9 tips on how to go digital in the natural ingredients for health products sector

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Digitalisation offers opportunities for improvement in almost every aspect of operational processes, including sales, sourcing, logistics, finance, quality control, processing, marketing and supply chain management. Successful implementation of digitalisation in each of these areas can bring significant benefits to natural ingredient SMEs. The first step towards achieving this is to learn about the latest digital trends and understand their potential applications in your business operations. Going digital will help you increase your competitiveness.

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1. Understand what digitalisation can do for your business

Players in the natural ingredients sector are increasingly managing production and business processes using digital tools. These tools help save time, have the potential to increase productivity and quality and can make SMEs more competitive. This is why you should invest in them to secure the future of your business. If you do not, your business will likely become less competitive.

There are many digitalisation opportunities for producers, aggregators and exporters. For instance, producers can implement digital tools to improve their farming practices and become more resilient to weather and climate change. This results in better yields, higher-quality products and lower operational costs. On the other hand, aggregators and exporters can implement digital tools to monitor operational processes, reach new customers and streamline information management and finances. Digital tools can also make data sharing with clients easier.

Figure 1: Introduction to digitalisation in agriculture

Source: BMZ Digital Global Network, 2023

There are a wide range of digital tools on the market, each with different applications and functionality. There are a lot of high-tech technologies in agriculture, and more and more technologies can be applied on a small scale, requiring small investments. Learning about ongoing developments is a good idea so you know what is out there and what could be helpful for you.

This is why it is very important you identify your needs first. Then you can look for the tool that suits your needs best before you invest in it. This is key because integrating a digital tool can require a lot of investment and capacity. Integrating digital tools without understanding their potential functionality can result in losing resources without achieving the necessary objectives.

Examples of digital solutions used across the agri-business value chain:

- Communication, such as email, video calling and CRM software
- Business management software, like digital bookkeeping and documentation
- Marketing and networking, like social media and websites
- Sales and e-commerce, by using platforms like Alibaba and eBay
- Traceability, through the use of supply chain visibility platforms, such as Koltitrace
- Quality control through the use of sensors and drones
- Automation, such as automated machinery
- Finance, by using online banking services, such as Agri-Wallet
- Product development, such as AI assisted product development

Tips:

> CStay up to date with the latest digital developments in agri-business to stay competitive. There are many ongoing developments in digitalisation in the agri-business. Search for updates online that discuss innovations in agriculture, such as New Technologies in Agriculture and Digital Innovation in Agri & Food.

Fill out the USAID planning tool to find out whether digital technology may be helpful for you.

Read this article on Food Ingredients Global Insights to learn how digitalisation is helping to transform supply chain safety, transparency and compliance.

2. Gather, analyse and use data to make business decisions

Digitalisation requires data. Digital tools are used to analyse data to find patterns and trends and provide information on what to do in response to these patterns and trends. Collecting and analysing data can help you control your business operations and make better business decisions.

Digital tools can help you collect, store and analyse data. For many exporters, the first step in digitalisation is writing down data in Microsoft Excel or Google Sheets. This can be a good start. It allows you to learn how to deal with data before investing in more sophisticated software.

Other data tools can also help you analyse data and occasionally give tailored advice on business decisions. Many tools are specifically designed for agricultural production or supply chain management. Most of these digital tools come with functionalities to collect data. Once the data is collected, the software automatically analyses it and will present you with relevant information and advice.

Examples of digital tools for data analysis include:

- iFormBuilder by Zerion is a data collection tool for agriculture. The system is customisable and easily linked to other platforms or applications. Users can create lists, collect pictures, record GPS data and more.
- FarmerLink is a data platform for smallholder farmers that enables them to make informed decisions regarding crop selection, irrigation and pest control. It also helps establish connections with suppliers and customers.
- Cropin offers farmers data-driven advice on making strategic decisions. Their solutions improve oversight, productivity and input usage.
- KoBo Toolbox can be used by larger organisations to collect data on producer practices and environmental circumstances. This data can be used to review and design production strategies tailored to the needs of farmers.

The data you collect is the input for digital tools. Therefore, these tools will only work correctly if the data you collect is complete and correct.

Tips:

Ensure that all the data you collect is accurate and complete. Incorrect data will lead to incorrect analysis and output from your software.

Implement a clear and comprehensive protocol for collecting and storing data to prevent inconsistencies.

Train your staff on collecting and storing data.

