# Climate Smart Agriculture

Selection of Dutch Solutions (August 2017)











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#### **Foreword**

Drought, losses of cattle, reduced harvests, land degradation, water scarcity are happening in South Africa. Use of technologies to adapt or to mitigate these are not common practice in all sectors and is often limited to smaller groups of (commercial) farmers. Knowledge dissemination for implementation at farm level and climate proofing of agricultural value chains are important. Climate Smart Agriculture includes proven practical techniques but also innovative practices. Climate mitigation, and adaptation technologies can be manifold and can concern (but are not limited to) the introduction of new varieties of plant material, use of water efficient instruments, soil improvement, use of inputs. It is about getting existing technologies off the shelf and into the hands of farmers and developing new technologies to meet demands of climate change.

The Netherlands is a world-leading exporter of agri-food products and leading in innovation. Dutch agriculture remains successful by continually investing in sustainable development and the renewal of agricultural production chains, where farmers are full partners in the agricultural production chains. The Netherlands supports also the Global Alliance for Food security, which has embraced the Climate Smart Agriculture approach developed in the Netherlands.

The Netherlands is a reliable, innovative and solution-driven partner in the AGRI sector. To truly understand the unique South African context and achieve real results in the area of agriculture we actively engage with South African stakeholders. Through these Dutch-South African Partnership / cooperation in the agriculture sector we co-create ideas and innovations for a sustainable future in South Africa and the Netherlands. Examples of these are the #cocreateSA and Orange Corner initiatives.

#cocreateSA is a platform for South African and Dutch counterparts to exchange innovations for a sustainable future. It is an initiative by the Kingdom of the Netherlands in South Africa and was born during the three-week long event, Department of Design, the Dutch contribution to WDC2014. It was here - during the many workshops, lectures, events, presentations and functions - that the #cocreateSA conversation began.

The Kingdom of the Netherlands in South Africa is still committed to bring together the South Africans and the Dutch. We do so by keeping the #cocreateSA platform alive, stimulating the conversation, offering a platform for innovations and facilitating collaborations. By continuing to invest in this platform, we aim to inspire everyone to work together, make a difference and #cocreateSA.

Orange Corners is a platform for entrepreneurs to learn, stimulate their creativity, grow their business and expand their professional network. Orange corners provides business development services such as mentorship, marketing, legal, accounting, networking and training. Orange corners can be a format to be used for a custom-made program on Agrofood/Horticulture to stimulate entrepreneurship. The first Orange Corner was established in Johannesburg.

This booklet, which was gathered as part of a study commissioned by the Government of the Kingdom of the Netherlands, does offer information about companies that have something real to offer and do want to be part of the solution to the challenges that are there.

Dr. Jack Vera Agricultural Counsellor Embassy of the Kingdom of the Netherlands

# 1. Introducing the Netherlands

# 1.2. Introducing the Netherlands

#### How do the Dutch make a difference?

Through their interactive approach to finding innovative solutions to the big challenges facing the world today. The Dutch way of thinking and working has been shaped by centuries of living in the low-lying delta of the Netherlands. Through the ages, the Dutch have joined forces to find ingenious ways to tackle challenges like water, urbanization, energy, food, health and security. By being inventive,

pragmatic and open to new challenges, the Dutch have created a flourishing and resilient land. The Netherlands is a constantly evolving ecosystem of cities, industry, agriculture and nature, all integrated through smart infrastructure. It is a source of knowledge and experience that the Dutch are keen to share with others. Learning from the past to create a better future. Together, seeking sustainable solutions for the most livable world

#### Worldwide ranking

- 1st Best performing European healthcare system (2013, Euro Health Consumer Index)
- 1st Production and auctioning of cut flowers and flower bulbs
- 2nd Number of broadband connections per 100 inhabitants (39.4%)
- 2nd Density of road network
- 2nd Export of agricultural products (103.3 billion US Dollar)
- 2nd Quality of Water Transportation (9.04)
- 2nd Logistics performance Index (4.05)
- 4th Largest seaport in the world (Port of Rotterdam), largest in Europe
- 6th Exporter of goods (555 billion US Dollar)



- 7th Foreign direct investment in the Netherlands (From Europe)
- 8th Import of commercial services (119 billion US Dollar)
- 9th Dutch investments abroad (976 billion US Dollar)
- 9th Importer of goods (501 billion US Dollar)
- 9th Export of commercial services (134 billion US Dollar)

#### Facts & Figures

- · Official name Kingdom of the Netherlands
- $\cdot \ \text{Form of government } \ \text{Constitutional monarchy, parliamentary democracy}$
- Head of State His Majesty King Willem-Alexander, King of the Netherlands, Prince of Orange-Nassau
- · Capital Amsterdam
- · Seat of government The Hague
- · Administrative structure Twelve provinces and the overseas territories of Aruba, Curacao and St. Martin. The overseas island of Bonaire, Saba and St. Eustatius, all three of which are situated in the Caribbean, are 'special municipalities of the Netherlands'
- · Surface area 33.800 km2
- · Location Western Europe, by the North Sea, bordering Belgium and Germany
- · Number of inhabitants 17.003.214 (November 2016)
- · Number of inhabitants per km2 503 (November 2016)
- · Monetary unit Euro
- · Languages Dutch, Frisian

### 1.3. South-Africa and the Netherlands

- The Netherlands is one South Africa's major trading partners, with Dutch business well-represented in the country. South Africa is our largest trading partner on the African continent.
- Many Dutch businesses are involved in creating water and sanitation facilities, and with various projects to link the country's ports with the hinterland, known as corridor development.
   The Netherlands is supporting South African business in the water, transport and logistics and agricultural sectors by sharing expertise.
- The Netherlands stimulates economic development in South Africa with instruments (grants, loans, equity) that can be found at: www.rvo.nl
- The South African–Netherlands Chamber of Commerce (SANEC) supports businesses in the Netherlands and South Africa, providing information on market opportunities, organising trade missions and maintaining a large network open to businesses
- The Netherlands occupies a unique position in South Africa thanks to our cultural and historical ties, including the Afrikaans language. The Dutch embassy plays an important role in cultural exchanges between the countries, with partnerships in areas including music, literature, design, fashion and architecture.
- The Netherlands is the second-largest exporter of agricultural products in the world, after the United States. It is known for its flowers, cheese, tomatoes, vegetables and beer.
- The Dutch horticulture sector has an extensive logistics network. Vegetables harvested in the Netherlands can be sold in New York the very same day.

# 2. Sustainable Development Goals

#### 2,1. Introduction

In September 2015, world leaders adopted the Sustainable Development Goals (SDGs) and committed to 17 goals to eradicate poverty, promote peace and equality, fuel inclusive growth, and protect the environment.

The SDGs present a historic opportunity for businesses to engage more deeply as a strong and positive influence on society. As an engine of economic growth and employment and a source of technology and innovation, business has a critical role to play and a self-interest in contributing to delivering the SDGs. First and foremost, business cannot succeed in societies that fail and therefore has a vested interest in stable and prosperous societies. By developing a better understanding and proactively addressing the SDGs, companies will be able to better manage their risks, anticipate consumers' demand, secure access to needed resources, differentiate themselves from competitors, and strengthen their supply chains. In essence, the SDGs can help to connect business strategies with global priorities.

Companies can use the SDGs as an overarching framework to shape, steer, communicate and report on their strategies, goals and activities, allowing them to capitalize on a range dof benefits such as identifying future business opportunities; enhancing the value of corporate sustainability; strengthening stakeholder relations and keeping pace with policy developments; stabilizing societies and markets; and using a common language and shared purpose with stakeholders.

The Netherlands is strongly engaged in translating the SDGs' ambitions and words into business action underpinned by business solutions: business-led ventures that are impactful, scalable, measurable, replicable, and going beyond business as usual.

A tangible example of a solution is inclusive business, a term coined by the WBCSD in 2005 referring to ventures that go beyond philanthropy by integrating low-income communities into companies' value chains as customers, suppliers, retailers, and distributors. Inclusiveness is part of the Dutch vision for collaboration between private sector, governments, NGOs and the Research institutes

Quote: Peter Bakker, CEO WBCSD:

"The world in which we live is global, and interdependent, and that is what the new SDGs recognize. The new development agenda has a truly universal framework that goes beyond the separatism of simply environmental, social or economic sustainability. It is an inclusive agenda for world prosperity that incorporates the safe operating space of a stable and resilient planet."

#### 2.2. Overview

The overview provides narrative examples of inclusive business solutions that deliver value to a company whilst contributing to achieving the SDGs. Please note that the overview only shows the main SDG contributed to by a business solution. We acknowledge the fact that SDGs are interconnected, and therefore – in most cases – business solutions contribute, either directly or indirectly, to more than just one SDG.



