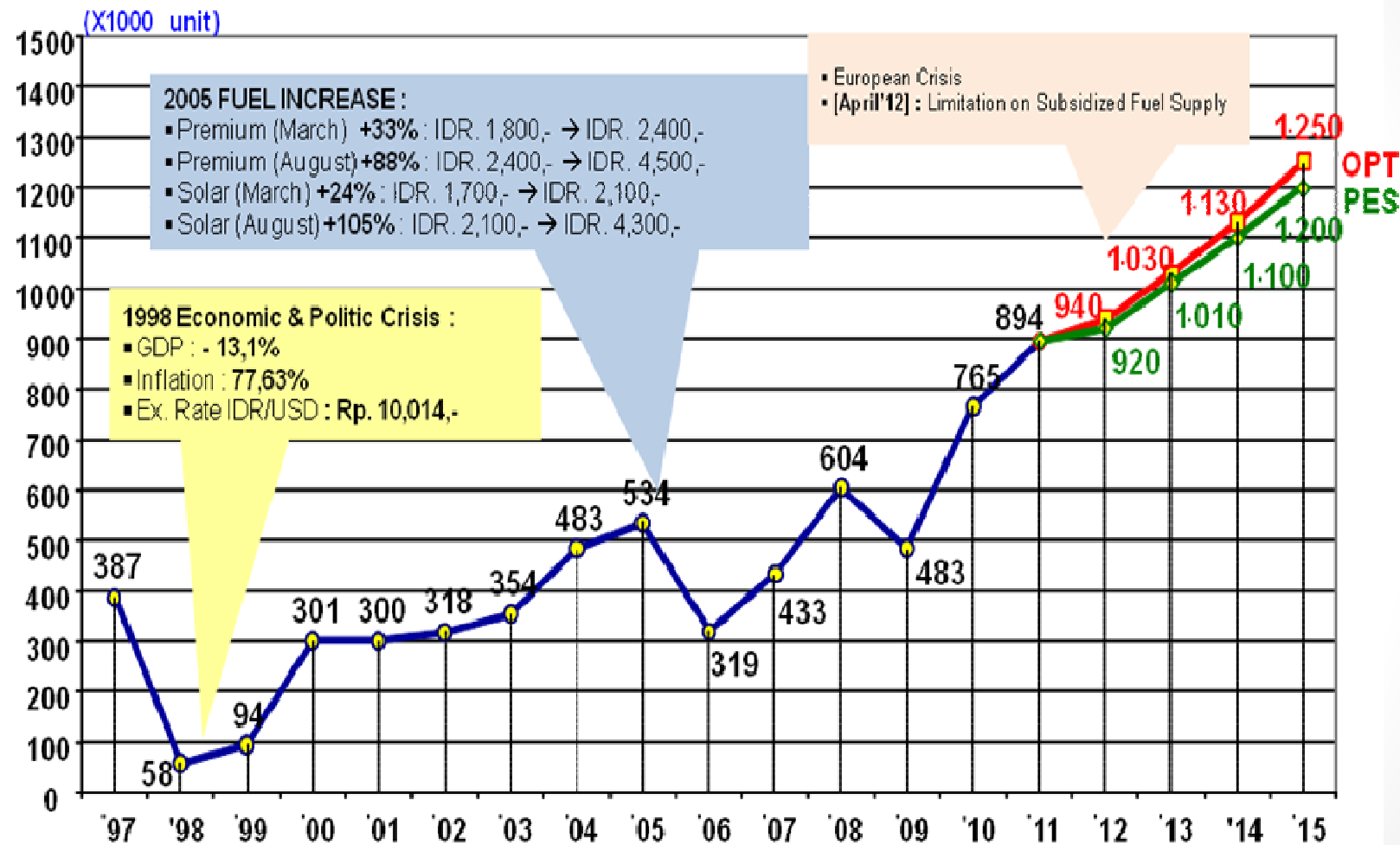


# Toward The Development of Indonesia Automotive Research Institute

# Outline

- Background
  - Indonesia Automotive market
  - Reasoning to Develop Indonesia Automotive Research and Development Institute (INARD)
- Vision and Mission
- The role of INARD
- INARD Activities

