COUNTER TRADE, LOCAL CONTENT & OFFSET:
A STRATEGY TOWARDS MAXIMIZING THE FOREIGN DEFENSE & SECURITY EQUIPMENT'S PURCHASE TO RESTORE INDONESIA DEFENSE INDUSTRY CAPABILITY

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SINGAPORE - 20/01/2022

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  Komite Kebijakan Industri Pertahanan; Sekretariat, Gd DI Panjaitan lantai 1, Jalan Merdeka Barat 13-14, Jakarta Pusat, Telp. 021.3488538 – 021 3828093, Fax. 021.3848410, email: infoKKIP@kkip.go.id

KKIP 2.mp4

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The importance of the National Policy in having a strong Defense Industry for Indonesia National Defense

- To build an advanced, strong, independent and competitive industry to support national defense and, national economic growth.
- Aimed to achieve a professional, effective, efficient and integrated defense industry to support national defense and, national economic growth.

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THE ESTABLIHEMENT OF THE DEFENSE INDUSTRY POLICY COMMITTEE

REFERENCE

01 BILL NUMBER 16 YEAR 2012 ON INDUSTRI PERTAHANAN

02 BILL NUMBER 11 YEAR 2020 ON CIPTA KERJA

03 GOVERNTMENT REGULATION NUMBER 76 YEAR 2014 ON MECHANISM OF COUNTER TRADE ON PROCUREMENT OF DEFENSE AND SECURITY EQUIPMENT FROM ABROAD

04 MINISTER OF DEFENSE REGULATION NUMBER 30 YEAR 2015 CONCERNING COUNTER TRADE, LOCAL CONTENT, AND OFFSETS IN THE PROCUREMENT OF DEFENSE AND SECURITY EQUIPMENT FROM ABROAD

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DUTIES & AUTHORITIES OF KKIP

PASAL – 21, UU-16 TAHUN 2012
PASAL-74-. UU NOMO 11 TAHUN 2020

1	Formulate strategic national policies in the field of Defense Industry
2	Develop and form a medium and long term Defense Industry master plan
3	Coordinate the implementation and control of the National Defense Industry policy
4	Coordinate foreign cooperation in order to advance and develop the Defense Industry
5	Synchronizing the determination of Alphahankam needs between Users and Industry Defense
6	Setting Defense Industry standards
7	Formulate funding and/or financing policies for the Defense Industry
8	Formulate mechanisms for selling and purchasing Defense and Security Equipment Tools produced by the Defense Industry to and from abroad
9.	Carry out monitoring and evaluation of the implementation of the Defense Industry policy on an ongoing basis periodically

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THE DEFENSE INDUSTRY POLICY COMMITTEE
KOMITE KEBIJAKAN INDUSTRI PERTAHANAN (KKIP)

BILL-16 YEAR 2012 AND PRESIDENTIAL DECREE NUMBER 59 YEAR 2013

CHAIRMAN , CEO AND EXEC TEAM OF KKIP

Function

- Formulate and Evaluate the Policy of Development and Utilization of the Defense Industries

Role/Responsibility

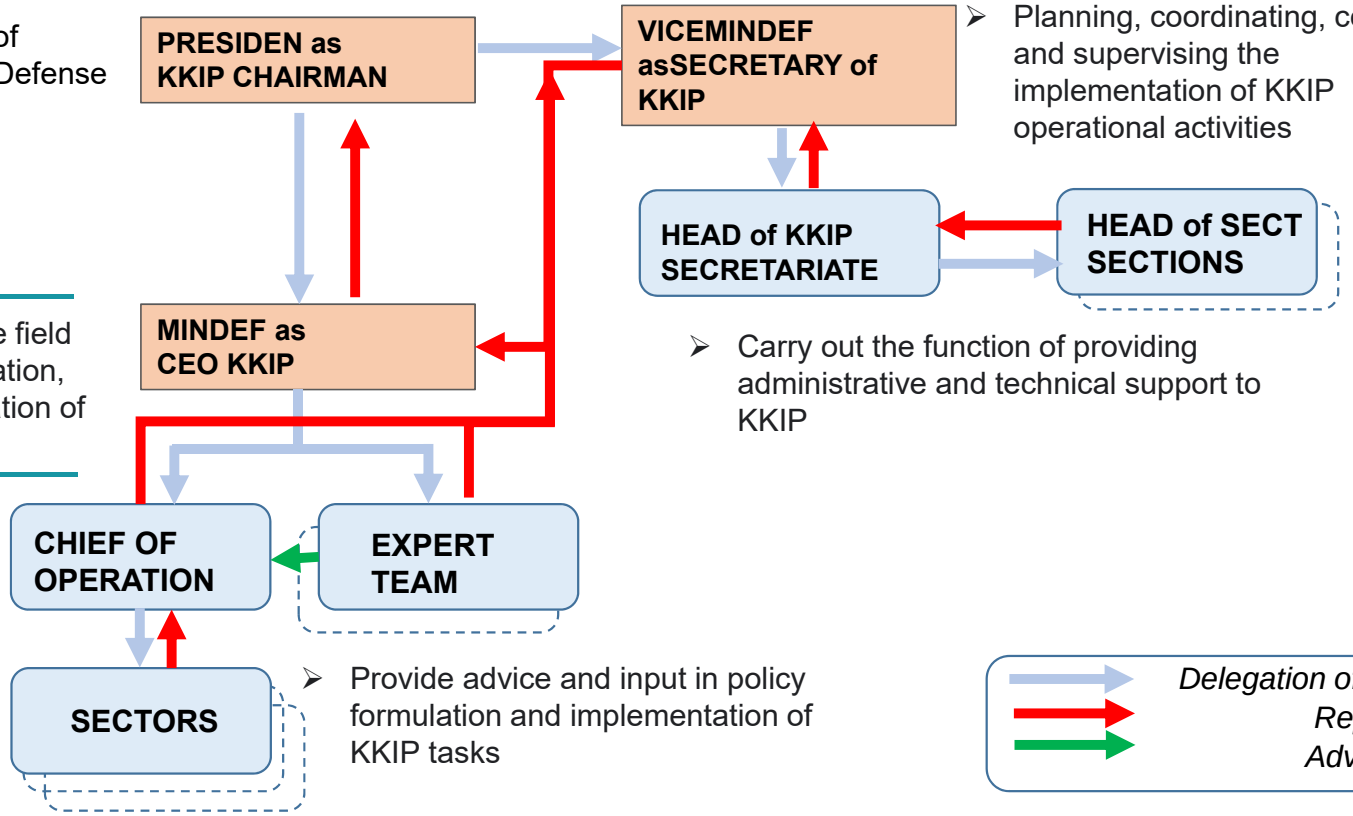
- Chapter 21 Bill Num.16/2012
- Bill Number 11 Year 2020

