Targeted New Product Development & Innovation (NPDI) Funding Scheme
New Product Development & Innovation (NPDI) - bridging between R&D and Commercialization

Open and Targeted R&D
> 120 projects

New Product Development & Innovation
Prototype, MVP, Validation

Ecosystem & biz enhancement
Creating New Value
Innovation Management

1. Idea Generation
2. Idea Screening
3. Concept Development
4. Business Analysis
5. Product Testing
6. Technical Implementation
7. Commercialization

New Product Development
Successful entrance to the market

A learning platform and collection of tools that guide the user through the seven stages of the new product development process.
# IP Harvesting Process

<table>
<thead>
<tr>
<th>Project</th>
<th>Project Outcome</th>
<th>IP Creation</th>
<th>Ideation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement and Learning in the Process</td>
<td>IP Cataloging &amp; Profiling</td>
<td>Ideation for Vertical and Further Action</td>
<td></td>
</tr>
</tbody>
</table>

## IP Harvesting → Expansion of IP and Ideation into Product, Process, Services

1. **Hardware & Product**
2. **Software & Tools**
3. **Solutions**
4. **Consultancy**

- **Technology Architect**
- **Technology Implementer**
- **Technology Recipient /Market**
Targeted New Product Introduction

• This is a new category of R&D grant termed as Targeted NPDI.
• It will be similar to Targeted R&D with emphasize to Minimum Viable Product or Proof Of Concept demonstration at market.
• Market and Business Plan will be required as part of Product Development strategy.
• The evaluation and review will be held in a pitching and open interview sessions with technical and business review panel.
• The Research Grant Agreement will include forward looking clause on commercial benefit to CREST in form of equity, licensing or revenue share.
• The award and disbursement of the grant will be subjected to
  1. Recommendation of Technical and Business Panel
  2. CREST board approval
  3. Research Grant Agreement sign off process
Application Criteria

- The company incorporated in Malaysia with full Malaysian ownership with at least RM50,000 paid up capital
- The company has a proven technology and financial management plan and resources
- The project must lead to the development and delivery of prototypes or proof-of-concepts or products/solutions with good value proposition to the market
- Project duration is within 18 months period
- The project has not been completed as at the date of application and the project is not funded from any other agencies
- Project activities will be conducted in Malaysia and involve local engineering talents
Funding Utilization Condition

The Funding can be utilized for

- Engineer Salary - 50%
- Equipment, Tools or Software Purchase – 100%
- Raw Material Purchase – 100%
- Engineering Lab or Prototype Build Services – 100%
- IP Filing Related – 100%
- Certification – 100%
- Travel, Conferences and Seminar – 0 %
# Targeted NPDI focus

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>CREST R&amp;D Grant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Scope</td>
<td>Targeted New Product Development Introduction (Targeted NPDI)</td>
</tr>
<tr>
<td>Technology Level (TRL)</td>
<td>TRL 5 and Above</td>
</tr>
<tr>
<td>Duration</td>
<td>Within 18 month</td>
</tr>
<tr>
<td>Targeted Recipient</td>
<td>Malaysian Small Medium Enterprise</td>
</tr>
<tr>
<td>Project Targeted Output</td>
<td>Prototypes, Proof of Concept (POC) or Minimum Viable Products (MVP)</td>
</tr>
<tr>
<td>Panel</td>
<td>Open Interview Review by Industry, University, Business Professional</td>
</tr>
<tr>
<td>Agreement Scheme</td>
<td>Targeted Research Grant Agreement with additional look forward clause on Commercialization Phase</td>
</tr>
<tr>
<td>Commercialization Phase Option</td>
<td>Licensing Fee, Revenue Share, Equity</td>
</tr>
</tbody>
</table>
TRL Rating Explanation

