



AFRICA-ai-JAPAN



iPIC Sub-Task Force Visit to Isuzu East Africa Ltd on 21st July, 2021

Summary Report

Courtesy of the **AFRICA-ai-JAPAN** Project Office

1. Introduction

In this report, deliberations of the meeting between a team of researchers from the Innovation and Prototyping Integrated Centre (iPIC) Sub-Task Force and the Isuzu East Africa Ltd management team during a visit to the company on Wednesday, 21st July, 2021 are summarized. The main purpose of the visit was to explore opportunities for technical collaboration and initiate linkage between Isuzu East Africa Ltd and Jomo Kenyatta University of Agriculture and Technology (JKUAT), through the iPIC Sub-Task Force.

The following iPIC Sub-Task Force members visited Isuzu East Africa Ltd:

1. Dr. Eng. H. Ndiritu – Chair, iPIC Sub-Task Force
2. Dr. S. Aoki
3. Mr. D. Omondi
4. Mr. S. Kariuki
5. Dr. M. Hawi
6. Dr. J. G. Odhiambo
7. Dr. B. Owiti

The team had a briefing meeting with the Isuzu East Africa Ltd team in charge of Safety and Environmental Protocols in the company. This was followed by a brief tour of the plant and finally a wrap-up meeting with the company Management, in order to identify potential collaboration areas and also establish a working industrial linkage with the company.

2. Tour of the Plant

The iPIC Sub-Task Force team was taken around the plant to see the various production units of the company including the Body shop, Paint shop, Trim line, Chassis lines (locally reinforced through welding to adapt them to the local roads), and the Final inspection line operations. On average, the company produces about 11,000 units/year which include commercial vehicles, bus chassis, pickups, trucks and SUV. The main functions of the company are to manufacture, distribute and offer after sales support (in terms of spare parts and other follow-up services) for Isuzu products. The manufactured products are summarized in Fig. 1 (*Courtesy of Isuzu East Africa Ltd presentation by Mr. James Njoroge*).

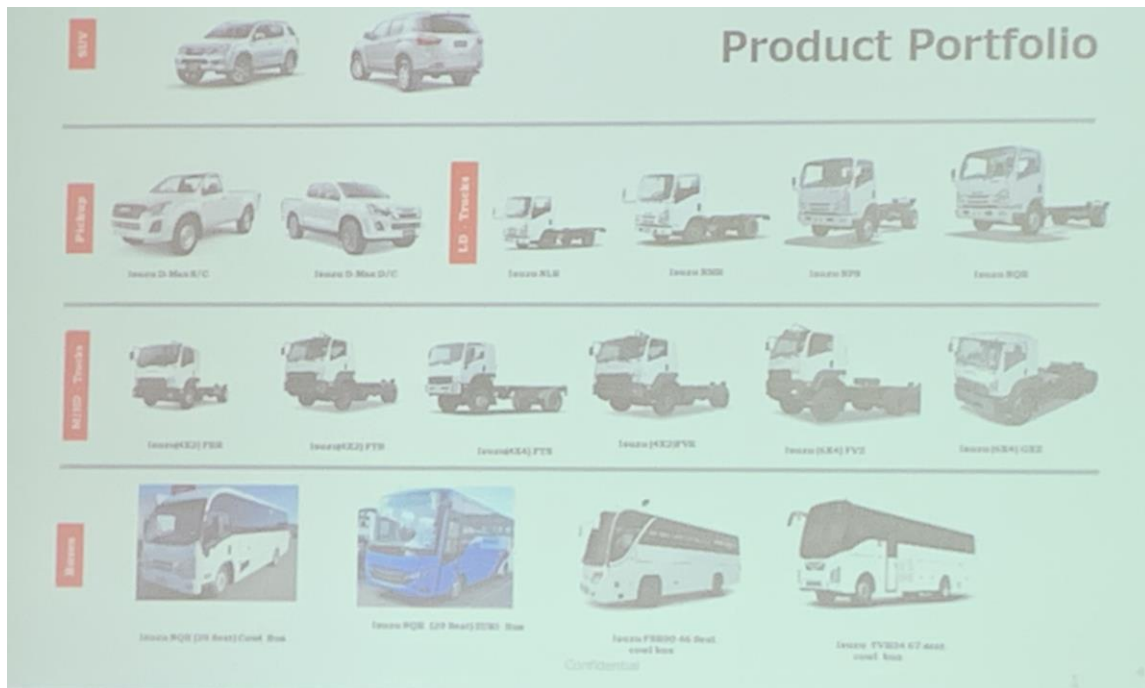


Fig. 1: Isuzu East Africa Ltd product portfolio (Mr. Njoroge’s presentation)