Comply with a data privacy policy when sharing data with third parties. Today, international regulations are still inconsistent, and laws vary from country to country. You can use the DigitalFarmers Profiles: Reimagining Smallholder Agriculture report from the United States Agency for International Development (USAID) as a guideline.

3. Use e-commerce platforms to increase sales

Engaging with e-commerce platforms can significantly increase sales as e-commerce allows you to reach buyers around the world. E-commerce refers to the trade of goods and services via the internet. Information and money are exchanged digitally in e-commerce, making it a practical and time-saving way of trading for buyers and suppliers.

In recent years, online retailing and e-commerce have increased. This is partly due to COVID-19. These restrictions led agriculture market players to use e-commerce as a substitute for in-person interactions and transactions. After the pandemic, e-commerce continued to grow, and it now plays an essential role in business-to-business (B2B) and business-to-consumer (B2C) trade. The pattern of growth in e-commerce also applies to the natural ingredients sector.

E-commerce platforms allow you to advertise your business and products. Meanwhile, buyers can find exporters that meet their needs using search filters regarding price, origin and certification.

While European buyers who require large quantities may not use e-commerce platforms to find new suppliers, buyers of smaller quantities often use e-commerce platforms.

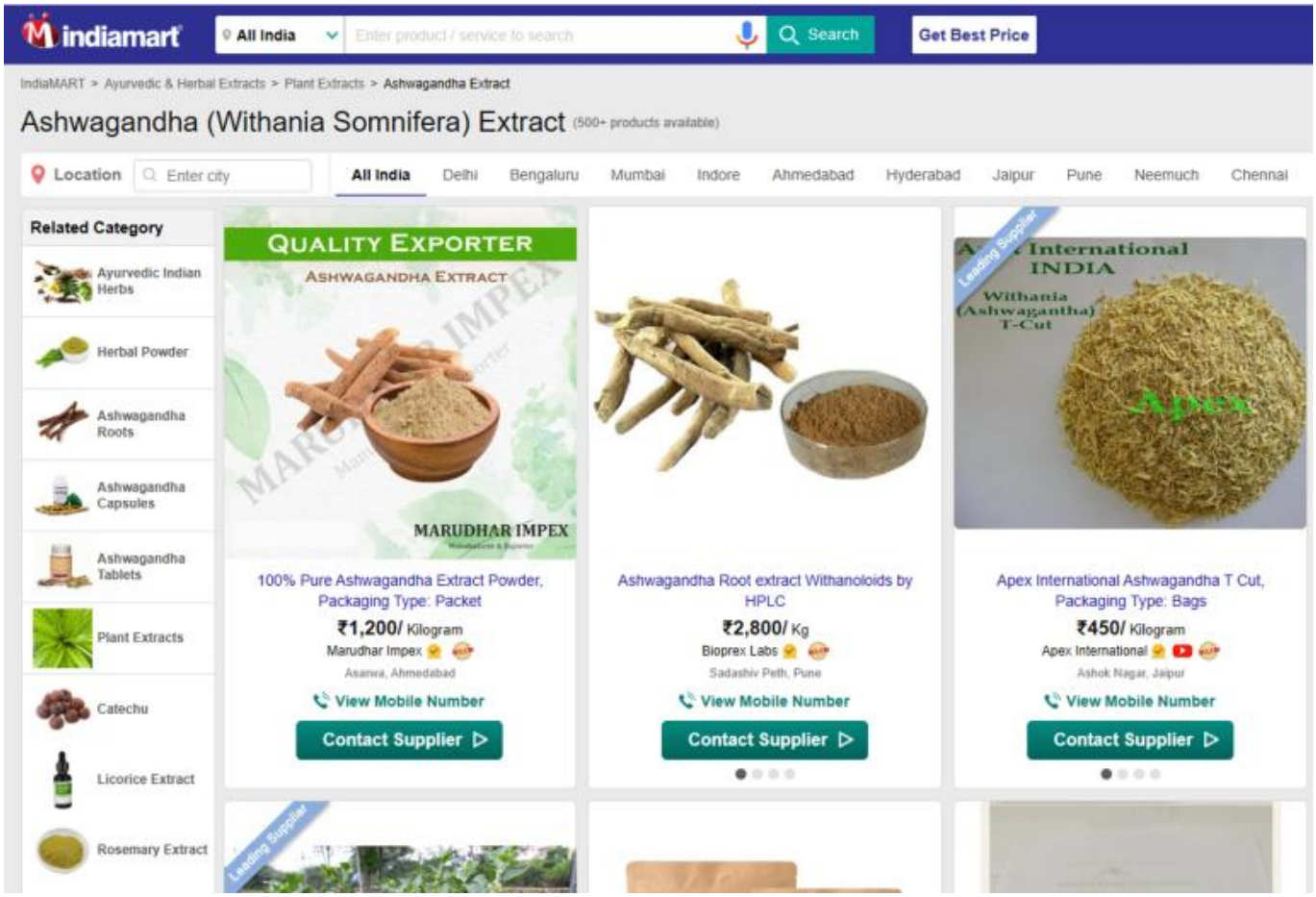
For exporters, the benefits of using e-commerce platforms include:

- Access to new and international buyers
- Direct connection between producers and buyers
- Makes it easy to connect with suppliers and buyers
- Sell products with faster service
- Easier transactions
- Decreased information exchange costs
- A likely increase in sales
- Visibility of good customer reviews

Consider using B2C platforms if you are interested in low-quantity trades. Amazon and eBay are the most popular B2C e-commerce platforms in the world. While these platforms have a lot of users, most buyers are consumers and are generally less interested in buying ingredients.

Use B2B platforms to increase your market visibility to businesses around the world. Alibaba, Tridge, IndiaMart and Tradekey are well-known B2B platforms. Larger companies use B2B platforms to look for new suppliers and learn about the quality of products by buying smaller quantities as samples. Buyers who need smaller quantities use B2B platforms as they provide quick access to information and easy transactions. Examples of online market places that focus on health ingredients include Ingredients Online (focused on sales in the North American market) and Knowde.

Figure 2: B2B e-commerce platform Indiamart



Source: Indiamart, 2024

Producers Market, Agri Marketplace, TruTrade in Africa and ComX in Nigeria are examples of B2B e-commerce platforms that connect farmers with exporters. On these platforms, farmers offer their raw produce to buyers. You can use these platforms to source the products you want to export.

Before getting started on an e-commerce platform, you have to comply with several requirements:

- A stable internet connection is necessary to quickly respond to buyers' questions, register and organise orders, and update product details and availability.
- A good understanding of e-commerce is necessary to set up a supplier account and manage sales.
- A digital banking account is needed because payments are made through direct online banking (see Tip 6 about digital finance).
- Time to manage e-commerce to do business and satisfy your customers.

Start marketing your product on one e-commerce platform so you can get used to how online sales work and keep track of managing orders and questions more easily.

When active on e-commerce platforms, you must dedicate time to make it a success. Ensure every customer is satisfied with the product by providing accurate information on quality and certificates and responding to questions. Dissatisfied customers may leave negative reviews, which can harm your reputation and sales.

Tips:

> Expect a lot of competition in e-commerce. Just listing your product is not enough: you have to convince buyers that your product stands out in terms of quality and price. Read the CBI's Tips for finding buyers to learn how to market your products online.

Check whether there are any online marketplaces in your country and use them to expand your market.

Learn how to market your products on e-commerce platforms. Follow the CBI's tips on how to start selling on e-commerce platforms.

Understand all the terms and conditions before joining an e-commerce platform.

Before paying a subscription fee to join an e-commerce platform or access its paid tools and services, determine whether it suits you and your product.

4. Increase traceability by using blockchain tools

To comply with European buyers' rising demand for transparency in value chains, you should invest in improving your business' transparency and traceability. The rise in European buyers' traceability requirements is fuelled by consumer demand and European regulations on due diligence. Digital tools based on blockchain technology can help you accomplish this.

In agri-business, the blockchain can make value chains more transparent and traceable. It allows for tracking the journey of products from origin to destination. At the same time, it enables all parties in the value chain to have real-time visibility in all transactions and processes along the value chain. The technology also prevents the falsification of information on sourcing, characteristics and certification.

Figure 3: How blockchain increases traceability

Source: Simar Kochar, 2017

By using blockchain in your value chain, sustainable and ethical sourcing can be verified more easily. This is

valuable for European customers and will likely become a mandatory requirement following the stricter European regulations on due diligence. At the same time, using blockchain can give insight into what happens to your products after shipment.