➢ To coordinate national policies in the field of planning, formulation, implementation, control, synchronization, and evaluation of the Defense Industry

➢ To coordinate national policies in terms of planning, formulation, implementation, control, synchronization, and evaluation of the Defense Industry

➢ To coordinate the implementation of KKIP field activities and coordinate the preparation of KKIP policy formulation materials

SECRETARY, EXP TEAM & SECRETARIATE OF KKIP



➢ Planning, coordinating, controlling, and supervising the implementation of KKIP operational activities

➢ Carry out the function of providing administrative and technical support to KKIP

➢ Provide advice and input in policy formulation and implementation of KKIP tasks

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PRESIDENTIAL DIRECTIVE AS CHAIRMAN OF KKIP AT SIDANG KKIP 13th APRIL 2021

1. Continues procurement of DefSec equipments (Alpalhankam)
2. To develop independency of Defense Industry
3. Change the paradigm of PURCHASE to become INVESTMENT

PRESIDENT EMPHASIS AS CHAIRMAN OF KKIP

1. Expedite the procurement strategic plan of Alpalhankam, which will be the reference for the development of Indhan's self sufficiency.
2. Defense spending is a defense investment to strengthen National DefInd
3. Synchronize the defense regulations, investment rules, and integrate it with the new Omnibus Law.
4. Alpalhankam procurement must completed and nothing stalled.

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DEFENSE SPENDING INTO DEFENSE INVESTMENT

TYPE OF ALPALHANKAM USER REQUIREMENTS

- Aircrafts(Fighters,Transporters and Helicopters)
- Naval Vessels (Submarine, FPB, OPV, Patrol, etc.)
- Tactical Land Vehicles
- Light Armaments, MCM, SCM
- Missiles/Rokects
- Radar
- Etc.

BUDGETING

PLN | PDN | RM

ACTIVITIES

- *MRO*
- Procurement
- *IDKLO JOINT PRODUCTION*
- *JOINT DEVELOPMENT*
- *JOINT VENTURE*
- NATIONAL R&D

TECHNOLOGY INTEGRATION

- HR
- WORK OPPORTUNITY
- ECOSYSTEM

- EXPORT
- *GLOBAL SUPPLY CHAIN*

- REVENUE & PROFIT

EXPECTED RESULT

✓ SELF SUFFICIENT DEFIND

✓ INCREASE *DETERRENT EFFECT*

✓ ECONOMIC GROWTH

PDN : PINJAMAN DALAM NEGERI (LOCAL LOAN)
PLN : PINJAMAN LUAR NEGERI (FOREIGN LOAN)
RM : RUPIAH MURNI (RUPIAH PURCHASE)