3. Meeting with Isuzu East Africa Ltd Management

The management team of Isuzu East Africa Ltd made a presentation about the company and its undertakings to the iPIC Sub-Task Force team. From the presentation and interactive session, Isuzu East Africa Ltd is involved in the following areas as a way of collaboration with academia:

i. Internship training program

Isuzu East Africa Ltd offers one year internship training to fresh graduates before full employment by the company or release to the larger Engineering job market. Through enhanced collaboration with the company, it is possible that increased number of JKUAT fresh graduates would benefit.

ii. Undergraduate internships/ industrial attachment:

The company offers industrial attachment opportunities to students for enhanced hands-on experience.

iii. Industrial visits:

The company offers industrial visits by both university staff and students for an opportunity to understand operations of the plant.

iv. Enhanced employee academic growth:

The company facilitates employee educational advancement; sends quite a number of its employees to JKUAT for postgraduate studies to enhance their growth and development.

4. Potential Areas of Collaboration and Linkage:

i. Short courses:

College of Engineering and Technology (COETEC), JKUAT, offers quite a number of short courses that suit the industry requirements in terms of employee training. In addition, in collaboration with Isuzu East Africa Ltd, other courses can be developed to serve the training needs of the company.

ii. Strengthening research and development (R & D):

- The company is involved in customized reinforcement of products chassis for local roads adaptation. The company and JKUAT can venture in optimization of these structures through simulations research. Materials experts in JKUAT led by Dr. James Mutua and Dr. John Gerald Odhiambo can be involved in testing and inspection of the reinforced materials.
- JKUAT supports the company's products value addition, for example through simulation processes. JKUAT can have input during products' validation and testing of prototypes.
- The company can consider making JKUAT its research and development (R&D) partner in order to strengthen research activities, especially in Automotive related areas. This will enhance efficient dissemination of changes in automotive industry, a fast-evolving sector.
- The company could have well preparation for introduction of electric cars the Kenyan automotive industry and also ensure efficient engine performance to reduce combustion emissions.
- Dr. S. Aoki would share with the company more information about the ABE MSc. and Ph.D. scholarships as well as the SDG scholarships to enhance research studies by the company employees.

iii. Empower female Engineering students:

It was suggested that female students pursuing Engineering courses relevant to Isuzu East Africa Ltd be engaged in a forum by the company staff. This should be arranged early in the new semester beginning in September, 2021.

iv. Curriculum review:

It was agreed that Isuzu East Africa Ltd could contribute to JKUAT Engineering curriculum review as a stakeholder (industry) and advisory partner as required by the certification body.

v. Support for needy schools:

The company suggested collaboration with JKUAT in offering support to the needy schools to enhance the rolled-out Competence Based Curriculum (CBC) programs. That both Isuzu East Africa Ltd and JKUAT could share the cost for enhancing social corporate responsibility (CSR) in selected needy schools.

vi. Adjunct programs:

That the company can contribute to the university by offering adjunct lecturers. Again, a part from technical skills that the students are exposed to, the students should be subjected to some elements of soft skills through adjunct programs offered by the industry (Isuzu East Africa Ltd in this case).

vii. Isuzu East Africa Ltd strategic plan:

The company was finalizing its 2021-2025 strategic plan and requested JKUAT to train the right automotive Engineering skills. In addition, the company sought recommendations from JKUAT on the required skills in the relevant areas, and be able to hire the right human resource. The following recommendations, among others, were offered during the interactive session:

- a. The company should apply Artificial Intelligence (AI) in its operations
- b. The company should incorporate decarbonization in their products development processes in order to reduce the levels of carbon emissions from the products.
- c. The company should supplement the existing power sources for the intended electric vehicles' charging points. The company should also consider integrating renewable power sources to augment the conventional sources for energy sustainability and reliability.
- d. That JKUAT could walk with Isuzu East Africa Ltd into the future by teaching the company staff to be ahead of competing companies.

5. Request to Isuzu East Africa Ltd

i. Participate in Innovation Seminars:

As a way of furthering collaboration engagement and enhancing industrial linkage, the company was requested to participate in iPIC Innovation webinars in September, 2021 on a date that would be confirmed.

ii. Model donations:

JKUAT requested the company, if possible, to donate some models to JKUAT Engineering workshops for purposes of training students taking Mechanical Engineering course (Automotive option).

6. Conclusion

The visit to Isuzu East Africa Ltd by the iPIC Sub-Task Force team drew a roadmap for creation of a lasting technical collaboration and a working industrial linkage between iPIC Sub-Task Force, JKUAT and the company. This would improve the quality of the company's products through intensified research collaboration. Collaboration between the company and JKUAT would also enhance increased number of JKUAT graduates/students securing slots for industrial attachment, internships and even employment opportunities. For further engagement, it was agreed that the company would do a presentation during one of the upcoming Innovation webinars to be hosted by iPIC Sub-Task Force to advance the conversation.