Examples of digital tools that improve traceability in agribusiness include:

- Smallholdr, which offers tailor-made digital solutions for organisations that engage with large groups of smallholder farmers. It provides its services through a mobile app and a web-based platform designed to collect and analyse data, manage field teams and track products in supply chains.
- Bext360 is a platform that links all the steps in value chains in a blockchain. This means the entire value chain is visible to everyone in the value chain, making product sourcing transparent and traceable.

Implementing blockchain requires the cooperation of other parties in the value chain. Most companies that provide blockchain technology work with networks of multiple producers and not with individual smallholders. This means you should work with your buyers and suppliers to implement blockchain in your supply chain.

Not all traceability tools make use of blockchain. For example, KoltiTrace is a platform that makes supply chains traceable and sustainable by enabling detailed registration and monitoring of production. KoltiTrace digitises producer data and makes it available for all parties in the value chain. It also automates data tracking, emissions and carbon removal monitoring, land use and deforestation.

Tips:

Ask for help. Starting with blockchain on your own is a huge step. Inform buyers if they want to implement blockchain technology in the value chain.

Read the CBI's study on blockchain in Europe to understand blockchain better.

Find examples of similar companies that have successfully adopted digital traceability tools. For example, look at how Tradin Organic in Sierra Leone has integrated Smallholdr into their value chain.

5. Integrate digital technologies in agricultural production

Integrating digital technology into agribusiness operations can enhance efficiency, productivity and sustainability. There are various digital technologies available that improve production processes. This is done through enhanced monitoring, data analysis and automation.

While there are clear benefits to using new technologies in terms of productivity, one common downside is the significant investment required to adopt them. This means it is essential that you only invest in technologies once you are sure they are worth the investment.

Internet of Things

The Internet of Things (IoT) is one of the most promising technologies in agricultural value chains. IoT technology allows physical devices to record and share data with little to no human intervention through their connection with the internet.

Several digital tools and technologies in the agricultural value chain use IoT technology. IoT can help improve productivity and quality and reduce operating costs through its applications.

IoT is used in farming in the following ways:

- Smart irrigation systems: IoT-enabled sensors monitor soil moisture levels and weather conditions. Farmers can use this information to decide when to irrigate. This helps conserve water, reduce costs and improve crop yield.
- Monitoring and precision farming: Devices like drones and sensors enable the monitoring of crop health, growth and the need for additional nutrients. Farmers can use this information in precision farming, only applying fertiliser and pesticides where they are really needed.
- Weather forecasting: IoT weather monitoring devices provide accurate local weather data. This information allows farmers to plan their activities and limit the risks associated with extreme weather events.
- Automation: IoT can automate certain farming activities using smart machines, such as automatic watering, autonomous tractors, robotics, harvesters and automated seeding machinery. This can improve efficiency and decrease the need for physical labour. While automation can save money by reducing labour costs, the initial investment is high.

Figure 4: Precision agriculture for SMEs

Source: Inter-American Development Bank, 2018

Drones

You can use drones to monitor your crops and get data that can be used to make farming decisions. Aerial drones are increasingly being used in agriculture. Drones can be used for monitoring and automated processes. Producers can either buy or rent drones for a short amount of time. Renting drones is often advised as drones are expensive and difficult to work with if you do not have the proper training.

Tips:

Assess which digital solutions align with your specific needs best. Identify a concrete problem that digital tools can provide a solution for. When comparing different options, think about who will be responsible for gathering data in your company and how (using which device).

Check if you have the technical knowledge and the funds for maintenance and set-up costs before you invest in new technologies. After the initial purchase, you will need funds for upkeep to ensure return.

Ask what tools within your network others use and assess if they could be useful for you.

Keep up to date with the latest developments so you are competitive. This is important because digitalisation is an ongoing process, and new tools are developed every day.

6. Use digital finance tools to access financial services

Accessing financial services is often difficult because of low availability, especially for smallholder farmers. A lack of financing can obstruct investments in inputs and productivity. Digital financial tools can help overcome this challenge by providing additional sources for loans, credits and banking services.

Several digital financing tools can be used to get financing for investment in agricultural inputs or practices, such as improved seeds and agricultural tools. Others offer basic banking services, such as digital financial transactions and savings accounts. You can receive payments and store funds using these tools.