Bank the unbanked through micro-credits and financial services (leveraging local distribution and mobile technology)

Micro-insurance products to increase resilience of low-income populations



Produce and provide access to fortified food and supply of micronutrients
Develop innovative and more efficient farming technologies to increase productivity and income of smallholder farmers



Provide access to affordable, high-quality healthcare through decentralized clinics and mobile health workers

Leverage IT-based solutions to avoid stock-outs of live-saving drugs in rural areas



Combine expansion of internet coverage with web-based learning tools Set up vocational training programs targeting disadvantaged youth and women



Distribute your products through local, female entrepreneurs, thereby empowering their role in society and economy

Strengthen access to sexual & reproductive health care products, services and medicine



Expand water & sewage infrastructure to unserved areas

Develop low-cost water filtration systems for end-customers or whole villages and informal settlements



Invest in solar-powered appliances and solar home systems or establish shops powered by solar energy

Leverage hydropower to electrify remote villages



Train and employ local communities

Source materials from small-scale producers, sell and deliver products and services through local retailers and workforce



SDG 9 aims at innovation, resilient infrastructure (key elements for successful BoP ventures) and inclusive industrialization in terms of increased industrial employment as well as promoting growth of small-scale industrial enterprises.



SDG 10 targets to achieve income growth of the bottom 40% population at a higher rate than the national average as well as promoting social and economic inclusion, aligning itself to the generation of sustainable income opportunities through inclusive business solutions.



Invest in innovation of building materials and techniques, like earth-based bricks, taking into account local resources

Provide construction training and access to housing loans for low-income families



Reduce post-harvest losses through improved value chain management in rural areas



Create smallholder insurance based on disaster risk reduction measures



Train and cooperate with fisher communities in improved fishing techniques and marine conservation

Promote sustainable fishing and procure from small fishing communities



Restore plantations affected by natural disaster, reviving local agriculture to benefit affected communities



 $Employ former combatants \ and \ integrate \ different \ ethnic \ groups \ in \ post-conflict \ settings \ into \ the \ value \ chain$ 

Increase employment of small-scale miners and source conflict-free minerals for high-end technologies



SDG 17 highlights the importance of partnerships as means of implementing action geared towards the SDGs. This holds true

especially for scaling inclusive business solutions, as we have seen that most barriers cannot be addressed by business or any other stakeholder on its own.



Source: WBCSD, Inclusive Business SDGs

Some SDGs offer themselves more than others to concrete examples of inclusive business opportunities, while other goals are formulated reflecting a broader category of macro-economic targets or emphasize enabling factors (e.g. policies, partnerships). Nevertheless, they can either be influenced by inclusive business or play a key role in implementing these solutions.

### 2.3. Business Call to Action (BCtA)

Launched at the United Nations in 2008, the Business Call to Action (BCtA) aims to accelerate progress towards the Sustainable Development Goals (SDGs) by challenging companies to develop inclusive business models that engage people at the base of the economic pyramid (BoP) – people with less than US\$8 per day in purchasing power – as consumers, producers, suppliers, distributors of goods and services and employees.

The BCtA is a unique multilateral alliance among donor governments – including the Dutch Ministry of Foreign Affairs, the Swedish International Development Cooperation Agency (Sida), the UK Department for International Development (DFID), the US Agency for International Development (USAID), and Finland's Ministry of Foreign Affairs, and with the United Nations Development Programme, which hosts the secretariat. It also benefits from the collaboration of leading global institutions such as the United Nations Global Compact.

Over 190 companies, ranging from multinationals to social enterprises, and working in 66 countries, have responded to the BCtA by committing to improve the lives and livelihoods of millions in developing countries through access to markets, financial services, affordable healthcare, water and sanitation, education and other critical services. BCtA member companies are market leaders that provide examples of successful, profitable and scalable models for reaching poor communities and contributing to global development.

This offers opportunities to South African emerging farmers to partner up with corporates to jointly work towards a mutual beneficial collaboration.

### 2.4. Useful links

#### **Usefull links:**

CEO Guide for SDGs https://youtu.be/ovZYYdndB5Q

SDG Hub http://sdghub.com

WBCSD www.inclusive-business.org
BCtA www.businesscalltoaction.org

FAO-SDGs www.fao.org/sustainable-development-goals/en

#### Animations / film

A Look at the Sustainable Development Goals → https://voutu.be/5GondS3uRdo

Sustainable development: what, where and by whom? → https://youtu.be/4s]-uixn7]g (Kitty van der Heijden at TEDxHaarlem)

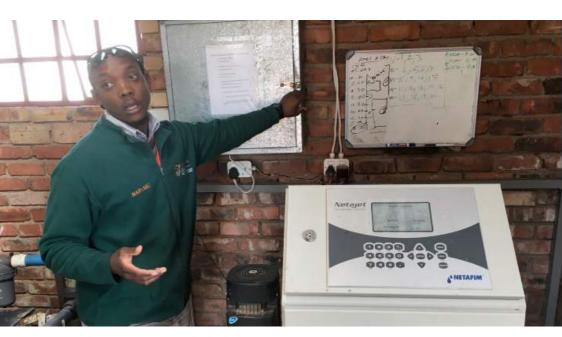
WBCSD CEO Guide to the SDGs → https://youtu.be/ovZYYdndB5Q

# 3. Climate Smart Agriculture

## 3.1. The need to transform Agriculture

By 2050 approximately 70% more food will have to be produced to feed growing populations, particularly in developing countries2. Agriculture is already causing increased conversion of lands and placing greater pressure on biological diversity and natural resource functions than ever before. As climate change causes temperatures to rise and precipitation patterns to change, more weather extremes will potentially reduce global food production. Agriculture is rapidly evolving to address these drivers of change, for instance through irrigation, fertilizers and the provision of better germplasm for higher productivity and improved products. In many less developed parts of the world, increased production has occurred through the expansion of agricultural lands rather than through intensification. At a global scale, both intensification and extensification are currently having a significant negative effect on the environment; depleting the natural resource base upon which we rely. The need to reduce the environmental impacts while increasing productivity requires a significant change in the way agriculture currently operates.

'Climate-smart agriculture' has the potential to increase sustainable productivity, increase the resilience of farming systems to climate impacts and mitigate climate change through greenhouse gas emission reductions and carbon sequestration.



#### 3.2. How about scale

Climate-smart agriculture can have very different meanings depending upon the scale at which it is being applied. For example, at the local scale, it may provide opportunities for higher production through improved management techniques such as more targeted use of (organic) fertilizers. At the national scale it could mean providing a framework that incentivizes sustainable management practices. And at the global scale it could equate to setting rules for the global trade of biofuels. It is not clear how actions at one scale may affect the others. For smallholder farmers in developing countries, the opportunities for greater food security and increased income together with greater resilience will be more important to adopting climate-smart agriculture than mitigation opportunities. For intensive mechanized agricultural operations, the opportunities to reduce emissions will be of greater interest.

#### 3.3. Constraints

Many climate-smart agricultural practices can be integrated into a single farming system and will provide multiple benefits that can improve livelihoods and incomes. However, there are practices that cannot be integrated because they impact upon other elements of the farming system. For example: the timing of a practice may lead to labour constraints; high investment or maintenance costs may exceed the capacity of asset poor farmers; and competition for crop residues may restrict the availability of feed for livestock and biogas production. Identifying these constraints is important to developing economically attractive and environmentally sustainable management practices that have adaptation and mitigation benefits.

## 3.4. Circular Economy

The circular economy has of late taken a more prominent and pivotal role in the developed world as well as the global south, regarding sustainable growth and development. The most widely used definition of the circular economy was drafted by the Ellen MacArthur Foundation and states that: "The circular economy refers to an industrial system that is restorative and regenerative by intention and design." Put in simple terms, this means that this industrial system aims to replace the conventional linear process of "taking, making and discarding" with a circular process that returns materials to the economy as re-usable inputs into new products and uses renewable energy sources.

The cornerstone of this thinking is premised on reducing, reusing and recycling products or materials they are made of, but also emphasizing the importance of maintenance and repair in value chains. The aforementioned process or paradigm shift needs to be collaboratively driven by various stakeholders in society; namely governments, companies, institutions and individuals as a collective if we are serious about achieving the UN endorsed Sustainable Development Goals (SDGs). Hence, the European Union (EU) in partnership with the South African government and the Kingdom of the Netherlands, has put the circular economy on the agenda through organising a parallel seminar on the transition to the circular economy during the World Economic Forum 2017 earlier this year, in Durban, South Africa.

With this in mind, the South African landscape offers a plethora of opportunities for the circular economy and the Netherlands aims to connect with South African partners, to learn and foster a platform to enable a living lab for circular economy thinking and innovation to thrive. In fact, a part of the Circular economy is already taking place in South Africa where other nations can learn from the thinking and creativity utilised here to give renewed value to materials. Although the circular economy cannot be fully integrated into the South African landscape at present, innovative solutions and ideas are exemplified through concepts like AgriProtein, Aqua Soil Approach and the recycling of PET bottles to increase circularity. It is imperative that we increase our efforts in enhancing energy conservation and decrease our resource dependency given the pressures on climate change, high population growth and increased migration in South Africa and the Netherlands. Through adopting approaches like Circular Economy, the Smart Cities Framework and Climate Smart Agriculture, South Africa and the Netherlands can exchange knowledge, interrogate feasible business propositions, and share adoptable best practices in our collaborative effort to close the loop.

#### **Useful links** 3.5.

New tools for farmers

: https://youtu.be/PQUI5wOHCYQ











#### AppsforAgri B.V.

#### 1. iCrop:

iCrop is the interactive software solution for agribusiness companies who are looking to make a leap forward in digital services. All information, advice and visits in a user-friendly and secure on-line environment. iCrop is a Saas (software-as-a-service) solution that can be implemented specifically for agricultural organizations to optimize harvest, reducing water usage, protect crops and lower fertilizer usage.