GENERAL TARGET

DEFENSE INDUSTRIES NATIONAL PRIORITIES

YEAR 2019 - 2024

DEFENSE INDUSTRIES CONTRIBUTION ON DEFENSE EQUIPMENTS PURCHASE

BASELINE 2019

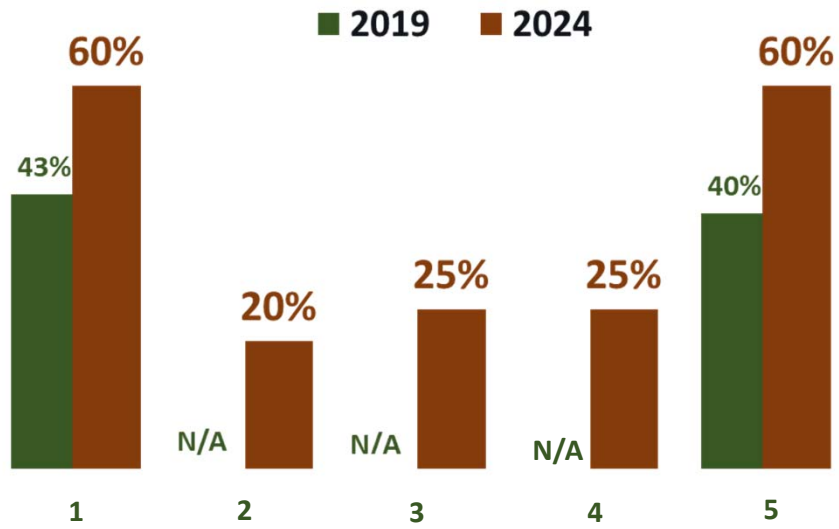
NATIONAL SOURCING : 43%

Components Contribution & Raw Materials	20%
Export Product	N/A
Components Export (GSC)	N/A
Local MRO	N/A
Defense Equiptments Operational Readiness	40%

TARGET 2024

NATIONAL SOURCING: 60%

Components Contribution & Raw Materials	60%
Export Product	20%
Components Export (GSC)	25%
Local MRO	25%
Defense Equiptments Operational Readiness	60%



Notes:
- Export Percentage is the Total Production of DEFIND for export
- Product Export refererring to final product while, components export is sales of DEFIND components to overseas as part of Global Supply Chain (GSC)

Sumber: diolah dari Bappenas, 2019 dan KKIP, 2016

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SPECIAL TARGET

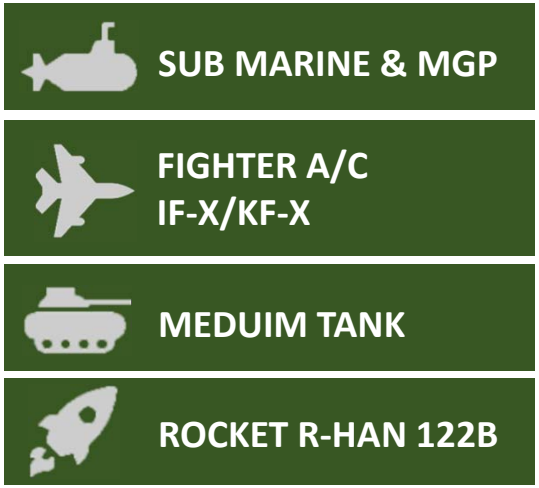
YEAR 2019 - 2024

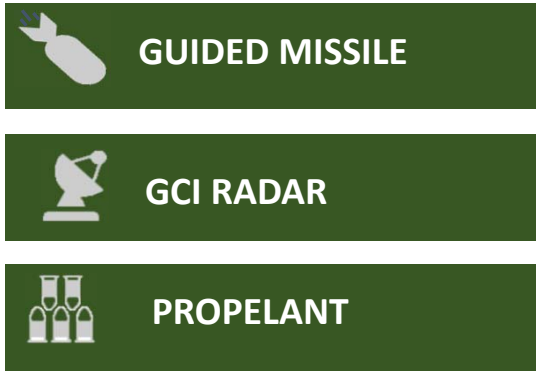
DEFENSE INDUSTRIES NATIONAL PRIORITIES

In 2012 DEFIND priority program is determined base on user's need and further criteria as below;

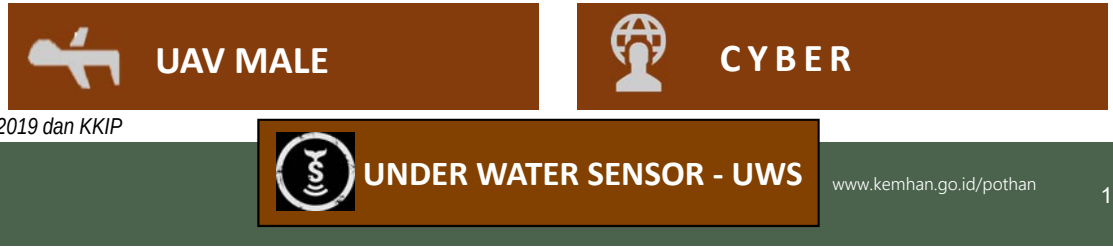
- Strategic Value
- High Technology
- Long Term
- Economic Feas Aspect
- Technology Transfer
- Cross Governmental
- Cross Ministries & Insts

- **PP No 136 year 2014 on Program Pengembangan Pesawat Tempur IF-X**
- **Policy of Ketua Harian KKIP No KEP/07/KKIP/IX/2014 on Program Nasional Industri Pertahanan**