Examples of digital finance tools include:

- KoltiPay: This tool offers access to loans, savings, insurance and an easy way to make and receive payments. The tool was1 specifically designed for farmers and agribusinesses.
- Agri-Wallet: This tool gives farmers and aggregators easier access to financing from a global network of credit providers. This tool is also used for receiving and managing funds.
- CashCard: This tool can be used by farmers in Nigeria. Farmers can access a savings account, payment services, and agricultural input credit through this tool.
- FarmerLine: This tool helps farmers by giving them access to credit and loans that can be used to buy agricultural inputs. The tool works with a flexible repayment system, allowing farmers to pay back loans when they have sufficient funds.

Figure 5: Functionality of the Agri-Wallet tool

Source: Agri-Wallet, 2023

Not all tools will be available or suitable for you, depending on your location. Regional reach and product applicability can be significant constraints on who can use digital financing tools. Search for digital finance tools

that are available in your country.

Tips:

Read the Digital Financial Services for Agriculture Handbook by the IFC and Emerging business models to support the financial inclusion of smallholder farmers by the GSMA to understand the current development in digital financing tools for smallholder farmers.

Build on your credit worthiness to get access to more credit. This requires you to keep track of your business records, have a coherent and robust business plan, have a clear investment plan and be able to provide information on your credit history and your assets.

Ensure you understand how a digital finance tool works and that it aligns with what you need before you start using it. Sometimes, digital savings can only be used within the agricultural value chain.

7. Educate yourself online to improve your business

There are countless online resources that can provide you with the knowledge and tools you need to improve your business. Use them to your advantage. Search for information specific to your company and for new developments, tools and opportunities.

Popular online places to look for information include sites like Google Search, Bing, YouTube and ResearchGate. You can find a wealth of information using these platforms. Use specific search terms to find what you need. For example, if you want to learn more about agriculture developments, search for 'agriculture development' or 'future of farming'.

Useful online sources include:

- International Trade Centre: This organisation's website provides information on finding trading opportunities, regulations and tariffs, and an extensive section on organising exports.
- COLEAD Training: COLEAD offers different courses on their website, including agriculture self-study courses and a broad range of resources.
- CBI: Besides this study on digitalisation, the CBI website offers a lot of information on the natural ingredients for health products sector. Examples include a variety of product specific factsheets, how to find buyers, market statistics, trends and how to become a socially responsible exporter, amongst other studies.
- FAO: The United Nations Food and Agriculture Organization (FAO) offers many online publications on a variety of topics concerning developments around food and agriculture.

There are several mobile applications and digital platforms that farmers can use to learn about agricultural practices. Farmers can learn new skills and innovative farming techniques. Some applications facilitate the connection between farmers and agriculture experts. For example, Agrolearning, by Solidaridad, offers free training tools to promote sustainability practices for all actors in the agricultural supply chain. The Rodale Institute provides educational materials on organic farming.

Tips:

Subscribe to the CBI newsletter for information about the natural food additives sector, digital events, and webinars.

Look through the suggestions YouTube gives based on the video you looked up to expand your

knowledge.

Follow free online training to broaden your knowledge. For example, Catholic Relief Services offers a free Smart Skills For Smallholder Farmers course.

