

21/June/2023

Proposal for fund 10 of Products & Integration Cardano..

Proposal Questions:

1. Problem statement

Our earth is in a constant state of change and it's difficult to analyze and optimize our farming and growing practices without verifiable and accurate data. In view of global challenges such as climate change, digitalization / interconnectivity, access to economic identity and knowledge, and dependency of third parties, we are already seeing the consequences of resource scarcity and the ever-increasing cost across the whole supply chain. Followed by the major question on, how can we grow produce more sustainably and efficiently, while creating equal opportunities for everyone wanting to be involved in the process. For example creating economic identity for small farmers of developing countries or giving the end-consumers more freedom of choice on a transparent and verifiable platform, so called Leaf-MyGrow.

2. [General] Proposal title

LeafAI lets you grow more sustainably and efficiently, fights resource scarcity, while creating economic identity for small farmers all over the world.

3. [Gen] Summarize your solution to the problem

In order to master these challenges successfully together, we need lots of data from a wide variety of sensors(e.g. soil moisture, leaf wetness, weather station, fertilizer value etc.) in different environments to gain insights and knowledge on how to grow produce most efficiently and sustainably. Our product, Leaf-Connect (Video-[data node](#)) is already collecting data from various farmers all over Europe (e.g. Austrian Chamber of Agriculture to verify their scientific research) and has been helping with improving their crop's quality, yield, pest prevention and resource management. Our goal is to have a decentralized archive of best growing instructions based on your environment and species. Through our platform, Leaf-MyGrow, everyone has the chance to collect, analyze, create ML-Solutions, sell, learn and optimize with accurately collected data-sets, while making a profit in our Green Leaf

Coin. Creating the value chain through Cardano's Blockchain helps us to create the network we need. So, people can get directly connected, develop ideas and businesses, implement agricultural devices, vote or get directly in touch with the preferred farmers to minimize dependency on corporations and create equal opportunities for everyone. Followed by a decentralized marketplace for their products(e.g. scientific results, improvements, devices) and produce locally and globally. Small scale farmers should be able to outsource their problems to the community, combined with options of equity, leasing, donating, adopting sensors and more. This results in the creation of economic identity and a user portfolio of "good will"-actions for getting involved and making a difference. In later stages of our roadmap, we are planning to make the assembly and production of our products open source and decentralized. Meaning, creating access to knowledge and potential jobs through building small scale apprenticeship centers for achieving licensed electricians, production and sales positions.

4. [Gen] Summarize your relevant experience

Of course there are more people working, helping and supporting LeafAI. But for now, our core team consists of 3 people who are the driving forces of our company. We are able to cover most of the company's processes with our broad experiences and knowledge.

LeafAI was founded in Germany by Manuel Friedrich in 2020 who has been active in the European agricultural world for over 15 years. His journey of developing sensor technology for agricultural purposes or end-customer use, started about 11 years ago. With the success of building the Leaf-Connect, we are already able to optimize our customer's process of growing and have increased their yield.

The second core team member is Lou Magiera, Co-Founder and Chief of Blockchain. He has been involved in the Blockchain world for 9 years and had the opportunity to develop a diverse set of skills in Silicon Valley, California for over 6 years. He has been to Tim Draper University, has founded two successful startups and is running a stake pool with two different co-founders on the Cardano blockchain, named [CARE], stake.care. Last but not least, our Chief of Sales Officer, Sami Housseem Hagui. He is the guy for developing sales strategies,

managing employees and closing deals. He has been able to build an outstanding international network of people striving for innovation and technology. Some of his skills he has developed while working 7 years with international customers from all over the world in person. Knowing the different business etiquettes and ways to go is key. He had also been running two middle class companies with a total of 12 employees.

5. [Gen] Website/Github relevant links

- a. [Website - Leafai.io](#)
- b. [LinkedIn LeafAI](#)
- c. [Teleg LeafAI channel](#)
- d. [instagram: leaf_a.i](#)
- e. [LeafAI-Youtube](#)
- f. [Leaf- Connect Website](#)
- g. [Leaf-Connect \(data node\)](#) Video
- h. [Teleg stake.care](#)
- i. [Discord stake.care](#)

6. [Gen] Requested funds in USD

- a. \$78.000

7. [Impact] Describe proposed solution

a. Problems

i. Farmers (established & small scaled)

- 1. Analyzing and optimizing growing conditions and environment
- 2. Decreasing yield

ii. Resource scarcity

- 1. Increasing costs for everyone
- 2. Food waste

iii. Lack of access to economic identity and knowledge for farmers in developing countries

b. Problems in context

i. Farmers

1. The biggest challenge farmers face is to analyze and optimize their growing conditions. They need to gather a lot of different information from a variety of sensors or devices to be able to develop a better strategy for managing resources, preventing pests, increasing yield and quality.

“The largest source of food waste is in the production phase where over 500 million tons is lost due to things like crop pests and ineffective harvesting and irrigation.”