**TRL 9**
- Actual technology proven through successful deployment in an operational setting

**TRL 8**
- Actual technology completed and qualified through tests and demonstrations

**TRL 7**
- Prototype ready for demonstration in an appropriate operational environment

**TRL 6**
- System/subsystem model or prototype demonstration in a simulated environment

**TRL 5**
- Component and/or validation in a simulated environment
## Proposal Information Required

<table>
<thead>
<tr>
<th>Section</th>
<th>Information Required</th>
</tr>
</thead>
</table>
| 1. Company / Partner                 | • Profile / Organization Chart  
• Curriculum Vitae of Directors / Key Personnel  
• Company Constitution & Ownership (Form 9, 24, 49)  
• Financial Statement |
| 2. The Proposal                      | • Describe the Technology / Product  
• What Problem or Area Being Addressed  
• Why We Should Address  
• How Will We Address |
| 3. Market & Business Landscape       | • Define the Market or Business areas  
• Describe The Opportunity  
• Estimate The Size of Market or Business  
• Case Studies – if any |
| 4. Product Development               | • Define The Team and Stakeholders  
• Define the Stages  
• Schedule or Gantt Chart |
| 5. Product Business/Marketing        | • Business Model  
• Plan  
• Strategy |
| 6. Competition & Risk Management     | • Describe Competition  
• Identify Potential Risk Areas and Mitigation  
• Strength, Weakness, Opportunity, Threat Analysis |
| 7. Funding                           | • Why Needed  
• Where Will Be Used |
Company / Partner Profile

1. Company / Partner
   - Profile / Organization Chart
   - Curriculum Vitae of Directors / Key Personnel
   - Company Constitution & Ownership (Form 9, 24, 49)
   - Financial Statement
The Proposal

2. The Proposal

- Describe the Technology / Product
- What Problem or Area Being Addressed
- Why We Should Address
- How Will We Address

NABC a tool to further structure your Value Proposition

<table>
<thead>
<tr>
<th>Need</th>
<th>Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the customers need?</td>
<td>Is there already an idea how to address the need?</td>
</tr>
<tr>
<td>How does the market develop?</td>
<td>Are there alternatives?</td>
</tr>
<tr>
<td>Which internal need/pains does the company have</td>
<td>Which experience do we want to create for the customers?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Competition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which benefits does the customer have?</td>
<td>Are there alternatives?</td>
</tr>
<tr>
<td>Which benefits do the company and/or their suppliers and partners have</td>
<td>What happens if we do nothing?</td>
</tr>
</tbody>
</table>

Matthias Pohle, Sven Krause
3. Market & Business Landscape

- Define the market or business areas
- Describe The Opportunity
- Estimate The Size of Market or Business
- Case Study
## Product Development

### 4. Product Development
- Define The Team and Stakeholders
- Define the Stages
- Schedule

<table>
<thead>
<tr>
<th>Concept</th>
<th>Research</th>
<th>Analysis</th>
<th>Develop</th>
<th>Launch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Idea Generation</td>
<td>Assess Market</td>
<td>Business Analysis</td>
<td>Product Development</td>
<td>Go to Market</td>
</tr>
<tr>
<td>- Requests</td>
<td>- Segment &amp; size</td>
<td>- Cost/Benefit</td>
<td>- Technical Specs</td>
<td>- Marketing Plan</td>
</tr>
<tr>
<td>- Customer Pain</td>
<td>- Growth potential</td>
<td>- Resources Required</td>
<td>- Prototyping</td>
<td>- Sales Training</td>
</tr>
<tr>
<td>- Market Studies</td>
<td>- Customer needs</td>
<td>- Capital Expenses</td>
<td>- Trial Production</td>
<td>- Distribution Plan</td>
</tr>
<tr>
<td>- Legislation</td>
<td>- Legal issues</td>
<td>- Profitability/Margin</td>
<td>- Testing &amp; QA</td>
<td>- Collateral Design</td>
</tr>
<tr>
<td>- Competitors</td>
<td>- Competition</td>
<td>- Anticipated Sales</td>
<td>- Test Market Selling</td>
<td>- Set Launch Date</td>
</tr>
</tbody>
</table>

