

ARTC

AGRICULTURE RESEARCH AND TRAINING CENTER

EXECUTIVE SUMMARY

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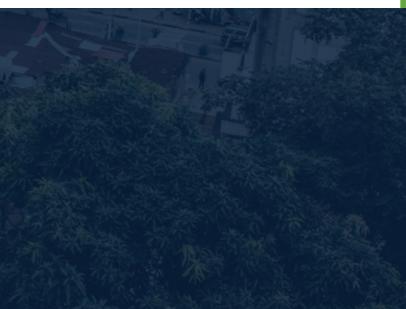
empower africa

GROWING SMART



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INTRODUCTION

The Agriculture Research & Training Center (ARTC) will centralize all relevant know-how and serve as the source of agricultural knowledge in Sierra Leone.

We believe that Sierra Leone can become a world leader of agricultural research and innovation. We see the ARTC as the first step towards transforming this vision into reality.

OUR MISSION



KNOWLEDGE

To constitute a channel for knowledge transfer and implementation between farmers, SL government officials, commercial companies, and local universities and research institutions.

THREE COMPLIMENTARY **FUNCTIONS**

> THE ACADEMY TRAINING

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RESEARCH

To research future agricultural solutions and conduct experiments in the lab and in the field.

To introduce local farmers to new crop varieties, fertilizers, irrigation solutions, and other relevant inputs are adapted to the climate and soil conditions.

AG-TECH

To provide Sierra Leonean farmers access to Precision Agriculture solutions and modern technologies through the ARTC incubator.

THE WORKSPACE INNOVATION

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ARTC

AG-TECH VISITOR CENTER & INCUBATOR Showcasing the most

advanced Ag-Tech technologies and providing practical tools to incorporate these solutions - irrespective of the farmer's income level.

UP-TO-DATE PRACTICAL KNOWLEDGE COURSES

Tailored to Sierra Leone's agricultural needs. The course curriculums will be constantly updated based on the research conducted at the Field Lab.

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APPLIED R&D

Testing and advising the government and the public on the best practices, seed varieties, and fertilizers for the environmental conditions of Sierra Leone.



Cocoa Nursery

Cashew Nursery

Cocoa Farm

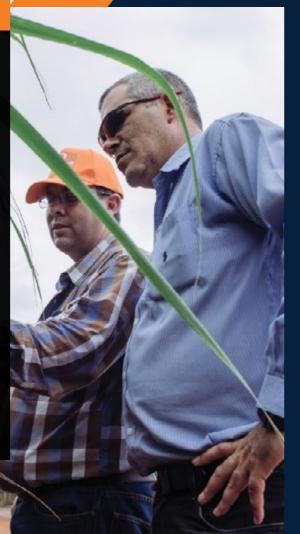
03 THE **ACADEMY**

COURSES OFFERED:

(Employed according to the PAC)

- Rice Farming*
- + Irrigation And Fertigation
- Greenhouse Training
- + Exporters' Guide: Understanding **Gap & Haccp Regulations**
- The 3 C's: Coffee, Cocoa, & Cassava*
- Tropical Fruits*
- + Agribusiness & Entrepreneurship





ACADEMY PROGRAMS

Practical agriculture courses catering to all Sierra Leoneans and specifically designed with the country's soil and climate in mind The Training Academy will offer a variety of practical courses based on the PAC concept (Practical Agriculture Courses) by Growing-Smart. The courses are designed to cater to all Sierra Leoneans involved in agriculture regardless of their educational levels - from small-holder farmers to university graduates and agricultural experts.

Courses ranging from four days to four weeks

The Academy will offer courses ranging in duration from four days to four weeks, tailored to the local market and environmental conditions and focused on practical knowledge which can immediately be put into practice.

Direct Training and Experience

The training will be divided between classroom studies, outdoor applied studies, and work in the field during which the students will practice what they learned during the day.



- + Sustainable and Economical Solutions and Practices A major emphasis will be placed on agriculture solutions that are both sustainable and economical.
- + Adapted to Market Demands Based on the PAC concept, the courses will be adapted to Sierra Leone's agricultural reality and will address post-harvest, best practices, industrial farming, food processing, and food safety.
- + Latest practical knowledge

The curriculum will be constantly updated based on the research conducted at the Field Lab to include the latest practical knowledge tailored to Sierra Leone's conditions.

04 THE **FIELD LAB**

The Field Lab will conduct field experiments on practices, agro-techniques, new varieties, fertilizers, irrigation, and other inputs in order to assess their suitability.

- Providing services and advising both the government and commercial companies.
- + All research will be lead by international experts and conducted in cooperation with Sierra Leone Agriculture Institute and Njala University.