A.L. (Aart) Monster Product Manager

#### AppsforAgri B.V.

Stadhuisplein 345A 5038 TH Tilburg The Netherlands P +316 534 49 706 E aart@appsforagr

Customers

Others, like

□Agents

#### 2. SmartFarm

Product / service / technology offers solutions in the following fields

Tick the appropriate box(es) to which items the product / service / technology offers solutions for:

IoT sensors: SmartFarm provides sensors and information to improve the growths and quality of your crops!

The intelligent SmartFarm sensors are easy to use and deliver realtime information on crops and soil. With help of the sensors, farmers can plan their crop protection, irrigation as well as fertilization more effectively to improve the productivity and quality of their crops.

- SmartFarm can Validated disease & plague models for more than 35 crops and 80 disease worldwide
- SprayWeatherWise for most efficient spraying
- Knowledge about weather and crop protection

<b>7</b> ∫Soil	✓ Input (material)
□CO2	☑ Early warning systems
☑CO2 ☑Water	Geo data
Solar	□Wind
$\overline{f Z}$ Others, like (insert theme)Sustainable food product	ion
Sustainable Development Goals	
Γhe company focusses with the product / service / tech	nology on the following SDG(s) (see for explanation
chapter on SDGs).	
Tick the appropriate themes (you can tick of course mo	ore than one):
🗹 No 1 No poverty	☐ No 10 Reduced inequalities
☑No 2 Zero hunger	☐ No 11 Sustainable cities and communities
☐ No 3 Good health and well-being	☑ No 12 Responsible consumption and production
☑No 4 Quality education	□ No 13 Climate Action
□ No 5 Gender equality	□ No 14 Life below water
□ No 6 Clean water and sanitation	□ No 15 Life on land
□ No 7 Affordable and clean energy	☐ No 16 Peace, justice and strong institutions
☐ No 8 Decent work and economic growth	□ No 17 Partnerships for the goals
_	ino 17 Partilerships for the goals
☐ No 9 Industry, innovation and infrastructure	
Looking for following kind of partners in South Africa	
Fick the appropriate boxes for which kind of partners the company is looking for:	

(Joint Venture) Partners

☐ Distributors



#### SolteQ Energy by

Wind driven desalination, 100% sustainable and competitive with fossil driven systems.

The heart of the system is a hydraulic windmill: no gear, no generator in the gondola, just a hydraulic high pressure pump. This high pressure is used to drive a reverse osmosis system. In this way we use the wind energy on the most effective way, improving the efficiency enormous and getting



more capacity from the windmill compared to full electric ones. Excess wind energy is used to produce electricity and in combination with solar energy we create an off-grid micro network (if no electric grid is available). This can be used as well for periods of wind flaws. The fresh water can be used for irrigation, drinking water for animals or drinking water for humans.

Recycling of water with this system is another option.

(Joint Venture) Partners

☐ Distributors

#### H. Rost van Tonningen <sup>CEO</sup>

#### SolteQ Energy bv Agora 4 8934 CJ Leeuwarden The Netherlands

E h.tonningen@solteq.eu www.freshwatermill.com

✓ Customers

☐ Agents

Others like

Tick the appropriate box(es) to which items the product / service / technology offers solutions for:	
Soil	☐ Input (material)
□CO <sub>2</sub>	☐ Early warning systems
☑Water	☐ Geo data
✓ Solar	₩ind
☐ Others, like	
Sustainable Development Goals	
The company focusses with the product / service / ted	hnology on the following SDG(s) (see for explanation
chapter on SDGs).	
Tick the appropriate themes (you can tick of course n	nore than one):
☐ No 1 No poverty	☐ No 10 Reduced inequalities
□ No 2 Zero hunger	☑No 11 Sustainable cities and communities
$\square$ No 3 Good health and well-being	$\square$ No 12 Responsible consumption and production
☐ No 4 Quality education	☐ No 13 Climate Action
☐ No 5 Gender equality	☐ No 14 Life below water
☑ No 6 Clean water and sanitation	□ No 15 Life on land
☑ No 7 Affordable and clean energy	☐ No 16 Peace, justice and strong institutions
$\square$ No 8 Decent work and economic growth	☐ No 17 Partnerships for the goals
☑No 9 Industry, innovation and infrastructure	
Looking for following kind of partners in Soutl	1 Africa

Tick the appropriate boxes for which kind of partners the company is looking for:



#### SoilCares Africa

Global solutions for soil analysis and crop monitoring.

At SoilCares, we offer affordable packages to give farmers worldwide access to our database and agricultural expertise. SoilCares Lab-in-a-Box is direct on-site access to soil testing services only laboratories could provide until now. SoilCares Soil Scanner instant, on-the-spot data and recommendations to get more out of your soil.

Pieter Smits Sales Director Africa

#### SoilCares Africa

✓ Customers✓ Agents

Others like

Cara House Karen road in Nairobi Kenya P +254 728 970 136 E africa@soilcares.com



#### √ Soil ☐ Input (material) □ CO2 ☐ Early warning systems □Water ☑ Geo data $\square$ Wind □ Solar Others, like **Sustainable Development Goals** The company focusses with the product / service / technology on the following SDG(s) (see for explanation chapter on SDGs). Tick the appropriate themes (you can tick of course more than one): ☐ No 1 No poverty ☐ No 10 Reduced inequalities ☐ No 2 Zero hunger ☐ No 11 Sustainable cities and communities ☐ No 3 Good health and well-being ☑ No 12 Responsible consumption and production ☐ No 4 Quality education ☐ No 13 Climate Action ☐ No 5 Gender equality ☐ No 14 Life below water No 6 Clean water and sanitation No 15 Life on land ☐ No 7 Affordable and clean energy ☐ No 16 Peace, justice and strong institutions ☐ No 17 Partnerships for the goals No 8 Decent work and economic growth □ No 9 Industry, innovation and infrastructure

(Joint Venture) Partners

☐ Distributors

Tick the appropriate boxes for which kind of partners the company is looking for:

Looking for following kind of partners in South Africa

Product / service / technology offers solutions in the following fields

Tick the appropriate box(es) to which items the product / service / technology offers solutions for:



#### SunCooler (FirmTec B.V.)

The SunCooler (patent pending) is the ideal solution for static storage. It is a mobile cooling device that cools fruit, vegetables, meat, fish, dairy or medicines in a cheap, sound and sustainable way on the spot.

There is no need for fuel, generator, grid or even batteries.

It creates the possibility to cool cheaply, and on the spot (no transportation to cooling facility), lowering CO2 emissions and hardly any technical maintenance

Nature forces all farmers to harvest at about the same time. This forces them to sell their products quickly, if there is no possibility for cooling. Therefore, prices are relatively low and often many products turn bad. This not only limits food availability, but also risks food security and food safety.

The availability of a SunCooler contributes in many ways and makes life easier. No hassle with diesel, generators, noise and logistic issues and it contributes simply and fast to food security and food safety in remote areas. Link to our SunCooler information video: https://youtu.be/ioi5d3xlip8

Natasja van der Vlist Founder

Agents

Others like

SunCooler (FirmTec B.V.)
Westbroekse Binnenweg 27
3612 AG Tienhoven
The Netherlands
P +316 167 68 319

□Soil	✓ Input (material)
<b>☑</b> CO2	☐ Early warning systems
₩ater	☐ Geo data
✓Solar	$\square$ Wind
☑ Others, like (cold storage)	
Sustainable Development Goals	
The company focusses with the product / service / t	echnology on the following SDG(s) (see for explanation
chapter on SDGs).	
Tick the appropriate themes (you can tick of course	more than one):
☑ No 1 No poverty	☐ No 10 Reduced inequalities
☑ No 2 Zero hunger	✓ No 11 Sustainable cities and communities
☑ No 3 Good health and well-being	☑ No 12 Responsible consumption and production
☐ No 4 Quality education	□ No 13 Climate Action
☐ No 5 Gender equality	□ No 14 Life below water
☑ No 6 Clean water and sanitation	☑ No 15 Life on land
☑ No 7 Affordable and clean energy	$\square$ No 16 Peace, justice and strong institutions
☑ No 8 Decent work and economic growth	☑ No 17 Partnerships for the goals
☑ No 9 Industry, innovation and infrastructure	
Looking for following kind of partners in South Africa	
Tick the appropriate boxes for which kind of partne	ers the company is looking for:
Customers	☐ (Joint Venture) Partners

Distributors

Product / service / technology offers solutions in the following fields

Tick the appropriate box(es) to which items the product / service / technology offers solutions for:



#### **Agrics Company Limited**

Agrics provides a range of agricultural products and services on credit to smallholder farmers in East Africa. By bridging the last mile to the farmers - bringing access to improved agronomic practices, credit and quality inputs - Agrics strives to increase the smallholders' yield, income and food security.

Innovation is a means for Agrics to grow its market share, while increasing its impact for smallholders. By bringing the latest technology applications and farming practices to the farmers, Agrics continues to improve its sustainability, efficiency and impact.

