



## **WFC Innovation Marketplace:** Exploring innovations shaping cocoa sustainability

### **(1) Traceability & Transparency**

#### **Starling - The Forest Trust**

Starling is a private and independent service allowing companies to verify their commitments to end deforestation from global supply chains. The goal of the service is to empower companies with high resolution monitoring and verification data to guide their decisions on where to invest and evaluate the effectiveness of policy implementation efforts. Starling is currently developing techniques for monitoring cocoa landscapes and is already being used by businesses sourcing palm oil.

#### **Global Forest Watch Pro - World Resources Institute**

An online platform that enables companies to identify, monitor, and manage deforestation risks in commodity supply chains. With this scalable management system, companies can plot the location of thousands of farms, run business-ready analyses, and share results through secure workflows.

#### **Sustainability Map Tool – International Trade Center (ITC)**

Sustainability Map is a new online platform enabling businesses around the world to trade more sustainably. It provides access to a wide-range of information related to sustainability initiatives, standards and trends. Businesses, the public sector, consumers and standards setting organizations can better understand the sustainability standards landscape and connect with business partners through the platform. The coverage of the data base of voluntary sustainability standards is more than 230 schemes that apply to 80 sectors and more than 180 countries.

#### **Global Traceability Platform – Ata Marie**

Integrated systems for environmental, ethical and legal compliance management and chain of custody, blockchain and High Carbon Stock (HCS)/High Conservation value (HCV). Utilizes cloud services, mobile applications and blockchain technologies for management of compliance and generation of secure digital compliance certificates, which can be incorporated into chain of custody systems.

#### **Africa Cocoa Village – Manobi**

Africa Cocoa Village is a model that safely connects millions of cocoa producers and consumers worldwide. It pioneers the phygitalization of the cocoa chain to secure the global sustainability, transparency, and honorable sourcing of the smart foods of tomorrow. It aims to serve 100,000 cocoa growers by 2020, doubling yield, tripling income, increasing grower credit 40-fold in respect with natural resources

#### **Supply Chain Intelligence and Visibility - SupplyShift**

SupplyShift is a networked platform for supply chain information, traceability, responsibility, built to empower companies with complex global supply chains to get information at any tier, for tracking, compliance & continuous improvement. Its flexible information network builds feedback loops that create new value to achieve key supply chain goals by making the right information accessible to anyone in the organization or in the supply chain. It operates at a global scale and has built industry networks in multiple sectors and commodities.



### **Beantracker - ChainPoint**

The Beantracker is a traceability platform based on the ChainPoint software which realizes data collection from the farmer coop down until production. Farmer coops, and all supply chain actors from bean to bar, are connected to the platform and have access to information that is relevant just for them. It is being used to support Tony's Chocolonely's mission to make the chocolate industry 100% slave-free by creating full transparency in the supply chain.

### **Chocolate Blockchain - SourceMap**

Bean to Bar Cocoa Traceability through Blockchain for the Cocoa Supply Chain: In 2013, Sourcemap introduced the first graph database connecting cocoa farmers to manufacturers in near-real time, and it's used today to map more than 150K cocoa farmers every season. Today we're integrating blockchain to provide continuous assurance of bean-to-bar traceability without violating any privacy concerns along the end-to-end cocoa supply chain.

## **(2) Inclusive Growth & Social Impact**

### **Equitable Business Model – Theo Chocolate**

Theo Chocolate was founded to address the problems of inequity in the cocoa supply chain. Its business model focuses on establishing pricing models that are fair and profitable for everyone in partnership with farmers. Our innovation showcases lessons from our experiences in the Democratic Republic of Congo for establishing and scaling the Theo pricing model.

### **When cocoa goes digital - Automatic school loan for farmers - Advans**

Advans has recently developed an automatic school loan accessible via mobile: the disbursed amount is based on each client's savings and cocoa deliveries history. The first automatic digital loan in Côte d'Ivoire, helps farmers send their children to school at the beginning of the year, rather than 2 months later when cocoa payments come in, something almost half of cocoa farmers were doing previously. The farmer can withdraw the loan directly from their mobile wallet. Thanks to Advans digital financial services, Ivorian farmers can access a full range of financial products adapted to their needs and those of their children.

### **Impact Investing for smallholder farmers – OikoCredit**

Oikocredit recently began to implement a Price Risk Management Program (PRM). The PRM program focuses on strengthening 22 farmer coffee coops in Latin America to improve their internal capacities to understand and implement adequate price risk management strategies. Our expectation is that the upfront investment we are making in tools will be replicable and scalable with other coffee cooperatives worldwide as well in other sectors like cocoa.

### **Bring the Bank to Her - Women's World Banking**

Having a savings account is the first point of access to the formal economy for many women. It helps her plan for her and her family's future, protect herself in times of crisis, and even build her business with access to loans and other offerings from the bank. Women's World Banking works with NBS Bank in Malawi to introduce a tailored savings account for low-income, unbanked rural people, especially women, relying on agency banking, mobile technology, and community-based marketing to reach women where they are.

### **System Innovation for Women's Economic Empowerment (SIWEE) - Oxfam**

The goal of the SIWEE initiative is to enable women's economic empowerment in agriculture in a systemic and transformative way. This innovative approach will bring together a coalition of business, civil society and government to create transformative change in agricultural supply chains. SIWEE will focus on a small number of select crops in three to four countries, and will



bring together the actors for whom those crops and countries really matter. Ghana is the first country where we are testing this approach where we are focusing on cocoa, shea, and sorghum.