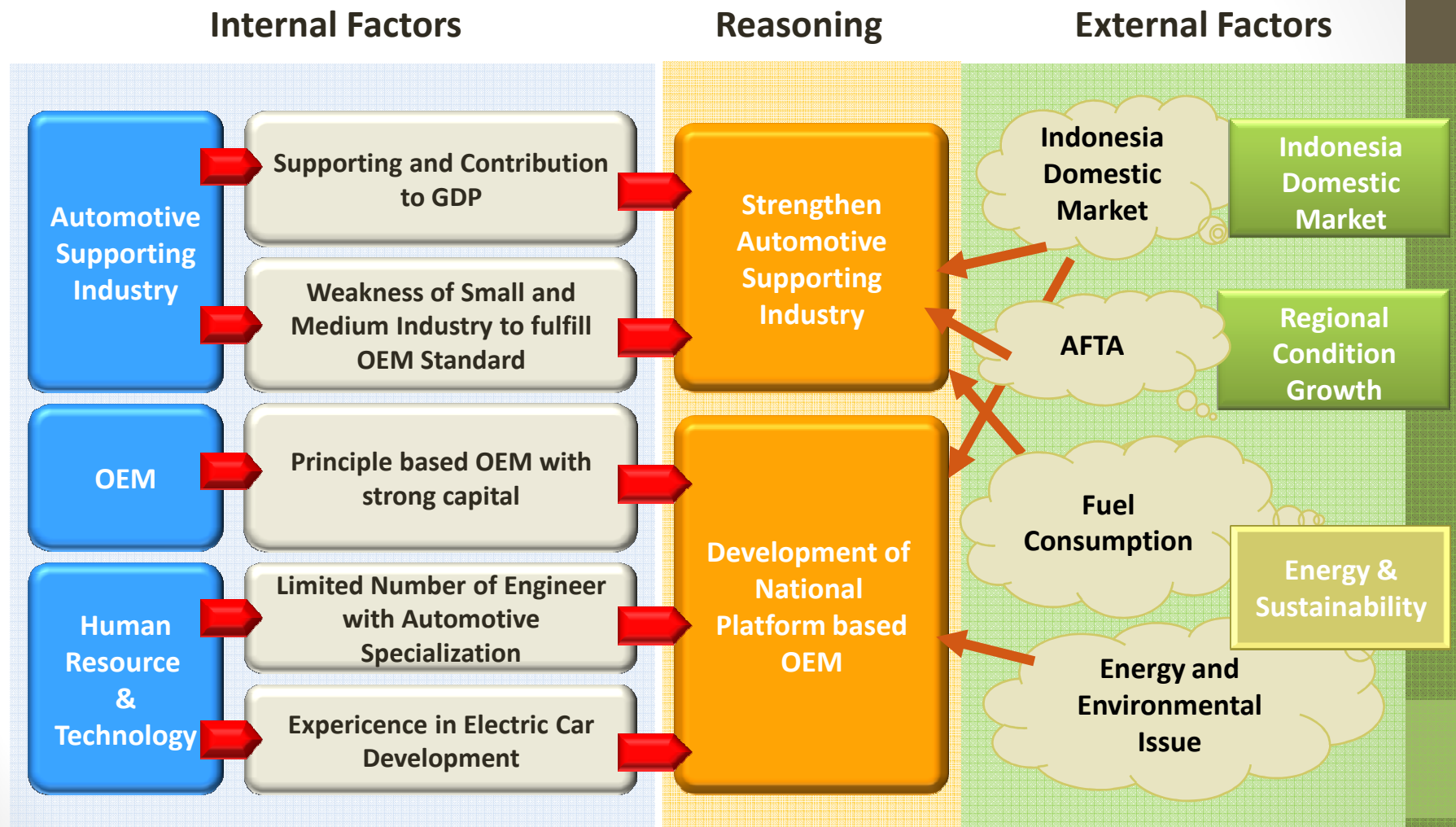
## Background : Domestic Market and Forecast for 1997-2015 (Gaikindo)



**Note:**

Domestic market growth assumptions in 2012 to 2013, 2013 to 2014, 2014 to 2015 = 10%