Violanda de Man Portfolio Manager Agribusiness

Agrics Company Limited Smallepad 30H 3811 MG Amersfoort The Netherlands P +31610989355 E violanda.deman@ics.nl

#### For example;

- Deployment of satellite data to provide tailored information and advice to smallholders (around 15,000 farmers receive smart advice in 2017):
- Development of a blockchain technology-based, affordable and flexible crop insurance for smallholders;
- Improved data analytics in order to provide new management information as well as opportunities for alternative revenue streams.

Tick the appropriate box(es) to which items the proc	luct / service / technology offers solutions for:
□Soil	✓ Input (material)
□CO <sub>2</sub>	☐ Early warning systems
□Water	☐ Geo data
□Solar	□Wind
☑Others, like (distribution, advice)	
Sustainable Development Goals	
The company focusses with the product / service / te chapter on SDGs).	chnology on the following SDG(s) (see for explanation
Tick the appropriate themes (you can tick of course it	more than one):
☑ No 1 No poverty	☐ No 10 Reduced inequalities
☑No 2 Zero hunger	$\square$ No 11 Sustainable cities and communities
☐ No 3 Good health and well-being	$\square$ No 12 Responsible consumption and production
☐ No 4 Quality education	□ No 13 Climate Action
☐ No 5 Gender equality	☐ No 14 Life below water
$\square$ No 6 Clean water and sanitation	□ No 15 Life on land
☐ No 7 Affordable and clean energy	$\square$ No 16 Peace, justice and strong institutions
$\square$ No 8 Decent work and economic growth	☐ No 17 Partnerships for the goals
$\square$ No 9 Industry, innovation and infrastructure	
Looking for following kind of partners in Sout	h Africa
Tick the appropriate boxes for which kind of partner	s the company is looking for:
Customers	☐ (Joint Venture) Partners
□Agents	□ Distributors
□ Others, like	



#### eLEAF

Product / service / technology offers solutions in the following fields

eLEAF is a Dutch high-tech company that pioneers in operational satellite based solutions. We provide data and applications for Agriculture, Water Management, Crop Insurance and Crop Certification. Our data is used to assess land & water productivity for sustainable agricultural and water management practices. Our mission is to be the global reference for operational and reliable high quality data on crop growth and water use, to increase food production, support sustainable water management and protect environmental systems.

Ruben Goudriaan Project Manager

#### **eLEAF**

Others like

Hesselink van Suchtelenweg 6 6703 CT Wageningen The Netherlands P +313 177 29 000 E Ruben goudriaan@eleaf.com We work in an international business environment in which we provide services to farmers, governments and multilateral organizations like FAO and the World Bank. In South Africa eLEAF runs the FruitLook portal (www.fruitlook.co.za) providing farmers a weekly overview of their crop production and water use through satellite monitoring aiming to improve efficiency of agricultural water use. A better informed farmer makes better management decisions showing water use efficiency increases between 10% - 30%!

lick the appropriate box(es) to which items the produc	ct / service / technology offers solutions for:	
□Soil	☐ Input (material)	
□CO <sub>2</sub>	✓ Early warning systems	
<b>☑</b> Water	☑ Geo data	
□Solar	□Wind	
☑ Others, like agricultural production monitoring		
Sustainable Development Goals		
The company focusses with the product / service / tech	nology on the following SDG(s) (see for explanation	
chapter on SDGs).		
Tick the appropriate themes (you can tick of course mo	ore than one):	
☐ No 1 No poverty	☐ No 10 Reduced inequalities	
☑ No 2 Zero hunger	$\square$ No 11 Sustainable cities and communities	
☐ No 3 Good health and well-being	☑ No 12 Responsible consumption and production	
☐ No 4 Quality education	☑ No 13 Climate Action	
☐ No 5 Gender equality	□ No 14 Life below water	
☐ No 6 Clean water and sanitation	□ No 15 Life on land	
☐ No 7 Affordable and clean energy	☐ No 16 Peace, justice and strong institutions	
$\square$ No 8 Decent work and economic growth	□ No 17 Partnerships for the goals	
☐ No 9 Industry, innovation and infrastructure		
Looking for following kind of partners in South Africa		
Tick the appropriate boxes for which kind of partners the company is looking for:		
	✓ (Joint Venture) Partners	
□Agents	□ Distributors	



D. Versloot (Danny)

# AgriConnect

3453 VV De Meern

61 Bataleur St., Phalaborwa 1390

South Africa

E AgriConnectSA@gmail.com

#### AgriConnect, opens up the opportunity to develop!

Increasing demand for food and the need to take action on climate change has lead to the development of a wide variety of techniques that help us to work "ClimateSmart" and boost producefarms at the same time.

AgriConnect brings together a variety of techniques to provide a tailor-made solution. Modular design, implementation and training are part of this. AgriConnect will act as the interface that allows the various modules to work together as a whole to create a "ClimateSmart" solution and, of course, a cost-effective operation as a result.

Examples include reduction of water demand in citrus cultivation through drip irrigation management, deployment of mobile solar generators in remote areas (no fossil fuel supply needed), disease warning and cropprotection systems. Performance is monitored and controlled online.

ClimateSmart Solutions that will lead to optimization of your production, water consumption, energy consumption and quality assurance.

Tick the appropriate box(es) to which items the produ	ct / service / technology offers solutions for:
□Soil	☐ Input (material)
□CO <sub>2</sub>	☐ Early warning systems
₩ater	☐ Geo data
✓ Solar	□Wind
☐ Others, like	
Sustainable Development Goals	
The company focusses with the product / service / tech	nology on the following SDG(s) (see for explanation
chapter on SDGs).	
Tick the appropriate themes (you can tick of course me	ore than one):
☐ No 1 No poverty	✓ No 10 Reduced inequalities
□ No 2 Zero hunger	$\square$ No 11 Sustainable cities and communities
☐ No 3 Good health and well-being	$\square$ No 12 Responsible consumption and production
☑ No 4 Quality education	☑ No 13 Climate Action
☐ No 5 Gender equality	☐ No 14 Life below water
☐ No 6 Clean water and sanitation	□ No 15 Life on land
☑ No 7 Affordable and clean energy	$\square$ No 16 Peace, justice and strong institutions
$\square$ No 8 Decent work and economic growth	☐ No 17 Partnerships for the goals
$\square$ No 9 Industry, innovation and infrastructure	
Looking for following kind of partners in South	Africa
Tick the appropriate boxes for which kind of partners the company is looking for:	
✓ Agents	□ Distributors
Others, like organisations or companies willing and able to setup or provide a pilot area.	



#### **HortiMaX**

HortiMaX is part of the Ridder family. Ridder Drive Technology , Ridder Screen Technology and HortiMaX.

Using our knowledge of horticultural production, we develop software and hardware solutions that allow you to improve the performance of your business. Plug, Play and Grow, we are there to help you're business grow. From small plastic tunnels growers to advanced glasshouse growers we do have the best fit solution for them. It is our drive to develop greenhouse growing technology that will enable you to produce local, safe, sustainable, year-round available products in your own way. Water is the source of your yields. Clean water and fertilizers are essential growth factors that are becoming increasingly scare as time goes by.

Rob Veenstra Global Accountmanager

#### HortiMaX

☐ Customers

Others like

□Agents

Honderdland 131
P.O.Box 33
2676 ZG Maasdijk
The Netherlands
P +311 536 20 300
E rveenstra@hortimax.con

•		
Tick the appropriate box(es) to which items the product / service / technology offers solutions for:		
☐ Input (material)		
☐ Early warning systems		
☐ Geo data		
□Wind		
nology on the following SDG(s) (see for explanation		
re than one):		
☐ No 10 Reduced inequalities		
$\square$ No 11 Sustainable cities and communities		
☑ No 12 Responsible consumption and production		
☑ No 13 Climate Action		
□ No 14 Life below water		
☑ No 15 Life on land		
☐ No 16 Peace, justice and strong institutions		
✓ No 17 Partnerships for the goals		
. 0		

(Joint Venture) Partners

Distributors

Tick the appropriate boxes for which kind of partners the company is looking for:

Looking for following kind of partners in South Africa



#### **Utilysys Foundation**

Flowerbulb growers, exporters, researchers and specialists have developed a firm, standard-sized (60x40x23 cm) polyethylene (recycled material) foldable crate which meets all requirements imposed on an export crate for flowerbulbs and perennials.

This crate allows optimum ventilation and is strong enough to be stacked on pallets for transportation and/or storage in climate controlled rooms. If collapsed it will provide 80% space savings, enhancing feasibility of return shipment of empty crates.

Utilysys® has already caused production of 1.5 mln plastic crates to be superfluous (the same crates are being reused during 6 years now). Utilysys® users prevent landfill and excessive energy consumption, that is required for production of new plastic crates, as well as waste of resources.

This crate is being used by 10 companies, for long distance transportation to large scale flower producers worldwide. Westerbeek Bulb Co., Dobbe Farms and Van den Bos Flowerbulbs are important companies that operate Utilysys®.