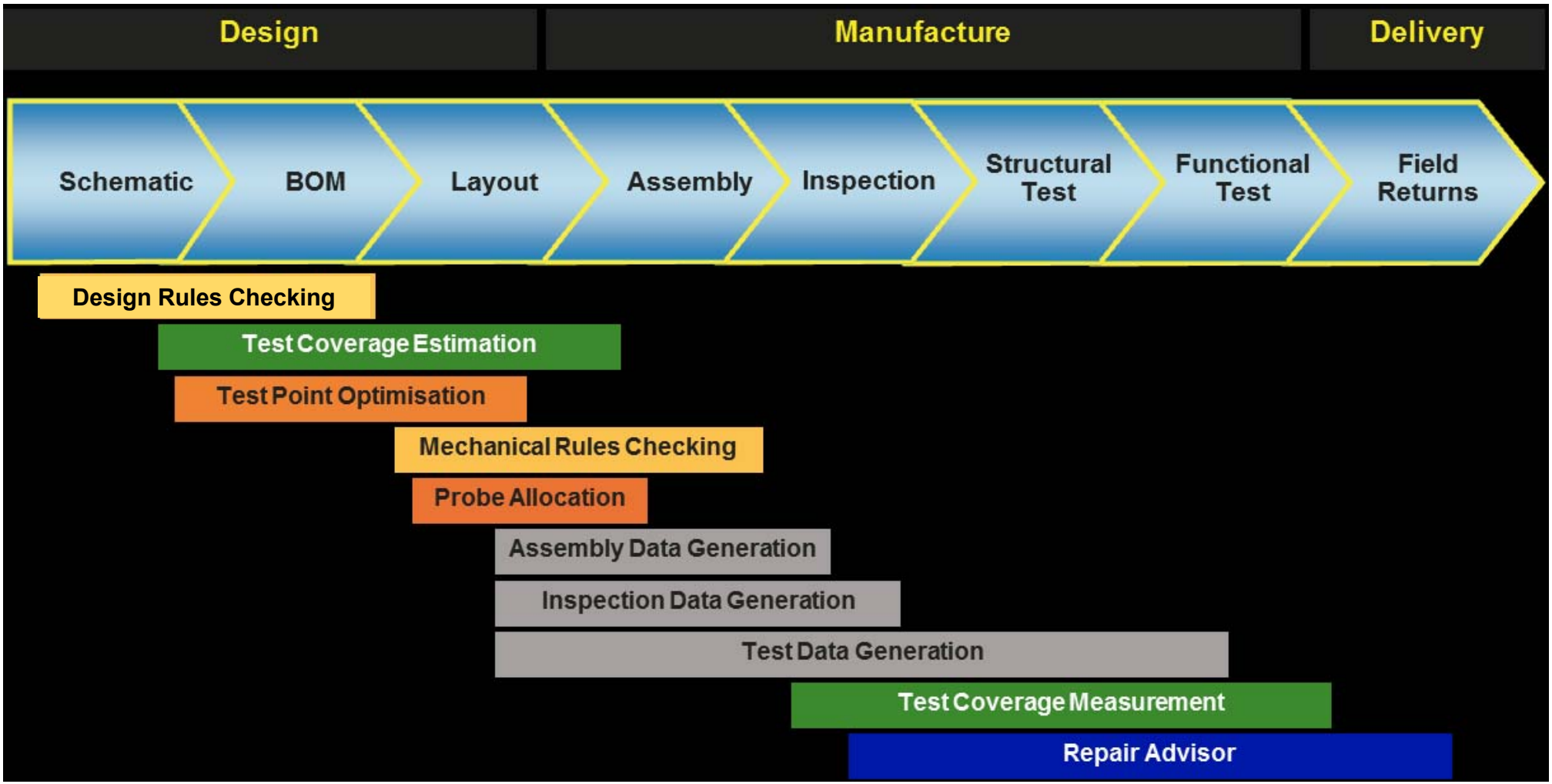


Based on *Rencana Induk Riset Nasional Bidang Pertahanan 2017 – 2045*, with additional of 2 + 1 products Flagship, that are:

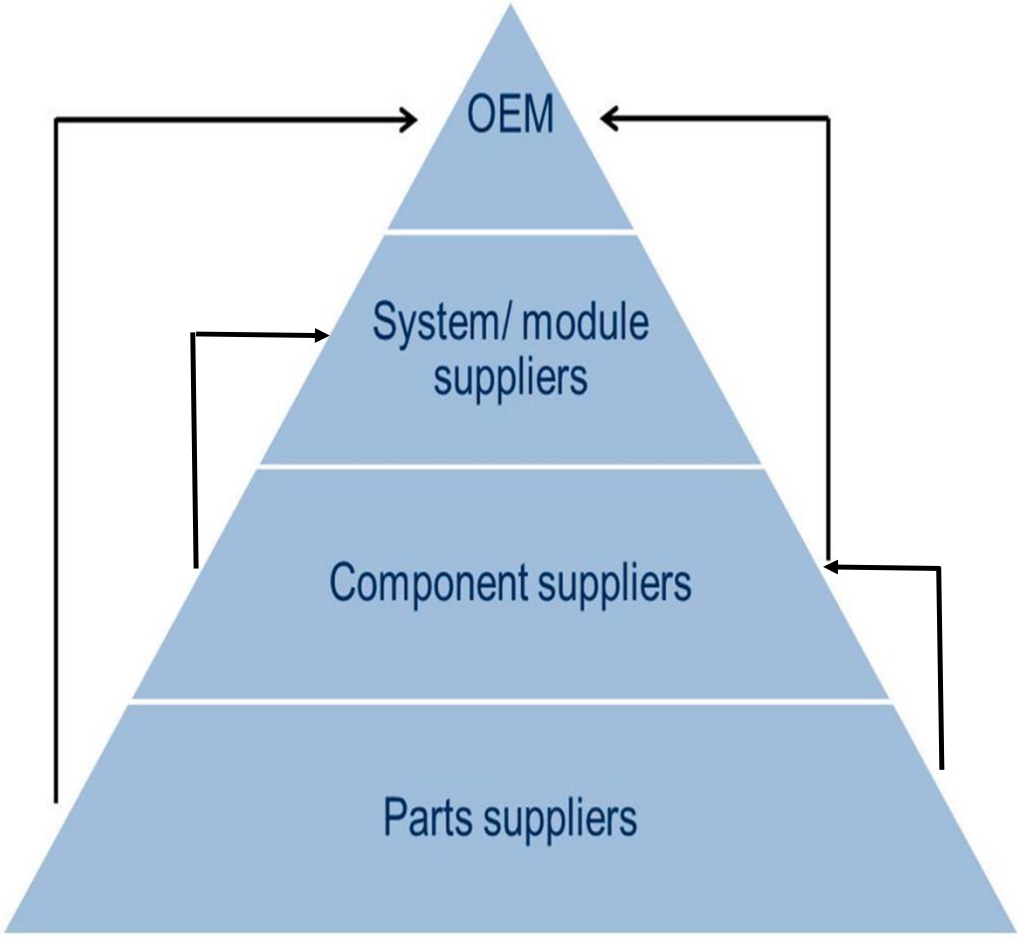


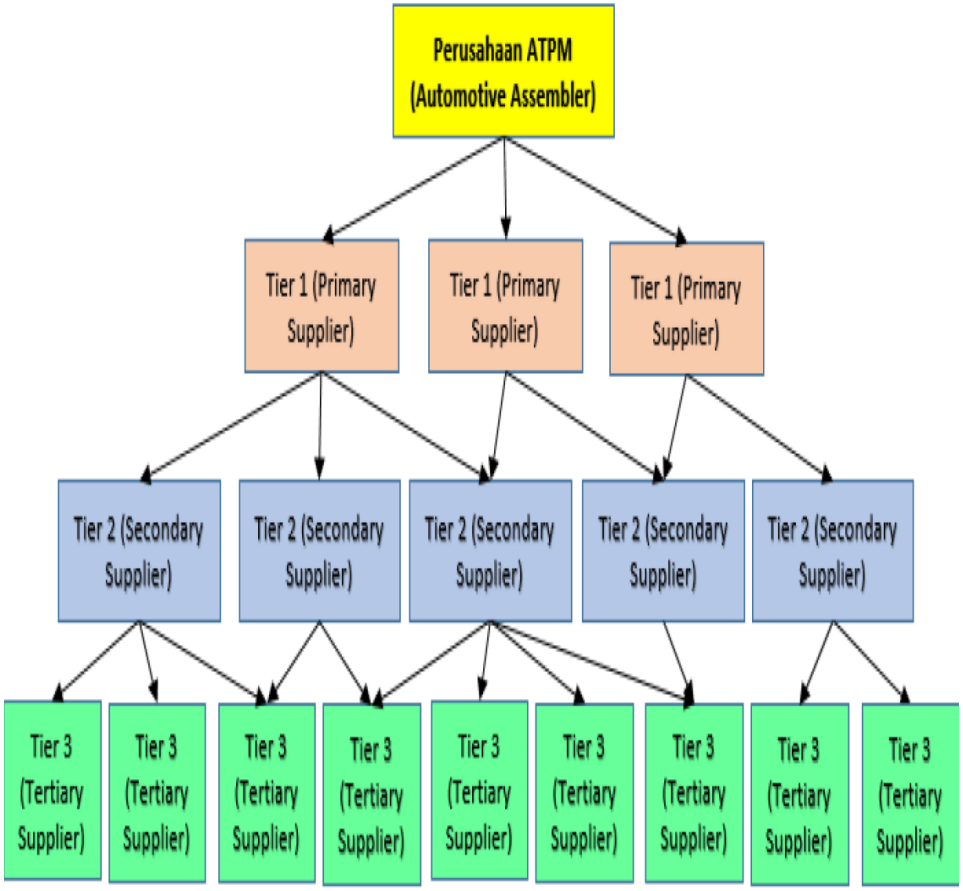
Sumber: diolah dari Bappenas, 2019 dan KKIP

Art to Part


Design
Manufacture
Delivery
Schematic
BOM
Layout
Assembly
Inspection
Structural Test
Functional Test
Field Returns
Design Rules Checking
Test Coverage Estimation
Test Point Optimisation
Mechanical Rules Checking
Probe Allocation
Assembly Data Generation
Inspection Data Generation
Test Data Generation
Test Coverage Measurement
Repair Advisor

Industrial Tiers





Gaikindo

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What makes a small car?