## Background : Reasoning to Develop INARD



# **Vision**

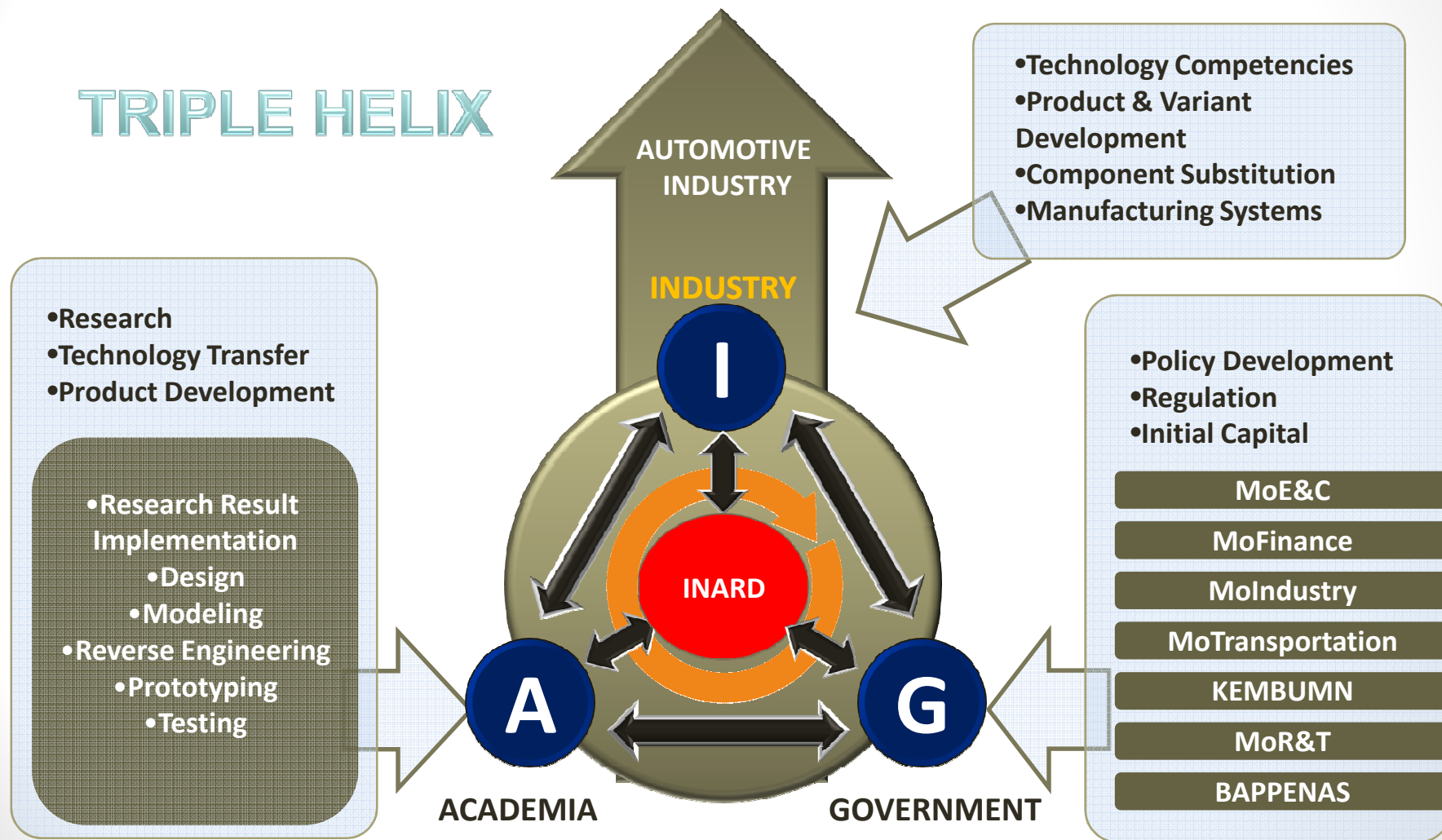
- To be an Engineering and Development Institution to support an achievement of Indonesia Automotive Industry as a World Class Industry.