O de Mooij

Customers

□Agents

#### **Utilysys Foundation**

Weeresteinstraat 10 A 2181 GA Hillegom P.O. BOX 175 2180 AD Hillegom The Netherlands P +316 389 39 699 E utilysys@gmail.com www.utilysys.eu

Tick the appropriate box(es) to which items the pro	oduct / service / technology offers solutions for:
✓ Soil	✓ Input (material)
☑CO2	☐ Early warning systems
□Water	☐ Geo data
□Solar	□Wind
☑Others, like reduce waste energy and resourses.	
Sustainable Development Goals	
The company focusses with the product / service / t	echnology on the following SDG(s) (see for explanation
chapter on SDGs).	
Tick the appropriate themes (you can tick of course	more than one):
☐ No 1 No poverty	☐ No 10 Reduced inequalities
□ No 2 Zero hunger	$\square$ No 11 Sustainable cities and communities
☐ No 3 Good health and well-being	☑ No 12 Responsible consumption and production
☐ No 4 Quality education	☑ No 13 Climate Action
☐ No 5 Gender equality	☐ No 14 Life below water
$\square$ No 6 Clean water and sanitation	☐ No 15 Life on land
☐ No 7 Affordable and clean energy	$\square$ No 16 Peace, justice and strong institutions
$\square$ No 8 Decent work and economic growth	$\square$ No 17 Partnerships for the goals
☑No 9 Industry, innovation and infrastructure	
Looking for following kind of partners in Sou	
Tick the appropriate boxes for which kind of partner	ers the company is looking for:

☐ (Joint Venture) Partners

☐ Distributors

Others, like growers producing or using good quality starting material like flowerbulbs and perennials.



#### Bosman Van Zaal

For nearly a century, Bosman van Zaal has been designing and building greenhouses for global growers from our headquarters in the Netherlands. Over the years we have acquired the vast network, knowledge and know-how to solve the agricultural and horticultural industry's most complex challenges. Bosman Van Zaal's portfolio includes glasshouses, foil houses, heating and cooling installations, irrigation and electrical installations and internal transport systems. All constructions and installations are in-house designed, engineered and manufactured and customized as per customer and climate requirements.

Robert van Donk International Business Development Manager

#### Bosman Van Zaal

Mr. Jac. Takkade 3 1432 CA Aalsmeer The Netherlands P +312 973 44 344

✓ Customers

Others like

□Agents

bosmanvanzaal.com www.bosmanvanzaal.com

✓ Soil	☑ Input (material)
☑CO2	☐ Early warning systems
☑Water	☐ Geo data
✓ Solar	$\square$ Wind
☑Others, like food safety	
Sustainable Development Goals	
The company focusses with the product / service	e / technology on the following SDG(s) (see for explanation
chapter on SDGs).	
Tick the appropriate themes (you can tick of cou	rse more than one):
☐ No 1 No poverty	☐ No 10 Reduced inequalities
□ No 2 Zero hunger	$\square$ No 11 Sustainable cities and communities
☐ No 3 Good health and well-being	☑ No 12 Responsible consumption and production
☐ No 4 Quality education	☐ No 13 Climate Action
☐ No 5 Gender equality	☐ No 14 Life below water
☐ No 6 Clean water and sanitation	□ No 15 Life on land
☐ No 7 Affordable and clean energy	☐ No 16 Peace, justice and strong institutions
$\square$ No 8 Decent work and economic growth	☑ No 17 Partnerships for the goals
☑ No 9 Industry, innovation and infrastructure	· · · · ·

☐ (Joint Venture) Partners

☐ Distributors

Tick the appropriate boxes for which kind of partners the company is looking for:

Looking for following kind of partners in South Africa

Product / service / technology offers solutions in the following fields

Tick the appropriate box(es) to which items the product / service / technology offers solutions for:



#### **Verbos Business Development**

Verbos has a global track record in sustainable agriculture and offers a variety of services by using the knowledge and experience of the highest quality experts in both the public and private sector. The staff at Verbos have years of experience in undertaking challenging and comprehensive projects in mostly international settings. We also have the resources and commitment to provide services in innovative sectors, on a technological and conceptual level, using an entrepreneurial mind-set. We will continuously strive to provide your business with the best support. After all: your success is our success. Verbos will guide you throughout the process while we also strive economic viability with our realistic, practical and creative advice. Verbos would gladly be your

co-pilot in developing your business or idea further through business planning, research, financial engineering, consortium building. Don't hesitate to contact us!

Product / service / technology offers solutions in the following fields

Tick the appropriate box(es) to which items the product / service / technology offers solutions for:



Aart van den Bos MBA

✓ Customers✓ Agents

Others like

Verbos Business Development
Jan van der Laarweg 20
2678 LH De Lier
The Netherlands
P +316 517 88 924
E ajb@verbos.nl

□Soil	☐ Input (material)			
□CO <sub>2</sub>	☐ Early warning systems			
□Water	☐ Geo data			
□Solar	□Wind			
☑ Others, like capacity development & applied research				
Sustainable Development Goals				
The company focusses with the product / service / tech	nology on the following SDG(s) (see for explanation			
chapter on SDGs).				
Tick the appropriate themes (you can tick of course mo	ore than one):			
□ No 1 No poverty	☐ No 10 Reduced inequalities			
□ No 2 Zero hunger	$\square$ No 11 Sustainable cities and communities			
☐ No 3 Good health and well-being	☑ No 12 Responsible consumption and production			
☐ No 4 Quality education	□ No 13 Climate Action			
☐ No 5 Gender equality	□ No 14 Life below water			
☐ No 6 Clean water and sanitation	□ No 15 Life on land			
□ No 7 Affordable and clean energy	☐ No 16 Peace, justice and strong institutions			
☑ No 8 Decent work and economic growth	☑ No 17 Partnerships for the goals			
☐ No 9 Industry, innovation and infrastructure				
Looking for following kind of partners in South	Africa			

☐ (Joint Venture) Partners

☐ Distributors

Tick the appropriate boxes for which kind of partners the company is looking for:



#### Aqua-Terra Nova

Climate proof water availability: a business case

In a large part of the world year-round sufficient fresh water is not within reach. One of our products, the Water Resource Survey, creates an overview of all available water sources for new developments. This overview is the input for a water balance of the area. The water balance is used to set up sustainable water management for a greenhouse (Aqua-Soil Approach). The Aqua-Soil Approach is based on reuse of fresh water and organic matter for the benefit of sustainable agri-/horticulture. Water will be treated (we use cheap, robust systems that are easily installed), stored and used for agri-/horticulture. This approach is interesting for area's/projects without water treatments or/and water scarcity. Unique about this approach is that it is not only looking at one point of the water cycle but looking to the total water cycle and combining this with our knowledge of greenhouses, this results in a business case.

Aad Wubben

Aqua-Terra Nova Zuidweg 79 2671 MP Naaldwijk The Netherlands

Others like

E a.wubben@aquaterranova.i

Soil	□ Input (material)
□CO <sub>2</sub>	☐ Early warning systems
☑Water	☐ Geo data
□Solar	□Wind
☐ Others, like	
Sustainable Development Goals	
The company focusses with the product / service / tech	nology on the following SDG(s) (see for explanation
chapter on SDGs).	
Tick the appropriate themes (you can tick of course mo	ore than one):
☐ No 1 No poverty	☐ No 10 Reduced inequalities
☑ No 2 Zero hunger	☑No 11 Sustainable cities and communities
☐ No 3 Good health and well-being	☑ No 12 Responsible consumption and production
☐ No 4 Quality education	☑ No 13 Climate Action
☐ No 5 Gender equality	☐ No 14 Life below water
☑ No 6 Clean water and sanitation	□ No 15 Life on land
☐ No 7 Affordable and clean energy	☐ No 16 Peace, justice and strong institutions
☑ No 8 Decent work and economic growth	☐ No 17 Partnerships for the goals
☐ No 9 Industry, innovation and infrastructure	
Looking for following kind of partners in South	Africa
Tick the appropriate boxes for which kind of partners t	he company is looking for:
	☑ (Joint Venture) Partners
□Agents	□ Distributors

Product / service / technology offers solutions in the following fields

Tick the appropriate box(es) to which items the product / service / technology offers solutions for



Aqua Soil Group BV
P.O. Box 6
2670 AA Naaldwijk
The Netherlands
P +316 245 29 457

✓ Customers

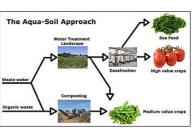
☐ Agents

Others like

#### Aqua Soil Group BV

The Aqua-Soil Group has been set up as a social enterprise to link challenges in agriculture (nutrients, soil fertility), the water sector (shortage), sanitation (waste water), food security (lack of natural resources, growing population). The objective of regaining the values

from waste streams through an innovative concept that applies an affordable, efficient and applicable methodology. This approach ensures the purification of wastewater up to a quality standard that is both safe and



nutritious for the irrigation of different types of crops through the separation and composting of the solid parts together with organic waste streams.

Processing companies and municipalities have this kind of problems which can be solved in a commercially viable business case, where costs are turned into investments including social and ecological returns.

