Launch of Technology Development and Transfer Network Program

Panelist

Prof Charles G. Kwesiga
Executive Director, UIRI.
March, 2022
The 4 Industrial Revolutions

Stages of industrial development and sequential industrial revolutions

1784  1870  1969  NOW (?)

1st   2nd   3rd   4th
Mechanization, water power, steam power
Mass production, assembly line, electricity
Computer and automation
Cyber Physical Systems
Global ranking of HDI
(another reality check – how is our region doing?)

<table>
<thead>
<tr>
<th>Country</th>
<th>Rank</th>
<th>HDI</th>
<th>GNI @ Capita (PPP $) SDG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uganda</td>
<td>159</td>
<td>0.544</td>
<td>2,123</td>
</tr>
<tr>
<td>Rwanda</td>
<td>160</td>
<td>0.543</td>
<td>2,155</td>
</tr>
<tr>
<td>Tanzania</td>
<td>163</td>
<td>0.529</td>
<td>2,600</td>
</tr>
<tr>
<td>South Sudan</td>
<td>185</td>
<td>0.433</td>
<td>2,003</td>
</tr>
<tr>
<td>Kenya</td>
<td>143</td>
<td>0.601</td>
<td>4,244</td>
</tr>
<tr>
<td>Congo (DRC)</td>
<td>175</td>
<td>0.480</td>
<td>1,063</td>
</tr>
</tbody>
</table>
Pillars of industrialization

Market

Enterprise

Appropriate Technology

Human Capital

Affordable financing

Entrepreneurship
To mitigate the above, UIRI’s mandate is as follows:

To undertake applied research and to develop and/or acquire appropriate technology in order to create a strong, effective and competitive industrial sector in Uganda.

MISSION: To catalyse the socio-economic transformation of Uganda and the region through enhanced technology use.

VISION: To be a model institution in applied research and technology sourcing as vehicles for incubation of industry and also to pioneer self financing Research and Development (R&D).

The latter can be achieved by developing capacity to engage in contract research (e.g. DTI (Danish Technological Institute), SIRIM (Standards and Industrial Research Institute of Malaysia)).
Core activities at UIRI

• Establish platforms for value addition and product development
• Technology development; Technology Transfer and Diffusion; and designing optimal industrial processes.
• Assist entrepreneurs in managing enterprises
• Analytical laboratories (microbiology, biotechnology; and industrial chemistry) engage in product analysis and product development
• Business Incubation
• Guiding industrialization process regionally (EAC)
UIRI’s ED receives a plaque of Centre of Excellence from H.E. Uhuru Kenyatta

Speke Resort Munyonyo December 2013
UIRI’s operational paradigm
(based on Isaiah Berlin essay, “The hedgehog and the fox”)

The hedgehog views the world through the lens of a single defining idea (Plato, Dante Alighieri, etc.) UIRI strives to support big business or at least aspires to grow start-ups so that they can scale-up their operations.

The fox draws on a wide variety of experiences and for whom the world cannot be boiled down to a single idea. (e.g. Herodotus, Aristotle, William Shakespeare)
UIRI support the dual objectives of raising household income and eradicating poverty through value addition.
Innovation defined

We cannot solve our problems with the same thinking we used when we created them.

*By Albert Einstein*

“Innovation is seeing what everybody has seen and thinking what nobody has thought.”  
*Dr. Albert, Szent-Gyorgyi*

“Innovation is the unrelenting drive to break the status quo and develop anew where few have dared to go.”  
*Steven Jeffes, Marketing & Business Expert*

“Innovation means replacing the best practices of today with those of tomorrow.”  
*Paul Sloane*

Individually, we are one drop. Together, we are an ocean.  
*Ryunosuke Satoro.*
Objectives of the project include:
• Development of a model machining and manufacturing facility that employs state-of-the-art technologies;
• Focus is on manufacturing precision machined parts and progress to implements, and **eventually make machines**;
• Training facilities will engage in modern pedagogy using industrial-grade machines;
• Manufactured products are expected to generate revenues that will, in turn, support and sustain the project;
• **Manufacturing workshops will provide a platform for apprenticeships for technicians and engineers.**
Commissioning of the MMISDC on Jan 15th, 2020
by H.E. Y.K. Museveni
THANK YOU!

Contact:

Executive Director (UIRI)
Plot 42 Mukabya Road
Nakawa Industrial Area
P.O.Box 7086 Kampala
Website: www.uiri.org
Email: kwesiga@msn.com or dkamugasha@gmail.com
Telephone: +256 700601819/ +256 757766001