# **Mission**

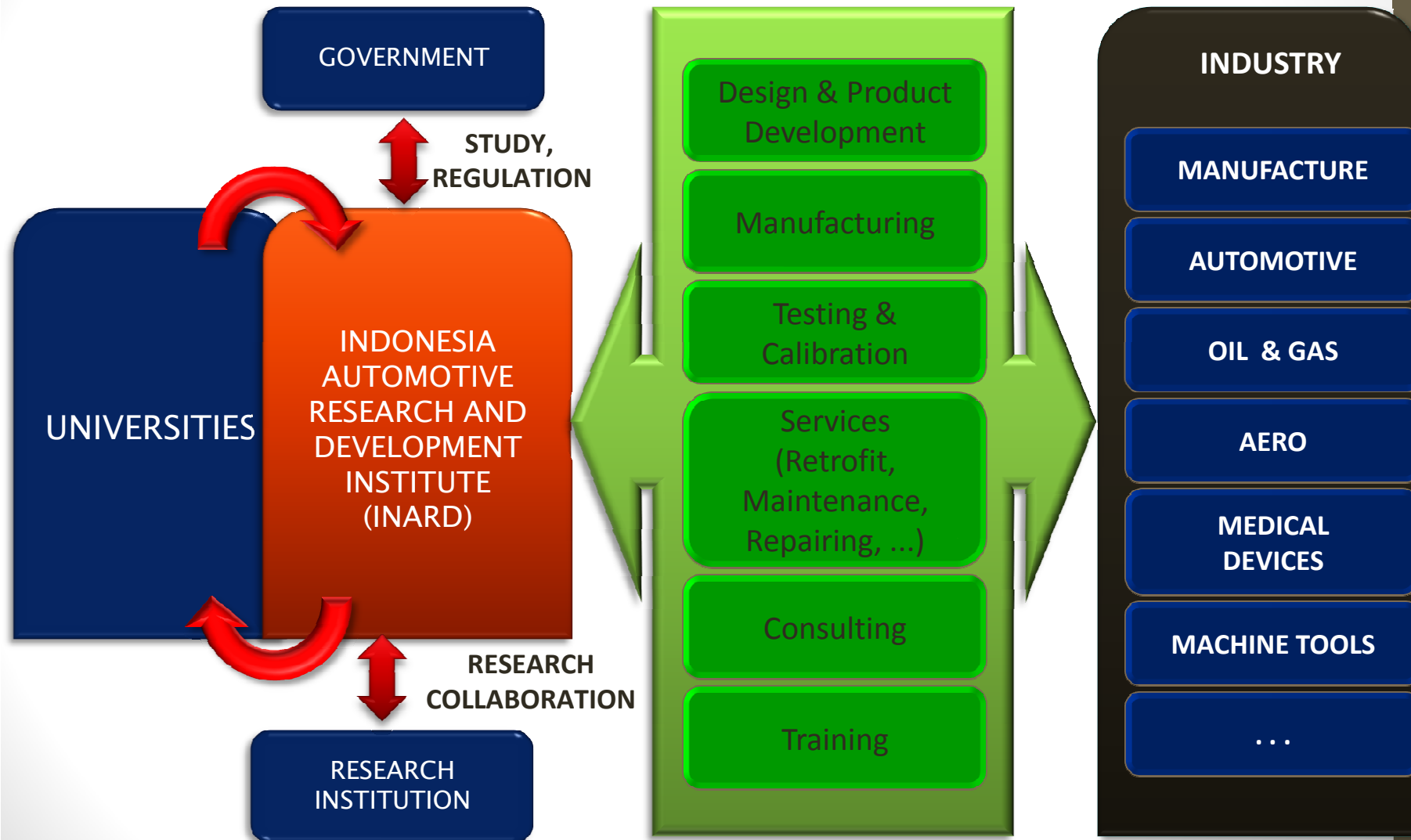
- To develop a human resource in the automotive field based on grading system
- To develop technology in design, manufacturing, and testing of automotive product and its component
- To develop a special production equipment for the automotive industry