□Soil	🔽 Input (material)
□CO <sub>2</sub>	☐ Early warning systems
<b>☑</b> Water	☐ Geo data
□Solar	□Wind
☐ Others, like	
Sustainable Development Goals	
The company focusses with the product / service / t	technology on the following SDG(s) (see for explanation
chapter on SDGs).	
Tick the appropriate themes (you can tick of course	e more than one):
☐ No 1 No poverty	☐ No 10 Reduced inequalities
□ No 2 Zero hunger	☐ No 11 Sustainable cities and communities
☐ No 3 Good health and well-being	☑ No 12 Responsible consumption and production
☐ No 4 Quality education	☐ No 13 Climate Action
☐ No 5 Gender equality	☐ No 14 Life below water
☐ No 6 Clean water and sanitation	☐ No 15 Life on land
☐ No 7 Affordable and clean energy	$\square$ No 16 Peace, justice and strong institutions
☑ No 8 Decent work and economic growth	✓ No 17 Partnerships for the goals
☐ No 9 Industry, innovation and infrastructure	
Looking for following kind of partners in Sou	ıth Africa

☐ (Joint Venture) Partners

☐ Distributors

Tick the appropriate boxes for which kind of partners the company is looking for:

Product / service / technology offers solutions in the following fields

Tick the appropriate box(es) to which items the product / service / technology offers solutions for:



Tobias Bandel

#### Soil & More International

Transportweg 7 2742 RH Waddinxveer The Netherlands

E Tobias.bandel@ soilandmore.com

✓ Soil

#### Soil & More International

In a world where natural resources are steadily shrinking, a more efficient use of the remaining resources is crucial for the survival of each business. Therefore, becoming more sustainable is far more than just a unique selling point. It should be incorporated into a company's core strategy and used as a management rather than a marketing tool, as it is likely to help to lower the risk and increase the profit of your business. Finding the path that is right for you is essential to ensure your business' long-term productivity. We understand the complexity of your enterprise along the supply chain as well as the many layers that are key to a sustainable performance. Besides our core business and passion for soil fertility, compost and best practises in farming we are incessantly working on new ideas on how to address, define and

identify key drivers for sustainable business development as well as to secure the production of healthy, safe, high quality products along the supply chain. We are committed to continue being a leader for sustainability services.

✓ Input (material)

☑ No 13 Climate Action

☐ No 15 Life on land

☐ No 14 Life below water

☐ No 16 Peace, justice and strong institutions

☐ No 17 Partnerships for the goals



☑CO2	$\square$ Early warning systems
✓ Water	☐ Geo data
□Solar	□Wind
$ec{oldsymbol{arphi}}$ Others, like capacity development & applie	d research
Sustainable Development Goals	
The company focusses with the product / serv	ice / technology on the following SDG(s) (see for explanation
chapter on SDGs).	
Tick the appropriate themes (you can tick of co	ourse more than one):
☐ No 1 No poverty	☐ No 10 Reduced inequalities
□ No 2 Zero hunger	$\square$ No 11 Sustainable cities and communities
☑ No 3 Good health and well-being	☑ No 12 Responsible consumption and production

# Looking for following kind of partners in South Africa

Tick the appropriate boxes for which kind of partners the company is looking for:  $\square$  Customers  $\square$  (Joint Venture) Partners

Product / service / technology offers solutions in the following fields

Tick the appropriate box(es) to which items the product / service / technology offers solutions for:

□ Agents □ Distributors

Others like

☐ No 4 Quality education☐ No 5 Gender equality

☐ No 6 Clean water and sanitation

☐ No 7 Affordable and clean energy

✓ No 8 Decent work and economic growth

☐ No 9 Industry, innovation and infrastructure



#### Hoogendoorn Growth Management BV

Worldwide innovator in horticultural automation Hoogendoorn is for more than 50 years known as the most innovative supplier of process automation systems in the horticultural industry. With the Hoogendoorn products, healthy and high-quality plants can grow in any climate condition — worldwide, from dry to humid climates. With sustainable automation solutions and complementary training Hoogendoorn strives to empower growers to achieve a higher vegetable production that creates competitive advantage and economic growth.

A key target to comply with the growing need for sustainable horticultural products is to increase yields; our products in process automation are indispensable to accomplish this:

The next generation iSii process computer monitors and controls all climate irrigation and energy equipment in all types of greenhouses. The user-friendly iSii compact monitors and controls basic irrigation in greenhouses and open fields and manages climate.

Work-IT combines real-time information about e.g. staff performance,

planning, payroll administration, quality and stock.

See attached accompanying visual (woman behind computer)

Input (material)

✓ Farly warning systems

(loint Venture) Partners

Distributors

Martin Helmich
Director Sales & Marketing

Hoogendoorn Growth Management BV Westlandseweg 190 3131 HX Vlaardingen The Netherlands

✓ Soil

VICO<sub>2</sub>

Others like

Product / service / technology offers solutions in the following field	Pi	roduct	service	technolo /	gy offers sol	utions in th	ne followin	g field
--	----	--------	---------	------------	---------------	--------------	-------------	---------

Tick the appropriate box(es) to which items the product / service / technology offers solutions for:

✓Water	☑ Geo data
✓ Solar	✓ Wind
☐ Others, like	
Sustainable Development Goals	
The company focusses with the product / service / to	echnology on the following SDG(s) (see for explanation
chapter on SDGs).	
Tick the appropriate themes (you can tick of course	more than one):
□ No 1 No poverty	☐ No 10 Reduced inequalities
□ No 2 Zero hunger	$\square$ No 11 Sustainable cities and communities
☐ No 3 Good health and well-being	$\square$ No 12 Responsible consumption and production
☐ No 4 Quality education	□ No 13 Climate Action
□ No 5 Gender equality	☐ No 14 Life below water
☑ No 6 Clean water and sanitation	□ No 15 Life on land
☑ No 7 Affordable and clean energy	$\square$ No 16 Peace, justice and strong institutions
☐ No 8 Decent work and economic growth	☐ No 17 Partnerships for the goals
☑No 9 Industry, innovation and infrastructure	

Tick the appropriate boxes for which kind of partners the company is looking for:

Looking for following kind of partners in South Africa



#### De Klik BiomassaDHZ

De Klik Biomassa DHZ offers services for the transition to a circular economy. The platform www.Biomassa DHZ.nl brings together demand and supply of organic residues that serve as renewable, raw materials for a variety of purposes. DHZ means DIY. The direct contact saves brokering costs and makes the renewable resources traceable. 'Biomass' is used in the broadest sense of the word; for example woodchips from agricultural landscaping are demanded by sustainable energy producers, fibers of plants are used by producers of building and packaging materials, but also surplus from local farmers that end up at restaurant chefs for further food preparation to reduce food waste in the chain. For governments it is an efficient way to unlock data about local biomass potential, including seasonal variations.

The platform works on subscription and customized packages with different services are offered. It is now available in NL, but can be customized for other countries

# Martine Groenewegen

#### De Klik BiomassaDHZ

Klokkegat 49 6741 EM Lunteren The Netherlands P +316 221 03 183 E mg@de-klik.com

lick the appropriate box(es) to which items the pr	oduct / service / technology offers solutions for:		
Soil	✓Input (material)		
☑CO2	☐ Early warning systems		
□Water	☐ Geo data		
□Solar	□Wind		
☑ Others, like waste, food waste, energy			
Sustainable Development Goals			
The company focusses with the product / service / technology on the following SDG(s) (see for explanation			
chapter on SDGs).			
Tick the appropriate themes (you can tick of cours	e more than one):		
☐ No 1 No poverty	☐ No 10 Reduced inequalities		
□ No 2 Zero hunger	✓ No 11 Sustainable cities and communities		
☐ No 3 Good health and well-being	☑ No 12 Responsible consumption and production		
☐ No 4 Quality education	☐ No 13 Climate Action		
☐ No 5 Gender equality	☐ No 14 Life below water		
☐ No 6 Clean water and sanitation	☐ No 15 Life on land		
☑ No 7 Affordable and clean energy	$\square$ No 16 Peace, justice and strong institutions		
No 8 Decent work and economic growth	☐ No 17 Partnerships for the goals		

(loint Venture) Partners

☐ Distributors

Others like

□ No 9 Industry, innovation and infrastructure

Looking for following kind of partners in South Africa

Tick the appropriate boxes for which kind of partners the company is looking for:



#### **Koppert Biological Systems**

Innovative partner for growers who value sustainability and productivity

Koppert Biological Systems produces sustainable cultivation solutions for food crops and ornamental plants. Together with growers and in partnership with nature, we work to make agriculture and horticulture healthier, safer, more productive and resilient. We achieve this by using natural enemies to combat pest infestations, bumblebees for natural pollination, and biostimulants that support and strengthen the crops both above and underground. Restoring and protecting vital ecosystems in a natural way is the basis for healthy crops and a balanced environment.

Add our quality know-how and consultancy services to this and you will understand why an increasing number of growers regards us as a partner with whom they can realize their ambitions



Frank Enthoven

Koppert Biological Systems Veilingweg 14 2651 BE Berkel & Rodenrijs The Netherlands P +271 002 02 427

✓ Customers✓ Agents

Others like

✓ Soil	☐ Input (material)
□CO <sub>2</sub>	☐ Early warning systems
□Water	☐ Geo data
□Solar	□Wind
${\color{red} {\!$	1
Sustainable Development Goals	
The company focusses with the product / service / tech	nology on the following SDG(s) (see for explanation
chapter on SDGs).	
Tick the appropriate themes (you can tick of course mo	ore than one):
☐ No 1 No poverty	☐ No 10 Reduced inequalities
□ No 2 Zero hunger	$\square$ No 11 Sustainable cities and communities
☑ No 3 Good health and well-being	$\square$ No 12 Responsible consumption and production
☐ No 4 Quality education	☑ No 13 Climate Action
☐ No 5 Gender equality	□ No 14 Life below water
$\square$ No 6 Clean water and sanitation	☑ No 15 Life on land
☐ No 7 Affordable and clean energy	$\square$ No 16 Peace, justice and strong institutions
☐ No 8 Decent work and economic growth	$\square$ No 17 Partnerships for the goals
$\square$ No 9 Industry, innovation and infrastructure	
Looking for following kind of partners in South	Africa

☐ (Joint Venture) Partners

☐ Distributors

Tick the appropriate boxes for which kind of partners the company is looking for:

Product / service / technology offers solutions in the following fields

Tick the appropriate box(es) to which items the product / service / technology offers solutions for



#### **Ludvig Svensson**

We are the fourth generation of the Ludvig Svensson family – a Swedish company led by siblings Anne and Anders Ludvigson. The passion for textiles that defines our organisation is one that embraces both design and function.