https://carfromjapan.com/article/car-maintenance/parts-of-a-car/

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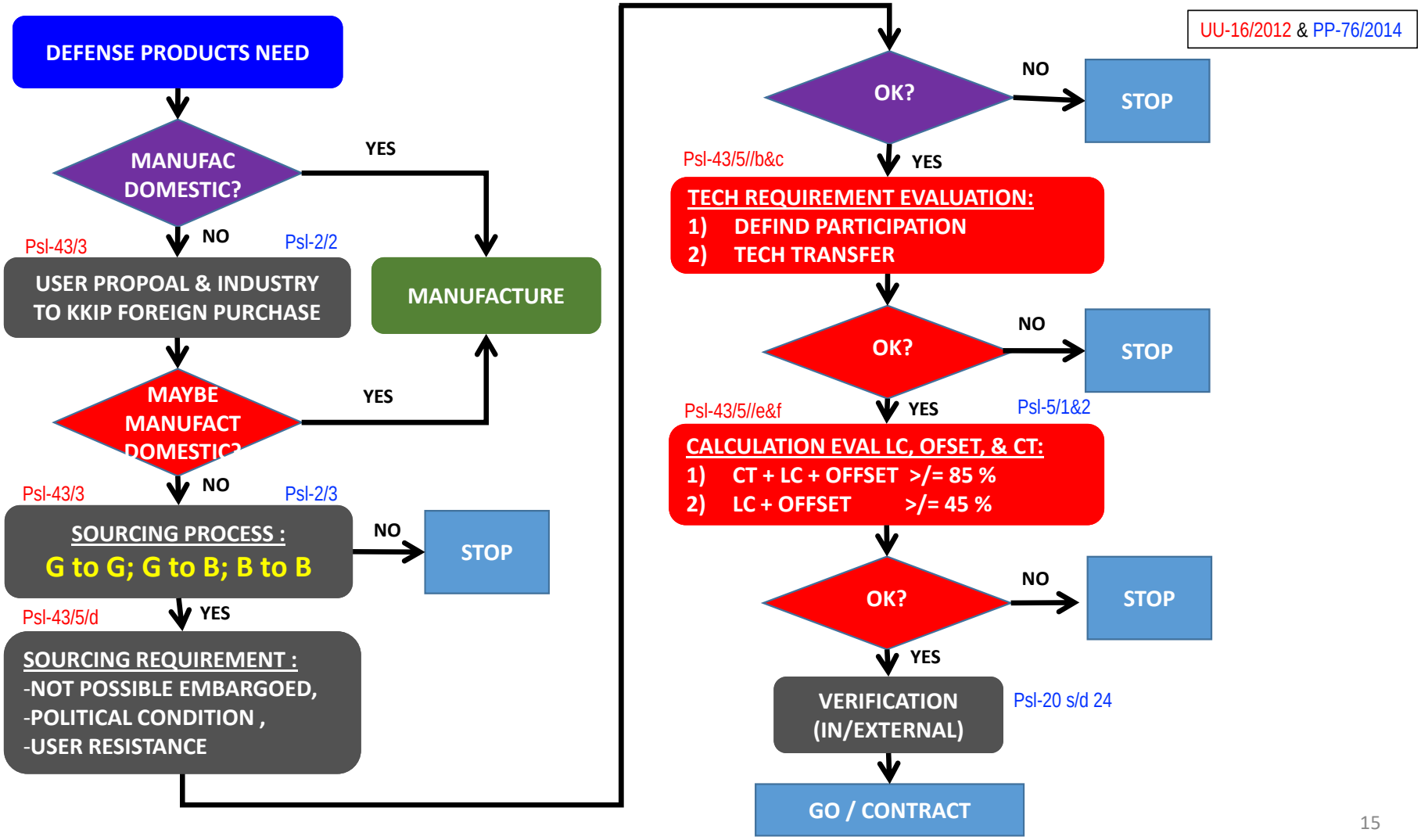
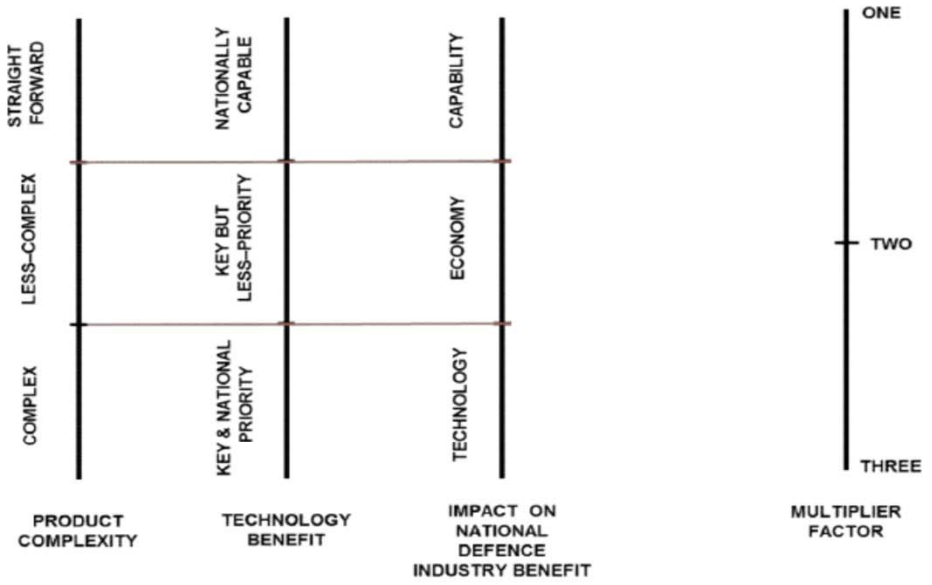
MECHANISM OF DEFENSE PRODUCT SOURCING FROM ABROAD