APPLIED AGRICULTURAL R&D

The Research Heart of the ARTC

The Field Lab will be the research heart of the ARTC, and will research and advise the government and the public on best practices, seed varieties, fertilizers, irrigation, and other agri-inputs suitable for the environmental conditions of Sierra Leone.

The experiments will allow the Field Lab to establish best-use protocols for the climate and soil of Sierra Leone.



O5 THE WORKSPACE

VISITOR CENTER

The Workspace will be athe ARTC's Visitor Center and will include an Accelerator which will provide local agriculture start-ups with a space to develop their product.

The Visitor Center will feature the most advanced Agricultural Technologies, carefully selected for their relevance to the needs and environmental conditions of Sierra Leone.



The Workspace will showcase advanced technologies and applications like IoT (Internet of Things) and Precision Agriculture that can be applied by local communities and smallholder farmers to significantly improve their yields.

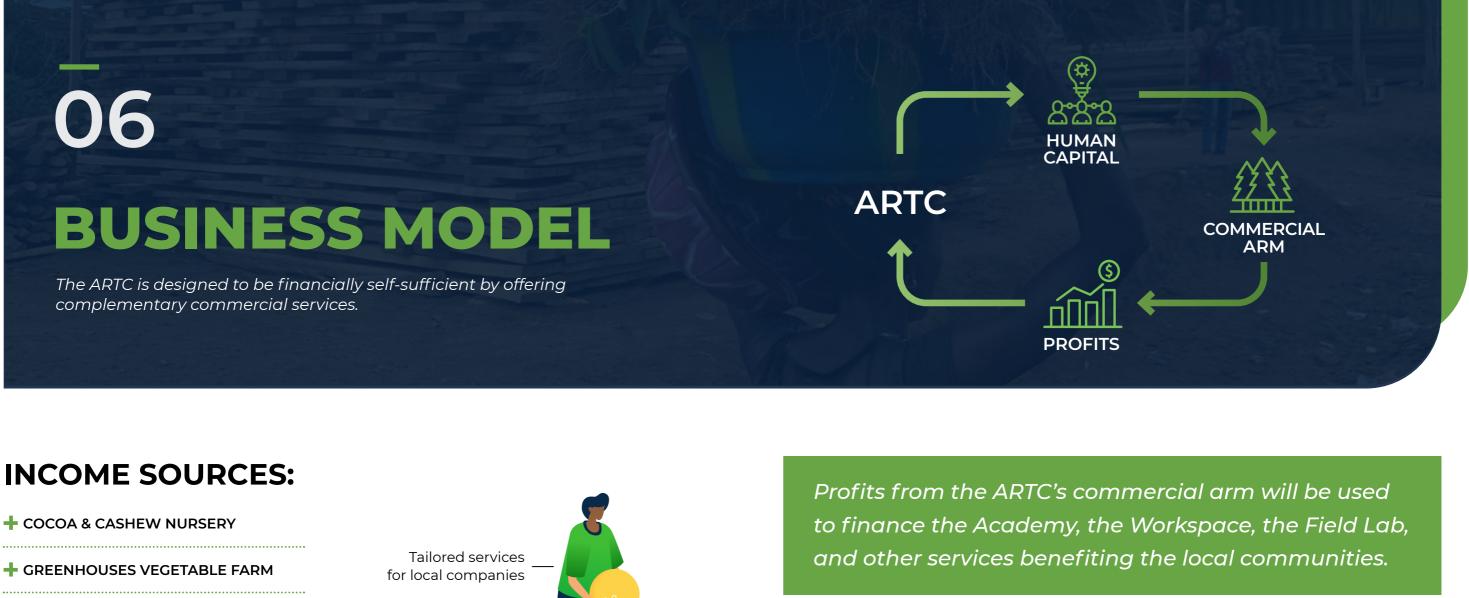
Every technology and/or practice showcased in the Workspace will be first examined and adjusted to fit the Sierra Leonean user and the specific needs of the country.



THEORY OF CHANGE

Our TOC is that the exposure of both young children and older farmers will present agriculture in a new and exciting light. This in turn will attract the youth and entrepreneurs to engage with the sector - contributing to its development and to the overall food security of the country.

Why? The purpose of the innovative Visitor Center is to inspire various audiences - school children, students, government officials, and the general public while providing farmers access to practical tools and innovative solutions irrespective of their income and/or education level.