Our business concept is to provide textile climate and environmental solutions, designed with insight for the contract and horticultural markets, under the brand Syensson

Philip Immerzeel
Brand ambassador

Ludvig Svensson
Marconiweg 2
3225 LV Hellevoetsluis
The Netherlands
P +231 873 92 642

✓ Customers

☐ Agents

Others, like

Tick the appropriate box(es) to which items the prod	luct / service / technology offers solutions for:		
□Soil	☐ Input (material)		
□CO <sub>2</sub>	☐ Early warning systems		
□Water	☐ Geo data		
□ Solar	□Wind		
☑ Others, like			
Sustainable Development Goals			
The company focusses with the product / service / te	chnology on the following SDG(s) (see for explanation		
chapter on SDGs).			
Tick the appropriate themes (you can tick of course r	more than one):		
□ No 1 No poverty	☐ No 10 Reduced inequalities		
□ No 2 Zero hunger	$\square$ No 11 Sustainable cities and communities		
☑ No 3 Good health and well-being	$\square$ No 12 Responsible consumption and production		
□ No 4 Quality education	☐ No 13 Climate Action		
☑ No 5 Gender equality	☐ No 14 Life below water		
🗹 No 6 Clean water and sanitation	□ No 15 Life on land		
🗹 No 7 Affordable and clean energy	$\square$ No 16 Peace, justice and strong institutions		
$\square$ No 8 Decent work and economic growth	$\square$ No 17 Partnerships for the goals		
□ No 9 Industry, innovation and infrastructure			
Looking for following kind of partners in Sout	h Africa		
Tick the appropriate boxes for which kind of partner	s the company is looking for		

(Joint Venture) Partners

☐ Distributors



Majella van der Arend International Project Manager Africa

#### Delphy

✓ Soil

MCO<sub>2</sub>

□Agents

Others like

Postnet Suite 133
Private Bag X5091, Brits, 0250
South Africa
Agro Businesspark 65
6708 PV Wageningen
The Netherlands
P +278 233 53 206
E m.vanderarend@delphy.n

#### Delphy Worldwide expertise for Food & Flowers

The core of Delphy is the development of knowledge and skills about the cultivation of crops and the optimization of the cultivation conditions and the implementation of this knowledge through consultancy and training or by developing and executing turnkey projects. We are active over the whole world with about 250 colleagues. The independent position of Delphy ensures independent and current knowledge on cultivation and management.

Delphy is globally contributing to

- Health, food safety, sustainability and the well-being of people in this world
- Optimization in production of crops through knowledge development and implementation
- Achieving your goals by sharing knowledge and expertise through our consultants and researchers.

Our customers are in all areas of cultivation:

✓ Input (material)

Farly warning systems

We advise growers, farmers and breeders and implement (customized) trainings. We develop turnkey projects and execute them. Our clients are all over the horticultural field from students to emerging farmers and large commercial growers and investors in the food and flower industry.

#### Product / service / technology offers solutions in the following fields

Tick the appropriate box(es) to which items the product / service / technology offers solutions for:

✓Water	☑ Geo data		
✓Solar	<b>☑</b> Wind		
$\checkmark$ Others: we advise and connect on all cultivation as	pects.		
Sustainable Development Goals			
The company focusses with the product / service / tecl	nnology on the following SDG(s) (see for explanation		
chapter on SDGs).			
Tick the appropriate themes (you can tick of course m	ore than one):		
□ No 1 No poverty	☐ No 10 Reduced inequalities		
☑ No 2 Zero hunger	$\square$ No 11 Sustainable cities and communities		
☑ No 3 Good health and well-being	$\square$ No 12 Responsible consumption and production		
☐ No 4 Quality education	☐ No 13 Climate Action		
☐ No 5 Gender equality	□ No 14 Life below water		
☐ No 6 Clean water and sanitation	□ No 15 Life on land		
☐ No 7 Affordable and clean energy	☐ No 16 Peace, justice and strong institutions		
☑ No 8 Decent work and economic growth	☐ No 17 Partnerships for the goals		
☐ No 9 Industry, innovation and infrastructure			
Looking for following kind of partners in South	Africa		
Tick the appropriate boxes for which kind of partners	the company is looking for:		
✓ Customers	✓ (Joint Venture) Partners		

☐ Distributors



Bart A.J. de Jonge CEO

Si Technologies International B.V. Hogeweg 57 2201 AN Noordwijk The Netherlands P +316 557 38 927 E bart@sitecin.com www.sitecin.com

#### Si Technologies International B.V.

Si Technologies International is the licensee of a patented technology to produce and market stabilised silicic acid, the only silicon component that can be taken up by a plant. We call our product: NewSil.

Silicon has been widely acknowledged to have a positive effect on plants' growth as it helps to build up the plants' own defence mechanisms against biotic and abiotic stress, e.g. drought, pest or infestations. Science around silicon in agriculture is relatively new but research from all over the world shows the positive effect of silicon on a plant's "well being" and therewith, its ouput.

Impact and results are highest with smallholder farmers in the Asian and African market as they are heavily exposed to stress in their daily ag operations. NewSil helps crops to survive dry spells longer and builds up a mechanical barrier against pests and infestations. This results in healthier crops and less crop loss leading to yield increases of 20-30%.

lick the appropriate box(es) to which items the produ	ict / service / technology offers solutions for:		
□Soil	☐ Input (material)		
☑CO <sub>2</sub>	☐ Early warning systems		
☑Water	☐ Geo data		
□Solar	□Wind		
☐ Others, like			
Sustainable Development Goals			
The company focusses with the product / service / tecl	nnology on the following SDG(s) (see for explanation		
chapter on SDGs).			
Tick the appropriate themes (you can tick of course m	ore than one):		
✓ No 1 No poverty	☐ No 10 Reduced inequalities		
☑ No 2 Zero hunger	☐ No 11 Sustainable cities and communities		
☐ No 3 Good health and well-being	☑ No 12 Responsible consumption and production		
☐ No 4 Quality education	□ No 13 Climate Action		
☐ No 5 Gender equality	□ No 14 Life below water		
☐ No 6 Clean water and sanitation	□ No 15 Life on land		
☐ No 7 Affordable and clean energy	☐ No 16 Peace, justice and strong institutions		
☐ No 8 Decent work and economic growth			
☐ No 9 Industry, innovation and infrastructure			
Looking for following kind of partners in South	Africa		
Tick the appropriate boxes for which kind of partners the company is looking for:			
✓ Customers	☐ (Joint Venture) Partners		
□Agents	✓ Distributors		
☑ Others, like Governments / NGO's providing seeds /	fertilizers / inputs to smallholder farmers.		



#### PlantLab Groep BV

PlantLab provides turnkey solutions for indoor vertical farming by making use of its own developed growing recepis, production methods, technology and software. PlantLab develops, builds and operates indoor vertical farms in partnerships with leading companies in the field of plant-breeding, young plants, flavours & fragrances, food ingredients, cosmetics and in particular production of fresh produce with specific flavour and nutrition profiles. PlantLab has a worldwide patent on there indoor farming technology called Plant Production Units (PPU's).

## PlantLab Groep BV



Tick the appropriate box(es) to which items the product / service / technology offers solutions for:		
□Soil	☐ Input (material)	
□CO <sub>2</sub>	☐ Early warning systems	
□Water	☐ Geo data	
□ Solar	□Wind	
☑ Others, like Total turnkey solutions for indoor farming.		
Sustainable Development Goals		
The company focusses with the product / service / tech	nology on the following SDC(s) (see for explanation	

chapter on SDGs).

Tick the appropriate themes (you can tick of course more than one):

Product / service / technology offers solutions in the following fields

- ☐ No 1 No poverty ☐ No 2 Zero hunger ☑ No 3 Good health and well-being ☐ No 4 Quality education
- ☐ No 5 Gender equality No 6 Clean water and sanitation ☐ No 7 Affordable and clean energy
- ☐ No 8 Decent work and economic growth No 9 Industry, innovation and infrastructure

- ☐ No 10 Reduced inequalities ☑ No 11 Sustainable cities and communities
- ☑ No 12 Responsible consumption and production
- ☐ No 13 Climate Action ☐ No 14 Life below water
- ☐ No 15 Life on land
- ☐ No 16 Peace, justice and strong institutions
- ✓ No 17 Partnerships for the goals

#### Looking for following kind of partners in South Africa

Tick the appropriate boxes for which kind of partners the company is looking for:

(Joint Venture) Partners for:

- Urban Farm production (fresh herbs, leavy crops, etc.)
- Young Plant Production (different crops)



#### Wageningen Centre for Development Innovation

Knowledge in Action

Wageningen Centre for Development Innovation (CDI) works on processes of innovation and change through facilitating innovation, brokering knowledge and supporting capacity development

The Sustainable Markets Program

The Sustainable Markets programme is one of the six expertise areas of CDI and supports market-led initiatives in agriculture so they become real drivers for pro-poor rural economic development.