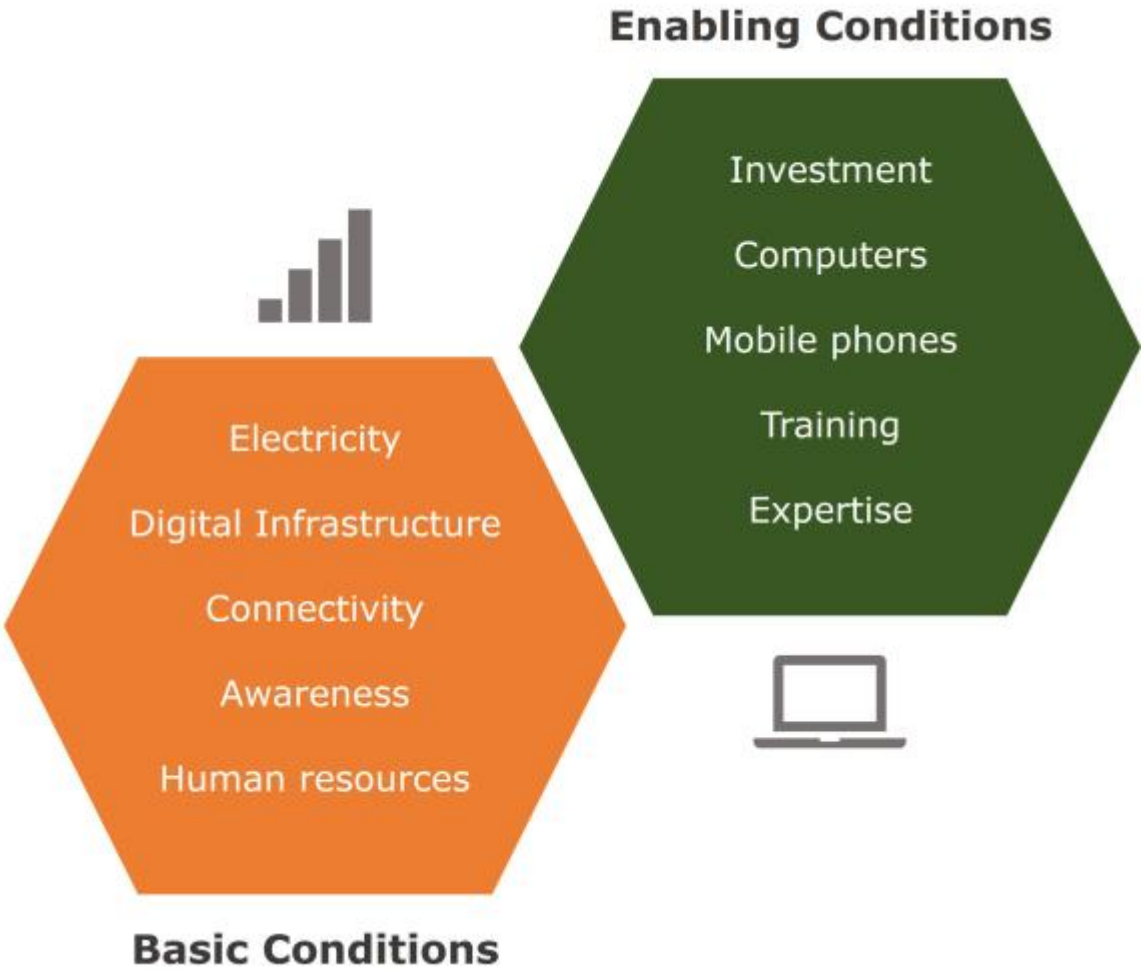
8. Support your suppliers in their digitalisation process

Digitalisation requires certain pre-conditions. Access to the internet and hardware, such as smartphones and computers, are needed for digitalisation. If your suppliers do not have access to the internet or the necessary hardware, you can try to change this to enable digitalisation on their part.

It could benefit you when your suppliers integrate digital technology into their operations. Their productivity may increase, as may the quality of their products. Helping your suppliers get digitised can be achieved in different ways.

- Information: as a first step, you can inform your suppliers about the possibilities of digital tools and find out if they are interested in using them. Some suppliers can integrate tools independently, depending on their investment opportunities, digital infrastructure and skills.
- Training: you can organise a training session for your suppliers to teach them about the technologies you think might benefit you and the suppliers. Ideally, you should invite someone who is experienced in giving training on the topic.
- Invest: if your suppliers do not have enough resources to make the needed investments, you can consider covering them. Before doing this, be sure that the digital tools will positively affect your business and that the suppliers can pay you back.
- Lobby for digital infrastructure: you can advocate for investment in digital infrastructure in your area. Talk to local government or organisations that can make these investments.

Figure 6: Conditions for adoption of digitalisation



Source: ProFound, 2024

Tips:

- Look for digitalisation projects in your area and try to get involved.
- Stimulate and support your suppliers in adopting digitalisation projects.
- Ask your regular buyers if they are interested in supporting digitalisation projects. Highlight the potential benefits for them.

9. Look for organisations and projects that can help you go digital

Integrating digital tools is challenging. It takes time, money and adequate digital skills. Therefore, you should consider asking organisations that offer support and guidance in going digital for help.