- + MODERN COMMERCIAL COCOA, **ORANGE & CASSAVA FARMS**
- + HIGH QUALITY AGRICULTURAL INPUTS SEEDS, FERTILIZERS, IRRIGATION, SMALLHOLDER FARMER KITS, EQUIPMENT, ETC.
- + TAILORED COURSES AND DAY TRAININGS FOR COMMERCIAL COMPANIES
- + APPLIED R&D FOR COMMERCIAL COMPANIES



07 **OUR IMPACT**

LOOK WHAT WE CAN ACHIEV

PRACTICAL **EDUCATION**

Imparting knowledge that can be immediately implemented

support to gradua

ACCESS TO MARKETS

> Facilitating access to markets both fo communities. The ARTC will act as a complement the center's commercia



ACCESS TO FINANCE

Linking students with microfinance institutions

United Nations Sustainable Developr Goals (SDGs) that the ARTC will supp





| AN ACHIEVE TOGETHER | | |
|--|---|--|
| COO LASTING KNOWLEDGE Providing long term support to course graduates | CREATING JOBS 400 new full time jobs in the ARTCin the 1st year, 600 in the 2nd. Focus on recruiting women and encouraging female employment on the commercial farm | |
| MARKETS s to markets both for our students and for the surrounding farming e ARTC will act as a buyer of agricultural surpluses, which will center's commercial production. | | |
| with Su | ROMOTING INNOVATION pport and inspire entrepreneurial riculture initiatives | |
| ble Development RTC will support | | |

OUR TEAM



Francis is a successful entrepreneur and consultant, having founded six of his companies (e-trade Africa, West African Doctors Network, Mednews, Sabi Learning, Innovation Africa, F&F Solar) and consulted on numerous other projects. In 2016, Francis moved to Freetown, Sierra Leone, where he now runs an incubator.

Francis holds a BSc in Economics and international Relations from the London School of Economics and an MBA from the Norwegian School of Management. Francis' cross-sector business expertise will provide the ARTC's Workspace participants to develop their business concept to its utmost potential."



EZI RAPAPORT C.E.O. OF EMPOWER AFRICA

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Ezi is a Harvard graduate who previously served as the Director of Global Trading for the Rapaport Group. Ezi Rapaport founded Empower Africa with the belief that sustainable economic development is the true way forward for Africa.



MAOZ AVIV - M.SC. AGRONOMIST DIRECTOR OF AGRICULTURE AT EMPOWER AFRICA

Maoz has been working on agricultural projects all over the globe for the past 20 years. His years in agronomic consulting, during which he advised government ministries, large multinational companies, and agritech start-ups have given Maoz extensive expertise regarding the technological and commercial aspects of the agriculture market.

Maoz's technical experience includes planning, executing, and supporting agricultural projects worldwide. Before joining Empower Africa, Maoz held the positions of Chief Agronomist and Ag-Tech team leader at one of the world's largest irrigation companies, prior to which he worked at a large multinational food and beverage company as Chief Agronomist and in senior management positions.

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ROY PELEG, M.SC. AGRONOMIST FOUNDER AND CEO OF GROWING SMART

Roy holds an M.Sc. and a B.Sc. in Agriculture Science from the Hebrew University of Jerusalem. He was previously a co-partner and CEO of Arazim Agro, an agribusiness-oriented consulting company. Before Arazim, he was the Head of Marketing and Business Development in the Asia/Pacific regions of Netafim Ltd.

During his seven years with Netafim, he served as Greenhouse Division Director and Corporate Greenhouse Division Agronomist. He has 22 years of experience in agribusiness, including five years with Fertilizers and Chemical (ICL).



MYRON SOFER. M.SC. AGRONOMIST

Myron has a B.Sc. degree (Agronomy) as well as M.Sc. Degree, (Plant Pathology) from the University of California, Davis. He has over 40 years' experience as an independent greenhouse vegetable and flower grower, as a farm adviser (Israel Min. of Agriculture Extension Service), and Director of the Southern Regional Applied Agricultural Research Station in the Western Negev of Israel.

Myron is a co-author of a number of published articles mostly in the field of plant pathology. He has extensive theoretical and practical experience in all aspects of intensive horticulture.



ARNON BEN CHAIM, PHD. AGRONOMIST

Arnon has a PhD (Agronomy) from the Faculty of Agriculture at the Hebrew University of Jerusalem and held postdoctoral fellowship at Cornell University in New York State. Arnon has been involved with practical agriculture for 12 years in a variety of crops for the local market and for export, including growing orchard fruits and varieties of vegetables in both open fields and grow-houses.

Arnon specializes in extensive farming, including irrigation, nutrition, and plant protection. Arnon has deep knowledge of the technology used in agriculture, including irrigation software, tensiometers, and remote sensing.



ERVIN LENDLER. M.SC. AGRONOMIST

Ervin holds a B.Sc. (Agriculture Science) and an M.B.A. from the Hebrew University of Jerusalem. Ervin has worked at CTS for over 12 years in research, project development, and management positions. Ervin is Growing Smart's head trainer in Ghana where Growing Smart provides agricultural training over 3-month courses.

FRANCIS STEVENS GEORGE, ADVISORY BOARD MEMBER, ARTC

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