MULTIPLIER FACTOR CONCEPT

Each item in the KLO is given a multiplier whose magnitude depends on the characteristics of the item in terms of (supporting):

- ✓ Towards the independence and competitiveness of the Defense Industry
- ✓ Defense Industry capabilities
- ✓ Need of Defense Products
- ✓ Technology Capability, Product Design and Manufacturing
- ✓ Human Resources Capability
- ✓ Availability of Facilities and Infrastructure
- ✓ Market Development
- ✓ National Economic Impact



Scoring Guidance on CTLCO calculation by KKIP

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- ***NOTES:***
  1. It is hoped that the form of technology transfer program to National Inhan will be carried out more in Indonesia and for the world of education carried out in supplying countries. example: sending experienced technology instructors or consultants to teach in the domestic industry or educational institutions at least as long as the project is carried out in Indonesia.
  2. It is hoped that the Offset recipient in the form of Technology Transfer can get a certificate of recognition of the quality of the achievement of expertise and or a certificate of recognition of the quality of the product produced. → for example a certificate that can penetrate the trade barrier or technology barrier against national products abroad.
  3. Offsets outside the direct context of the purchased Alpalhankam technology can be given a maximum value if they can add value to other domestic products so that they have the opportunity to enter the international market. → for example: certification for aircraft N219.

- Factor 0 – 1 = What is offered is not directly related to the technology purchased or needed and does not have a direct or indirect impact on the industry or education sector in Indonesia.
- Factor 1 – 1.3 = What is offered includes technology, skills and technical capabilities that are not relevant to the desired product but are still needed for the development of the defense industry.
- Factor 1.4 - 1.5 = What is offered includes the technology, skills and technical capabilities needed by the defense industry but are not included in the list of national programs and do not support export opportunities.
- Factor 1.6 – 2 = What is offered includes the core technology needed to drive product design capabilities, both directly and indirectly, to the technology purchased.
- Factor 2.1 – 2.4 = What is offered includes the core technology needed to encourage design and production capabilities in the country, either directly or indirectly, for the technology purchased and at the end of the program, program participants are given a certificate of recognition from the supplying country.
- Factor 2.5 – 2.8 = what is offered includes the core technology needed to encourage the ability to design and build domestically, either directly or indirectly on the technology purchased and at the end of the program, program participants are given a certificate of recognition from an independent international certification body.
- Factor 2.9 - 3 = If you meet all the requirements to get a scoring factor of 2.8 but provide assistance or an opportunity for National DEFIND to sell their products to foreign/global market.

TRL – MRL requirement challenges for Industry

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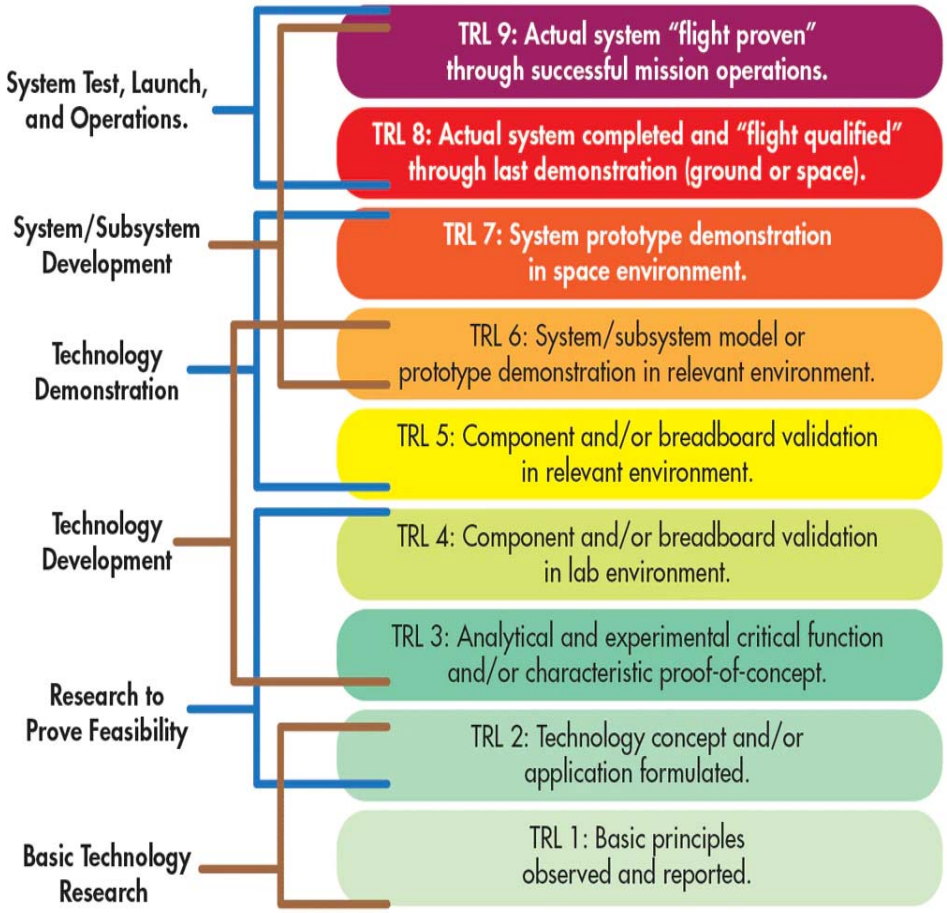
Technology Readiness Levels



