or platform for start-ups to get advisory, startup monitoring, tracking and reporting.

## PROBLEM STATEMENT 2

### CONTEXT OR BACKGROUND

Creating an environment where entrepreneurship and innovation can thrive is a priority for our government. MaGIC and other agencies attempt to assist early stage startups to find their footing and eventually nurture them to become regional or global players. These startups have accelerated growth and contribute to the nation as employers, technology producers, attract foreign investors, pay local taxes etc.

#### Current Status

- Entrepreneurship programmes are spread across many ministries and agencies
- But, there is no one-stop centre where someone can go to as a starting point
- Monitoring the growth of companies after a programme is hard and require much resource

#### Pain Points

- Too many information portals but not integrated information
- Questions and queries from startups or new founders are repeated and not turned to FAQ- or institutional memory (or common knowledge)
- Startups and businesses need different types of help at different stages (seed, growth, expansion, maturity) - and it is hard to find quick access to programmes that are right-suited

#### Desired State

- A digital solution that is:
- easy to use
  - allows startups and new founders to find advisory to start a business
  - allows agency to monitor and track growth of businesses
  - allows agency to get a reports (or snapshots) of business and founders for better programme planning.

#### Target Groups

- Would-be entrepreneurs
- Startups

#### Potential Impact

- 440,000 newly registered business and companies each year

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## THEME “*INOVASI ASAS PEMBANGUNAN*”

### Main Objective

To enhance the contribution of innovation in driving economic growth and address socio-economic challenges.

### PROBLEM STATEMENT: INOVASI 3

One-stop Smart platform for government funding application, processing, monitoring, tracking and reporting - using AI and Big Data Analytics to enhance the insights and impact

## PROBLEM STATEMENT 3

### CONTEXT OR BACKGROUND

There are scores of grants available for almost all stage of businesses in Malaysia. However, finding “the right one” at a particular stage of your business require time, resource, research, networking, understanding eligibility and more. Also, each agency will require you to produce more or less the same information: company information, shareholding structure, business profile etc. Many give up before even applying.

|  |  |   |
|--|--|---|
| <p><b>Current Status</b></p> <ul style="list-style-type: none"> <li>Malaysia has healthy growth of new businesses/companies</li> <li>Some businesses survive by merely acquiring one grant after another</li> <li>Grant disbursement agencies work in silos from each other</li> </ul> | <p><b>Pain Points</b></p> <ul style="list-style-type: none"> <li>Too many “grant-repreneurs” that take advantage of an un-integrated system</li> <li>Too many grant application forms (that require more or less the same information from the grant applicant)</li> <li>Grant applications are manually processed and administered</li> <li>Unable to forecast effective govt assistance when business trends change quickly.</li> <li>Limited information for grant assessor in assessing application (trends, data, policy, reports)</li> </ul> | <p><b>Desired State</b></p> <p>A digital solution that is:</p> <ul style="list-style-type: none"> <li>easy to use</li> <li>allows startups to find the right grant quickly using AI and BDA</li> <li>Improve grant evaluation process with AI and BDA</li> <li>predicts “grant-trepreneur warning/alert” based on AI or Big-Data analytics</li> <li>uses AI to recommend the “next stage” grants eligible to that business</li> </ul> |
| <p><b>Target Groups</b></p> <ul style="list-style-type: none"> <li>Would-be entrepreneurs</li> <li>Startups</li> </ul>   |  | <p><b>Potential Impact</b></p> <ul style="list-style-type: none"> <li>7.6 million businesses and companies</li> </ul>   |

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## THEME “*INOVASI ASAS PEMBANGUNAN*”

### Main Objective

To enhance the contribution of innovation in driving economic growth and address socio-economic challenges.

### PROBLEM STATEMENT: INOVASI 4

Digital solution for continuous engagement with the public to inculcate or promote of STI (Science, Technology and Innovation) using interactive learning

## PROBLEM STATEMENT 4

### CONTEXT OR BACKGROUND

The government wish to establish a scientific, innovative and progressive society, that is not only a consumer of technology but also a contributor to the scientific and technological civilization of the future. Continuous engagement with the public in promoting STI will leapfrog the awareness and understanding the importance of SI. Data and feedback from public can contribute the effectiveness of initiatives and strategic planning for STI.

#### Current Status

- Promotional for STI is done in multiple format and channel
- Lack of continuous engagements with public in promoting STI
- Lack of interactive content with latest technology engagement.
- Lack of data to measure effectiveness of initiative and programs in inculcate STI

#### Pain Points

- Lack of interesting and latest technology in engaging with public
- Difficult to provide consistent messaging or learning or knowledge after the first touch-point
- No centralize data on initiative and programme in promoting STI

#### Desired State

- A digital solution that:
- provide continuous engagement with public in promoting STI.
  - gather data for analysis of initiative effectiveness
  - engagement with interactive learning about fundamental science with new technologies (AR / VR)
  - can be a platform to create communities that are interested and active in STI

#### Target Groups

- Citizen
- Parents

#### Potential Impact

- Malaysian inculcate STI

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## THEME “*INOVASI ASAS PEMBANGUNAN*”

### Main Objective

To enhance the contribution of innovation in driving economic growth and address socio-economic challenges.

### PROBLEM STATEMENT: INOVASI 5

Interactive and gamified platform to increase the awareness and interest of science and space technology for students.

## PROBLEM STATEMENT 5

### CONTEXT OR BACKGROUND

Science, Technology and Innovation (STI) is one of the main pillar in MOSTI. Malaysia recognizes the needs for access to science and space capabilities to improve the services needed by the people, economic growth, socio-economic and national security. The National Space Agency (ANGKASA), The Planetarium and Pusat Sains Negara play important roles to promote science and space technology among Malaysians especially for students.

#### Current Status

- Pusat Sains Negara and The Planetarium runs programs to encourage science, and space tech curiosity
- There are on-site and outreach programmes
- Exhibits and programmes are updated to encourage return visitors

#### Target Groups

- Young Malaysians
- Parents

#### Pain Points

- Unable to connect and interact with visitors or students IN-BETWEEN visits
- Difficult to provide consistent messaging or learning or knowledge after the first touch-point

#### References:

- Dasar Sains dan Teknologi Kebangsaan.
- Dasar Sains, Teknologi Dan Inovasi Negara
- National Space Policy 2030
- National Science, Technology and Innovation Policy (DSTIN)
- Malaysian Aerospace Blueprint 2030.

#### Desired State

A digital solution that:

- is easy to use
- provide interactive and gamified learning about science and space
- encourage loyalty and frequent visits to Pusat Sains Negara and The Planetarium
- can be a platform to create communities that are interested and active in science and space tech
- Provide ability to PSN and Planetarium monitoring the effectiveness of their program

#### Potential Impact

- 9.3 million children under 18 years old (2019)

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## Thank You!

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