## ROLE OF INDONESIA AUTOMOTIVE RESEARCH AND DEVELOPMENT INSTITUTE (INARD)

### TRIPLE HELIX



## INARD ACTIVITIES



# Energy Diversification Programme for Transportation Sector in Indonesia

Indonesian Automotive Research & Development Institute  
(INARD)





# Outline

- Background
  - Presidential decree for diversification energy
  - Environment Ministry decree for Emission New type vehicle approval
  - Ministry of Industry programs for Development of Low Cost Green Car, Low Cost Public Transport Vehicle and Low Carbon Emission Vehicle.
- Research and Development of green fuel and Green Car in Indonesia
  - Biofuel: Bio-diesel and bio-ethanol
  - Dual-Fuel Systems
  - Electric Car

# Background

- Presidential decree for diversification energy
  - In 2025 energy sector in Indonesia will be as below:
    - Fossil fuel 20%
    - Gas 30%
    - Biofuel 5%
- Environment Ministry decree for New type vehicle approval:
  - Exhaust Gas Emission according to Euro 2 for Light passenger and commercial Vehicle, Heavy Duty Vehicle and Motor Cycle
    - Plan to move to Euro 3 for Motor Cycle
- Ministry of Industry programs:
  - Low Cost Green Car
  - Low Cost Public Car
  - Low Carbon Emission

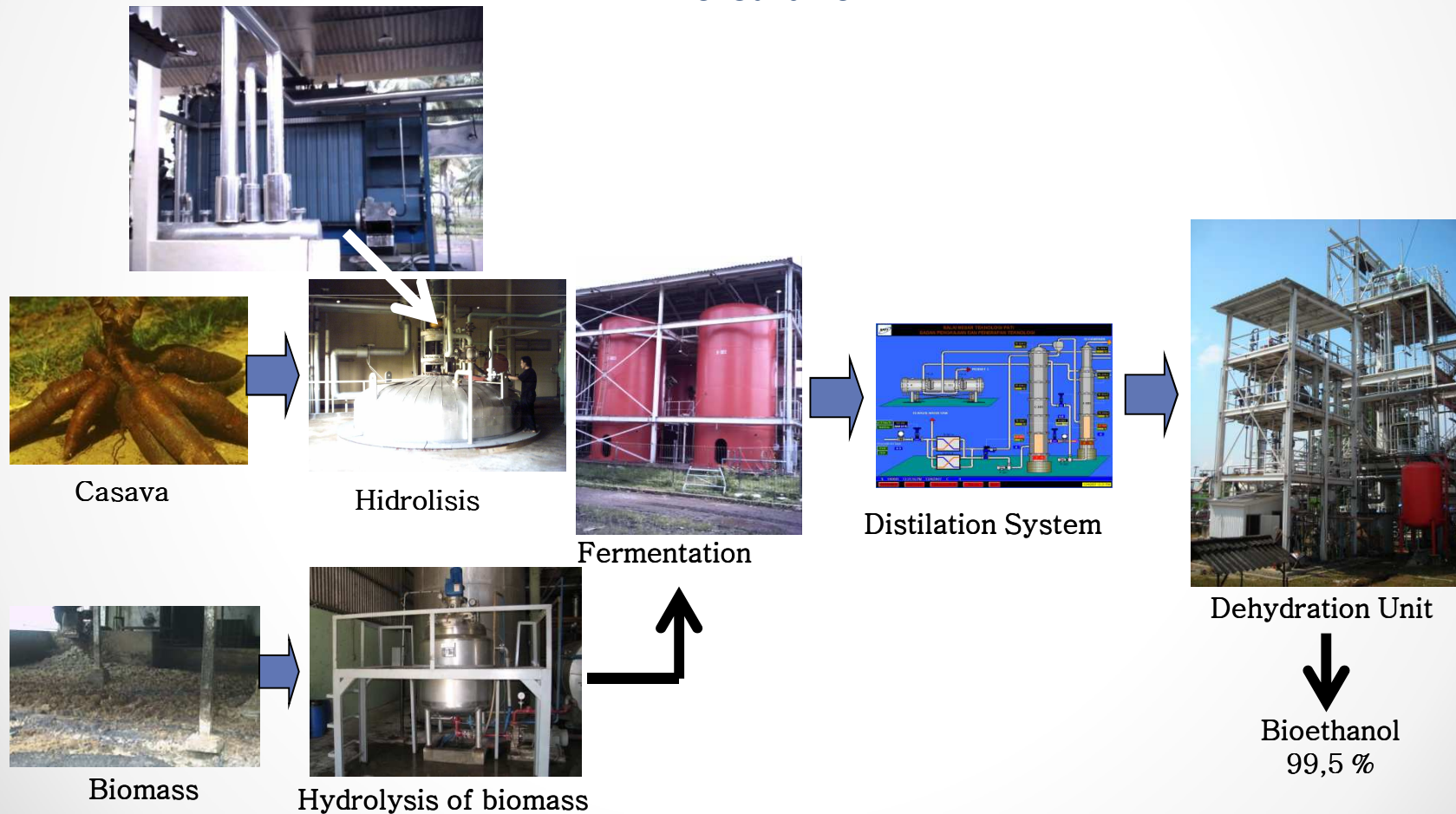
# Research and Development of green fuel and Green Car in Indonesia