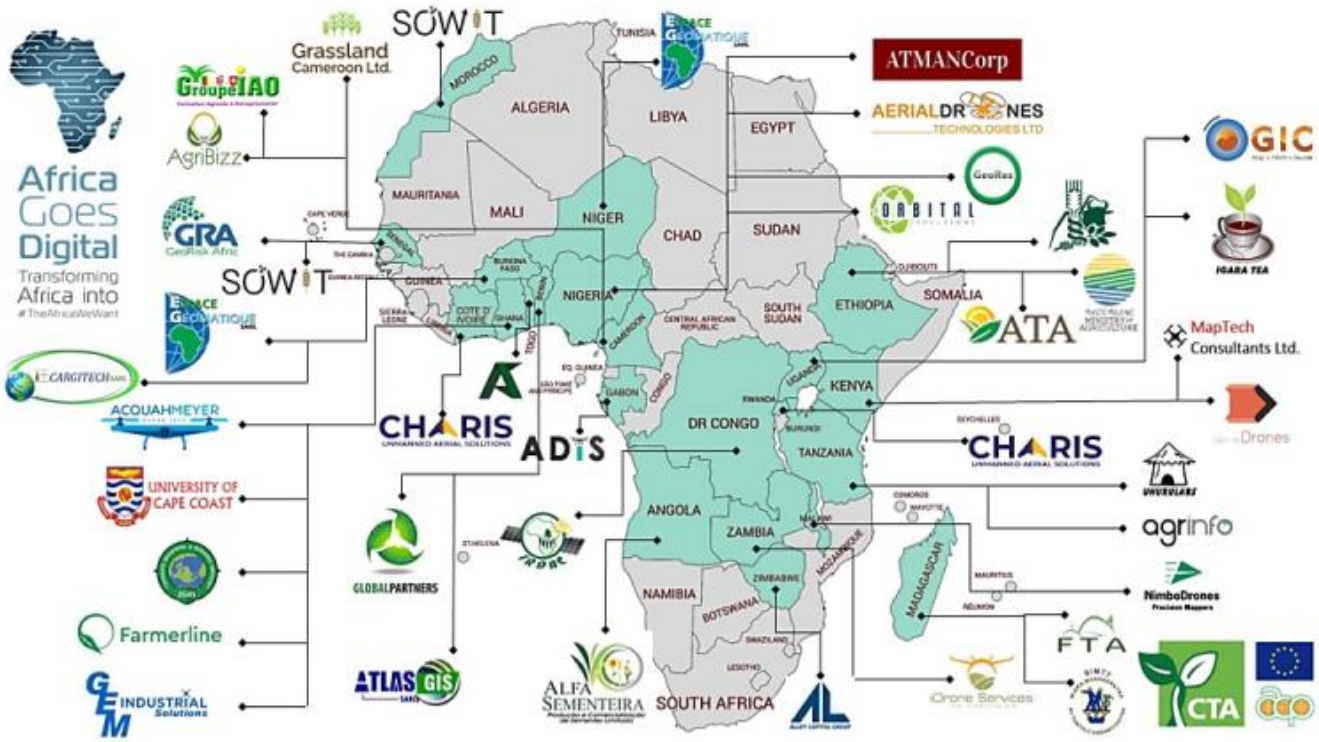
Digitalisation is a hot topic for support organisations because it significantly improves business opportunities for SMEs. As a result, many NGOs, government agencies, and private sector organisations active in agricultural development have projects that support digitalisation. Using the support of these organisations makes your digitalisation easier and more effective.

You can find organisations active in your country by using search engines like Google. For example, if you are in Kenya, you can use the search terms ‘support digitalisation Kenya’.

Examples of support organisations and projects include:

- GIZ Digitalisation: a German international development agency that supports sustainable development in developing countries. Its digitalisation projects provide digital support in several developing countries.
- CCARDESA: an organisation that supports agriculture research implementation in southern Africa. Its website features an interactive map that shows where digital agriculture skills training is provided.
- Agrifin: a project that supports the introduction of digital technologies and innovation services to smallholders in Indonesia.
- Village Link: a digital support project in Myanmar. The same company developed the application Htwet Toe, which allows farmers to upload photos of their crop issues and ask questions in recorded voice messages. Farmers can receive advice from agricultural professionals on suggested treatments within 12 hours of asking.
- Markup: an EU-funded programme that supported the establishment of the East African Trade Information Portal and the Kenyan Trade Portal.
- Africa Goes Digital: an association of digital operators seeking to enable and promote the use of digital technologies for development in Africa. The members of this association offer multiple services, such as drone-based consultancy and training.

Figure 7: Members of Africa Goes Digital



Source: Africa Goes Digital, 2023

Tips:

Search and connect with local organisations that can help digitalise your business.

Participate in training organised by support organisations.

Access the GIZ Innovation Fund website to see if they have any digitalisation projects of interest to

you in your country.

Read the CBI's studies Tips for Doing Business and Tips for Finding Buyers to learn more about using social media and optimising websites.

ProFound – Advisers In Development carried out this study on behalf of CBI.

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