Manufacturing Readiness Level

Phase	MRL	State of Development
Phase 3: Production Implementation	9	Full production process qualified for full range of parts & full metrics achieved
	8	Full production process qualified for full range of parts
	7	Capability and rate confirmed
Phase 2: Pre-production	6	Process optimized for production rate on production equipment
	5	Basic capability demonstrated
Phase 1: Technology assessment & proving	4	Production validated in lab environment
	3	Experimental proof of concept completed
	2	Application & validity of concept validated or demonstrated
	1	Concept proposed with scientific validation

https://www.sketchbubble.com/en/presentation-manufacturing-readiness.html

The Importance of Integrated Network → *Industry, R&D, Education & Authorities*

Indonesia Past Capabilities in the '70s until end of '90s

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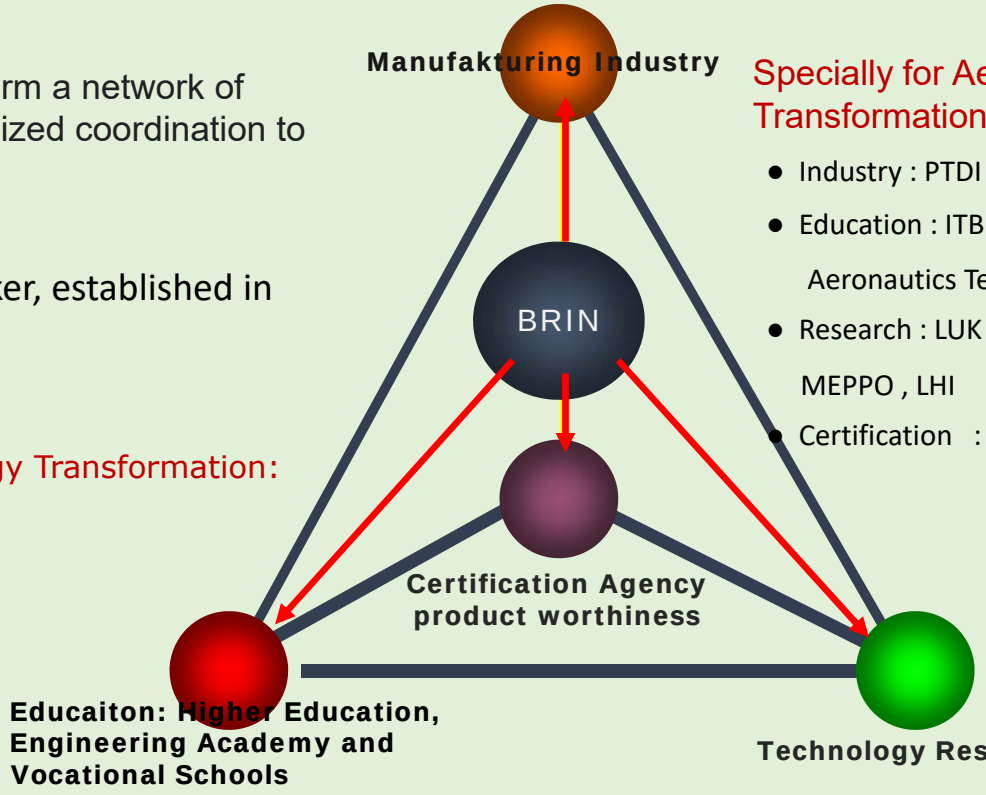
In carrying out Technological Transformation, a network is built that involves the main elements of technology actors who will interact with each other in an integrated manner

These four main elements form a network of pyramids that require centralized coordination to make policy.

BPP Teknologi as policy maker, established in 1978 → now BRIN (2022)

Four Stages of Technology Transformation:

- Technology Introduction
- Techology Integration
- Technology Development
- Industrial Research



Specially for Aeronautic Technology Transformation :

- Industry : PTDI
- Education : ITB , Polytechnic , Aeronautics Technology Highschool
- Research : LUK , LAGG , BTMP , MEPPO , LHI
- Certification : DGAC, MOT

Diolah dari catatan pribadi Marsma (Purn) Juwono Koelbioen, Alm.

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The Challenges

- More complete information is needed on national assets related to the Defense Industry upstream downstream starting from the world of education, research laboratories to industrial asset facilities.
- Foreign purchasing budget currently is still bigger than domestic.
- Any purchase is seen as project based opportunity, never to look for long term industrial relationship/partnership.
- Not all industries especially Tier-2 and Tier-3 understand that they can participate.

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Closing

- With a clear and easy-to-understand strategy using past references and an improved road map, Indonesia should be able to repeat the heyday of its technology without difficulty and high costs but need to find the one who understand how and can do.
- Modernization of Industry need a modern mindset of the stake holders behind it who must understand the business and how it must be played.
- Industrial ecosystem development for a country like Indonesia cannot be separated from the important role of the Government yet, including the importance of the Government in providing the most needed stimulants for strategic/defense industrial players.
- The obligation to comply with CTLCO requirements under UU 16/2012 should not be seen as project implementation obligation but should be treated as an opportunity to measure long-term mutual beneficial cooperation with the local industry project partners.

TERIMA KASIH

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