Biofuel – Bio-diesel



# Research and Development of green fuel and Green Car in Indonesia

## Bio-ethanol





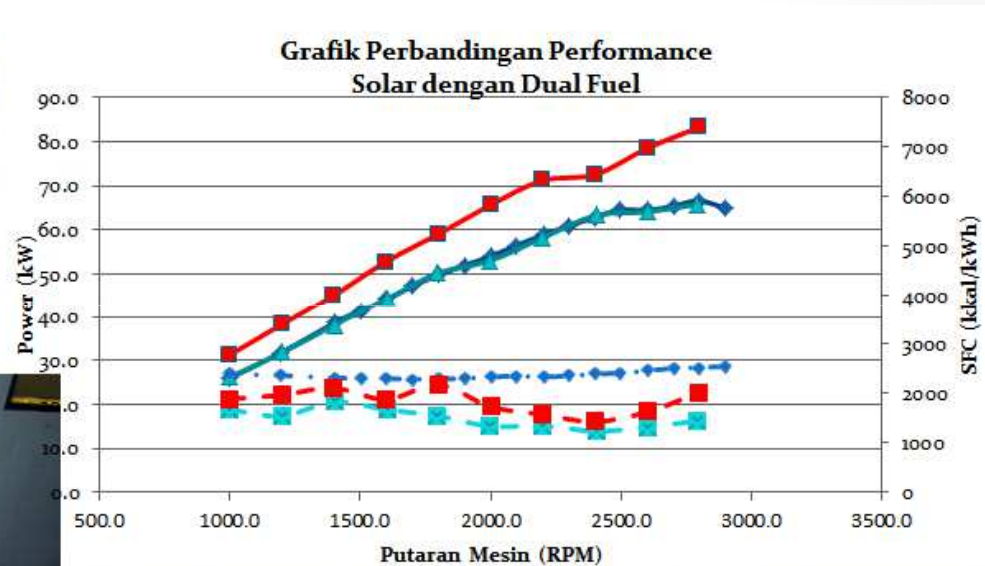
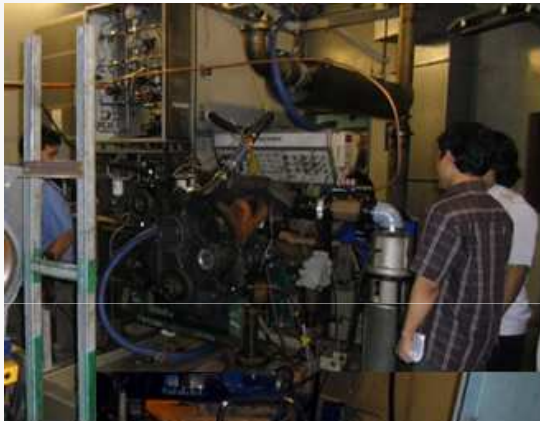
# Research and Development of green fuel and Green Car in Indonesia