### Key deliverables
- Products concept docs
- Market Research Report
- Market Req. Document
- Product Definition Statement
- Business Case
- Profitability Analysis
- Product Req. Document
- Product Dev. Schedule
- Product Testing Report
- Product Req. Document
- Key deliverables
- Product Launch Plan
- Product Launch Budget
- Product ROI Forecast
- Target Launch Date Set
Business Plan vs. Business Model vs. Strategy

Why vs. What vs. How = Storyboard vs. Panel vs. Method = Script vs. Plot vs. Process

Business Plan

“Business Plan” describes from present to future
how a business sustainably makes profit

Business Model

“Business Model” maps the logic of
how a business sustainably makes profit

Environmental Factors

Execution Mindset: Company
(Project: Milestones/Tactics/Product)

Experimentation Mindset: Startup

Present Business Model

Strategy

(OTHER Loop)

Future Business Model

How to get there (win)?
(What benefit/cost?)

Where must organization go?

C: Customer

Product/Service

Payment

S: Supplier

World-class Coaching on Lean Startup & Customer Growth Hacking for Less Than $10/Month: [http://businessmodels.ning.com](http://businessmodels.ning.com)
Business Strategy Coach. Dr. Rod King. rodkuhnking@gmail.com & [http://businessmodels.ning.com](http://businessmodels.ning.com) & [http://twitter.com/RodKuhnKing](http://twitter.com/RodKuhnKing)
6. Competition & Risk Management

- Describe Competition
- Case Studies – if any
- Identify Potential Risk Areas
- Strength, Weakness, Opportunity, Threat Analysis

Risks - Managing Competitive Pressures

Requires a change in Business Model

- Demanding customers
- Pressure on margins, growth, cost
- Changing market boundaries and new channels
- Aggressive global competition
- Industry consolidation and alliances
- Hyper-competition & Globalisation
- Environmental and risk issues
- Environmental and risk issues
- Supply & Demand Coordination
- Shortening product life cycles
- Speed of technology change
- Stakeholder pressures
- Catastrophic events
- Green SCM
- Compliance

Serving localised customer with complex supply lines
Funding

7. Funding
- Why Needed
- Where Will Be Used
**Innovation – Innovator – Investment Assessment**

<table>
<thead>
<tr>
<th>INNOVATION – PRODUCT/SERVICES, DEVELOPMENT PLAN, MARKET, VALUE, PRODUCT ROADMAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>The product and services is clearly described</td>
</tr>
<tr>
<td>NPI development, trial use or market test plan available</td>
</tr>
<tr>
<td>Value and benefit identified / available</td>
</tr>
<tr>
<td>Market and Competition space analysed and addressed</td>
</tr>
<tr>
<td>Potential product or services roadmap available</td>
</tr>
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<table>
<thead>
<tr>
<th>INNOVATOR – TECHNOLOGY, SKILLS, MANAGEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge or technology related to NPI</td>
</tr>
<tr>
<td>Business and management plan on this NPI</td>
</tr>
<tr>
<td>Organization and staffing required for this NPI</td>
</tr>
<tr>
<td>Technology or supply chain partners for this NPI</td>
</tr>
<tr>
<td>PR, communication, relationship with all stakeholders</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>INVESTMENT – BUDGET, COMPANY, INVESTORS, BUSINESS PLAN</th>
</tr>
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<tbody>
<tr>
<td>Budgetary plan available</td>
</tr>
<tr>
<td>Marketing plan available</td>
</tr>
<tr>
<td>Potential customer/s are identified</td>
</tr>
<tr>
<td>Investment plan identified / available</td>
</tr>
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<td>Investment partners identified / available</td>
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# Submission Checklist

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|                                      | ▪ Strength, Weakness, Opportunity, Threat Analysis  
| 7. Funding                           | ▪ Why Needed & Where Will Be Used  
|                                      | ▪ Where Will Be Used  

Submission and Enquiries

Submission and Enquiries about this Targeted New Product Development grant can be forwarded to

1. **Mr. Fouzun**
   - Email - fouzun@crest.my
   - Phone - 604-6520021

2. **Ms. Naja Mohammad**
   - Email - naja@crest.my
   - Phone - 604-6520020