The market for locally consumed food commodities represents the largest growth opportunity for rural farmers. And in most developing countries it represents the bulk of total agricultural market value.

We focus on innovative solutions

Facilitating the rapid expansion of food staple markets is therefore critical, as is our focus on linking the livelihoods and rural economic development perspective with that of international market access. After a critical and context-specific analysis of a planned intervention strategy, we deploy our economic knowledge and expertise, and work from there towards innovative solutions.

#### Ian Heldei

Market Economist & Value Chair Development Expert

Wageningen Centre for Development Innovation

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P +316 232 03 720

www.wiir.nl

☐ Customers ☐ Agents

agrifood value chains.

Product / service / technology offers solutions in the following fields		
Tick the appropriate box(es) to which items the product / service / technology offers solutions for:		
□Soil	☐ Input (material)	
□CO2	☐ Early warning systems	
□Water	☐ Geo data	
□Solar	□Wind	
☑Others, like capacity development & applied resea	rch.	
Sustainable Development Goals		
The company focusses with the product / service / technology on the following SDG(s) (see for explanation		
chapter on SDGs).		
Tick the appropriate themes (you can tick of course m	nore than one):	
✓ No 1 No poverty	☐ No 10 Reduced inequalities	
☑ No 2 Zero hunger	$\square$ No 11 Sustainable cities and communities	
☐ No 3 Good health and well-being	$\square$ No 12 Responsible consumption and production	
☐ No 4 Quality education	☐ No 13 Climate Action	
☐ No 5 Gender equality	☐ No 14 Life below water	
☐ No 6 Clean water and sanitation	☐ No 15 Life on land	
☐ No 7 Affordable and clean energy	$\square$ No 16 Peace, justice and strong institutions	
$\square$ No 8 Decent work and economic growth	☐ No 17 Partnerships for the goals	
$\square$ No 9 Industry, innovation and infrastructure		
Looking for following kind of partners in Soutl	1 Africa	
Tick the appropriate boxes for which kind of partners the company is looking for:		

☐ (Joint Venture) Partners

☐ Distributors

☑ Others, like training & (applied) research institutes in the field of climate smart adaptation in local fresh

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#### Land Life Company

The Cocoon planting technology provides a water-efficient and scalable solution to plant large numbers of trees in degraded soils. Various applications of the Cocoon include nature restoration (e.g. after invasive alien plant clearing & mining rehabilitation), landscaping and agricultural productive trees.

#### **Land Life Company**

The Cocoon is designed to incubate a seedling through its critical first year. By providing water and shelter while stimulating the seedling to produce a healthy and deep root structure. This way, the Cocoon produces independent, strong trees which are not reliant on external irrigation and can survive harsh conditions. The Cocoon has been used to plant trees and shrubs in Mexico, Spain, United Arab Emirates, Kenya and South Africa to aid ecological restoration and water-efficient farming.

In South Africa, Cocoons are largely in demand by wine producers in the Western Cape, such as Spier and Merwida Wine Estates.

Tick the appropriate box(es) to which items the pro	duct / service / technology offers solutions for:		
□Soil	$\square$ Input (material)		
□CO <sub>2</sub>	☐ Early warning systems		
□Water	☐ Geo data		
□Solar	□Wind		
☑Others, like water-efficient tree planting.			
Sustainable Development Goals			
The company focusses with the product / service / t	echnology on the following SDG(s) (see for explanation		
chapter on SDGs).			
Tick the appropriate themes (you can tick of course	more than one):		
☐ No 1 No poverty	☐ No 10 Reduced inequalities		
□ No 2 Zero hunger	✓ No 11 Sustainable cities and communities		
☑ No 3 Good health and well-being	$\square$ No 12 Responsible consumption and production		
☐ No 4 Quality education	☑ No 13 Climate Action		
☐ No 5 Gender equality	☐ No 14 Life below water		
☑ No 6 Clean water and sanitation	☑ No 15 Life on land		
☐ No 7 Affordable and clean energy	$\square$ No 16 Peace, justice and strong institutions		
$\square$ No 8 Decent work and economic growth	☐ No 17 Partnerships for the goals		
$\square$ No 9 Industry, innovation and infrastructure			
Looking for following kind of partners in Sou	th Africa		
Tick the appropriate boxes for which kind of partners the company is looking for:			
✓ Customers	✓ (Joint Venture) Partners		
☐Agents	☐ Distributors		
Others like			



#### Westcape Biotech (Pty) Ltd

The company focusses on breeding support to improve the quality of food and feed crops. Apart from standard multiplication in tissue culture the company's main focus is the more specialised tissue culture techniques like haploid and doubled haploid production, polyploidisation, embryo rescue, pathogen elimination, protoplast generation and regeneration of crops. The company also has its own molecular laboratory suitable for pathogen detection, DNA analyses, polyploidy measurements as well as a range of other biotechnological procedures.

The end users of our products are seed companies, breeding

companies, plant growers/producers and nurseries.

The most important client of the company is a Dutch based vegetable seed company (ENZA Zaden B.V.).

Product / service / technology offers solutions in the following fields



Reinette Champanis

Westcape Biotech (Pty) Ltd R304, Koelenhof Stellenbosch, 7605 South Africa P +272 186 52 531 E reinette@

Tick the appropriate box(es) to which items the produc	ct / service / technology offers solutions for:		
Soil	✓ Input (material)		
□CO <sub>2</sub>	☐ Early warning systems		
□Water	☐ Geo data		
□Solar	□Wind		
☐ Others, like			
Sustainable Development Goals			
The company focusses with the product / service / technology on the following SDG(s) (see for explanation			
chapter on SDGs).			
Tick the appropriate themes (you can tick of course more than one):			
☐ No 1 No poverty	☐ No 10 Reduced inequalities		
□ No 2 Zero hunger	$\square$ No 11 Sustainable cities and communities		
☑ No 3 Good health and well-being	☐ No 12 Responsible consumption and production		
☐ No 4 Quality education	☑ No 13 Climate Action		
☐ No 5 Gender equality	☐ No 14 Life below water		
☐ No 6 Clean water and sanitation	□ No 15 Life on land		
☐ No 7 Affordable and clean energy	☐ No 16 Peace, justice and strong institutions		
$\square$ No 8 Decent work and economic growth	☐ No 17 Partnerships for the goals		

☐ (Joint Venture) Partners

☐ Distributors

Tick the appropriate boxes for which kind of partners the company is looking for:

□ No 9 Industry, innovation and infrastructure

✓ Customers

☐ Agents

Others like

Looking for following kind of partners in South Africa



#### Demokwekerij Westland

Unique horticulture innovation platform. Demokwekerij acts as connecting hub for business, education and research. We initiate, design and moderate horti knowledge transfer projects, establish demonstration and training centres and educate future growers, horti business managers and researchers. We are proud to provide our services to Agrigarden (China), Nature's Miracle (India), Universidad Jorge Tadeo Lozano (Colombia) and Fresh Studio (Vietnam).

#### Frank Hollaai

Manager international business / knowledge ransfer

#### Demokwekerij Westland

Zwethlaan 52 2675 LB Honselersdijk The Netherlands P +317 438 56 00 E info@demokwekeri



(Joint Venture) Partners

Distributors

#### Tick the appropriate box(es) to which items the product / service / technology offers solutions for: ☐ Input (material) □ Soil ☐ Early warning systems ☐ Geo data □Water □ Solar □Wind Others, like Knowledge transfer, training, exhibition, matchmaking, demonstration of technology, Business modelling for centres of excellence and innovation projects. **Sustainable Development Goals** The company focusses with the product / service / technology on the following SDG(s) (see for explanation chapter on SDGs). Tick the appropriate themes (you can tick of course more than one): ☐ No 1 No poverty ☐ No 10 Reduced inequalities ☐ No 2 Zero hunger ☐ No 11 Sustainable cities and communities ☑ No 3 Good health and well-being ☑ No 12 Responsible consumption and production ☐ No 13 Climate Action ☐ No 4 Quality education ☐ No 5 Gender equality ☐ No 14 Life below water No 6 Clean water and sanitation ☐ No 15 Life on land ☐ No 7 Affordable and clean energy ☐ No 16 Peace, justice and strong institutions ☐ No 17 Partnerships for the goals No 8 Decent work and economic growth

☑ Others, like universities, growers associations, retail organizations and breeding companies.

Tick the appropriate boxes for which kind of partners the company is looking for:

□ No 9 Industry, innovation and infrastructure

☐ Customers ☐ Agents

Looking for following kind of partners in South Africa

Notes		

#### **Contact addresses**

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Pretoria

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E-mail : pre-lnv@minbuza.nl

Site : www.netherlandsworldwide.nl/countries/south-africa

#### Consulate General of the Kingdom of the Netherlands

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Office : +272 142 15 660 E-mail : kaa@minbuza.nl

Site : www.netherlandsworldwide.nl/countries/south-africa

#### **Verbos Business Development**

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### Colophon

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