### **Financial leverage to tackle undernutrition - The Power of Nutrition**

The Power of Nutrition is a UK-based foundation working to bring in new funders to tackle undernutrition using financial leverage. Nearly one in four children under 5 is stunted due to undernutrition and half of all deaths of children under 5 (around 3 million deaths per year) are the result of undernutrition. With support from our founders (UK Aid, the Children's Investment Fund Foundation, the UBS Optimus Foundation, UNICEF and the World Bank), we are able to multiply every dollar we raise by at least four times and invest in programmes to improve nutrition for children and women in some of the poorest countries in the world including a proposed programme in cocoa-producing communities in Cote d'Ivoire.

## **(3) Efficiency & Professionalization**

### **Digital Weather Data Platform - Kukua**

An end to end weather service providing weather information throughout the value chain to increase sustainability, resilience and adaptation. It includes an innovative hardware solution observing the weather on the ground through to a range of tailored delivery channels for the provision of weather information at every level of the value chain. It improves the value chain of multinational agri-businesses by providing them with weather data, and their suppliers with weather information while addressing the chronic lack of weather information available in agricultural value chains, as well as understanding of its application and potential for positive effects on value chain sustainability in the face of climate change.

### **Crop Coat - Crop Enhancement**

CropCoat is a non-toxic, biodegradable film that coats plant surfaces such as leaves, stems, and fruit to reduce the need for harmful pesticides. It can be applied on its own to as a microlayer to cocoa pods and in combination with biological controls to improve crop quality and yield while reducing the frequency of pesticide applications throughout a growing season.

### **Olam Farmer Information System (OFIS) - Olam**

OFIS is Olam's smallholder and first mile data management system. Through a proprietary Android application OFIS is able to collect numerous data points including farmer registration and survey data, GPS points, transaction data and training information. This data is then uploaded to the OFIS website where it can be accessed by users to manage the supply chain, support farmers and improve sustainability impact. Farmers are able to benefit through real time information flows and personalised Farm Development Plans. So far OFIS has been rolled out to 23 countries and over 155,000 farmers.

### **Productivity Investment Menu (PIM) – Touton**

Cocoa farms vary in size, age of trees, and general state. In the same way, farmers do not all have the same capacity in terms of manpower and financial resources. Touton's Productivity Investment Menu (PIM) offers an 'a la carte' choice of investment options that uses demo plots to show farmers how combined treatments in Good Agricultural Practices, use of Compost, Agrochemicals and Fertilizer can optimize yield on farms.

### **Affordable and profitable replanting - Arysta Callivoire**

Arysta Callivoire has developed an innovative model to address financial inaccessibility or farm rejuvenation for farmers because of the high investment costs and loss of revenue incurred in



the first years of production. This model helps at the same time to make cocoa growing more viable economically and environmentally through intensification, income diversification, and forests protection.

### **Innovative Fermentation Process – Cémoi**

Yeast optimization and new post-harvest cocoa handling at the fermentation stage increases the flavors and quality of cocoa beans at CEMOI “local development hubs” in Ivory Coast. By optimizing natural yeast from natural fruits and vegetables and a reduce time from pods to fermentation boxes, farmers can earn additional revenues from enhanced flavor cocoa beans. Developing a premium cocoa value chain can create an alternative commercial channel for Ivorian cocoa farmers and additional premium over cocoa commodity beans. Enhancing quality and selling “premium” cocoa bean based on flavor and aroma criteria is also another option to increase farmers revenues.

### **Land selection and plantation design – Andean Cacao**

Andean Cacao is revolutionizing the cacao value chain in Colombia by converting freehold cattle-grazing land and integrating smallholder farmers to create a sustainable high-tech cacao producing platform. Prior planting any cacao, we go through a rigorous land search, due diligence, and plantation design process which is geared towards the de-risking of our investment. This pre-planting stage is a precursor to efficient farm management and increased productivity, therefore ensuring the long-term success of our cacao plantation.

### **Agribusiness Market Ecosystem Alliance (AMEA) – ACDI-VOCA**

AMEA works to create standardized, high quality business skills training for farmers, delivered by high quality, credentialed trainers. The problem we're trying to solve is a lack of global standards for professional farmer organizations to ensure that we have greater scale and impact of farmer professionalization.

### **Data driven farmer professionalism - ScopeInsight**

SCOPEinsight provides business intelligence to create opportunities in agriculture by measuring the level of professionalism of farmers and their organizations. It provides a standardized and scalable approach to measure and benchmark how farmers manage their business. Since 2010, SCOPEinsight has trained over 400 assessors, over 1800 assessments in 34 countries spanning 24 agricultural sectors and reaching 5 million farmers worldwide. Our clients include global agri-businesses, NGOs, financial institutions as well as multilateral development and food security organizations.

### **Cocoa Productivity Enhancement in Peru – Technoserve Peru**

Improving productivity and inclusiveness in the Peruvian cocoa sector includes a combination of innovations across the value chain. At the farmer level, TechnoServe introduced a new method of pruning and fertilization that significantly boosted yields; enhanced market linkages through creative fermentation technologies and aggregation schemes; and promoted smaller enterprises involving women and youth, to improve community inclusion. This holistic approach to innovation resulted in 20,000 cocoa farmers increasing their yields by up to 50%; household incomes increasing by 30%; producer associations exporting \$14 million; and the emergence in these project areas of a vibrant artisan chocolate.