## Coal Gasification and Liquification



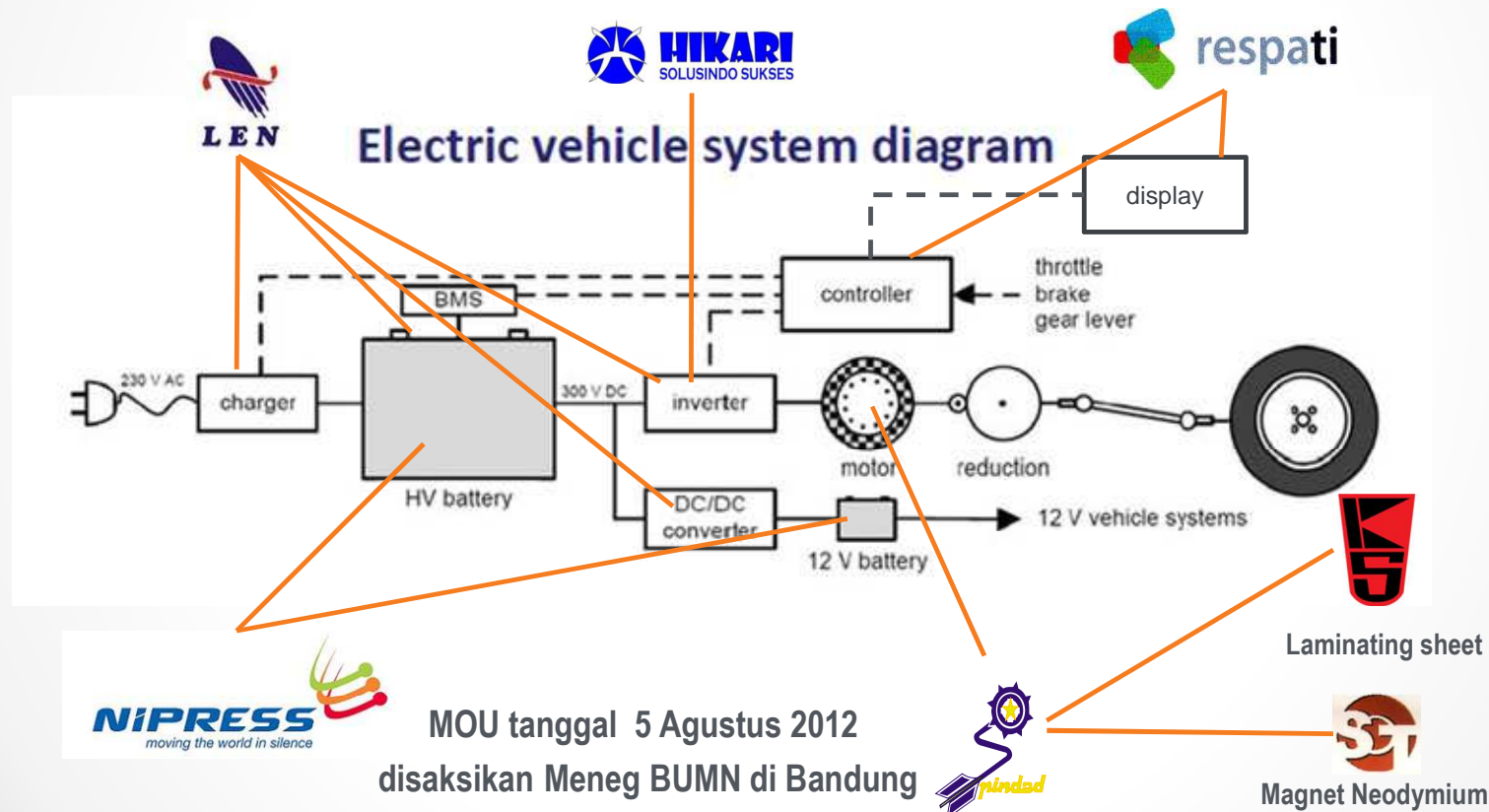
# Research and Development of green fuel and Green Car in Indonesia

Development of Dual-Fuel Systems of Bus Engine (Diesel + Gas)



# Research and Development of green fuel and Green Car in Indonesia

## Electric Car Preliminary Research



THANK YOU

THANK YOU