[source: [The World Counts](#)]

Most of the time agricultural devices and platforms don't interconnect with each other and it's a burden to get all the needed data in the right format, without having to hire an IT team and installing a server room (huge costs).

2. Furthermore, there are many different parameters causing the continuous decrease of farmer's yield in each growing cycle. For example, being specialized in monoculture, meaning there is only one type of plant cultivated. This is tremendously increasing the risk of ecological damages, diseases and the extinction of insects (pollinators). Another factor playing in, is the overuse of synthetic manure and fertilizer. They might help stabilize or increase your yield short term but next growing cycle you need to use more in order to hit the same results. This ends up in toxic sediments inside the soil and produce itself, making it less usable each time and increasing the risk of cancer, diseases or allergies.

ii. **Resource scarcity**

1. Resource shortage is a very big topic that has to be addressed. The earth can't regenerate its ecosystem and resources fast enough. To put it in perspective, if the world's usage of resources is the same as Germany's, we would need 3 earths, USA 5 earths and China only 2 earths, to be able to let our ecosystem self heal. [source: [National Footprint and Biocapacity Accounts 22](#)]

Even though our birth rate is decreasing we are expecting to hit the target of 10B people by 2050. That means, around sixty years ago one farmer needed to provide for only 75 people, right now it's at around 155 and in the future it's very likely to be even more.[sources: USDA, [Sullivan](#)]

Supply and demand drives the prices, so it usually increases the costs across the board, affecting the poorest and the weakest in the chain. Vice versa, most people and companies with money and not living in developing countries have to account for the biggest cut of all food waste. Worldwide 2,89 trillion pounds or 1,3 billion metric tonnes of food is getting thrown away each year. That's an equivalent in weight of 130 million empty mid-sized school buses. [source: [The World Counts](#)]

iii. **Economic identity**

1. Economic identity is about being able to verify your credentials by anyone, anytime, anywhere, and have control over your data and your own life. For those who lack it, it's impossible to do business nor get connected with other people on the other side of the globe.

IOHK explained it pretty well:

“For most people like me in the developed world, there are many things we take for granted. The fact is that it's easy for us to have an identity, passports, driving licenses. It's easy for us to travel.

It's easy for us to prove our credit worthiness and get credentials. It's easy for us to borrow money, get insurance, and to process payments.[...] But when you live in the developing world, things are very different. It's very difficult to globalize. It's difficult to prove claims, whether you're producing something with fair trade or in a sustainable way. It's difficult for people to receive money and send money. Remittance transactions carry a fee amounting to between 8% and 15% of the value of the transfer. When a person wants to borrow money, if it's even possible, micro-finance transactions can have interest rates as high as 85%, according to the World Bank.[...]The problem is that the legacy systems we have are fundamentally incompatible with total globalization, without admitting total centralization behind one standard, such as the American way or the Chinese way.[...]We no longer need central entities. We no longer need central governments. Just like the internet, the things that process our payments, establish our contractual relationships, hoist up our identity, prove our property ownership, and permit the gears of commerce to work, can be done through the very same decentralized technology that has enabled innovations such as Bitcoin, Ethereum, and Cardano.” [source: [iohk blog](#)]

2. As an end-consumer it's very difficult or mostly impossible to prove if your the product you have bought is fair-trade and if the extra money you paid is even supporting or has been received by the right person or organization. The impact of your “goodwill actions” are not really traceable, verifiable nor measurable. Third parties are taking our freedom of choice in terms of who we want to support, do business with, what we want to change and how we want to interact with people across the world. So, it’s pretty frustrating, while not being incentivized to support and help others grow their businesses and improve their lives.

c. Solution

- i. We, at LeafAI, made it our mission to address and start solving the problems of farmers, resource scarcity and access to economic identity. Giving everyone (small-farmers, agri-device-producer, mission supporters or end-consumer) a place to let their voice be heard and a chance to develop and grow above it.

With the accomplishment of building the Leaf-Connect ([data node](#)), we have already been taking the necessary steps towards a successfully working solution for analyzing and optimizing crops.

Our vision doesn't stop here and with the "power" tools provided by Cardano, we are building a place for everyone who is eager for an open-minded, reliable and transparent platform, called Leaf-MyGrow. Everything is coming together and is handled through our platform, for example sensor data sets being analyzed and optimized by M.L. models provided by us or the community, providing an archive for best growing instructions in different environments, letting people vote on important topics regarding the agricultural world or our platform, adopting one of our products for a farmer in need and joining the coin rewards program or doing business and helping farmers develop their services or companies. Depending on how well DIDs (digital identifiers) and governance is implemented, accepted or tolerated by governments and law, we would also offer a decentralized crowdfunding service and marketplace for small farmers and companies seeking support of any kind or even co-founders.

The network is powered by our GreenLeaf [Coin](#) and can be acquired through our [ICO](#) or partner's [ISPO](#). The single stake pool operator, [\[CARE\] stake.care](#), is helping us to develop the tokenomics and opened us up to the infinite possibilities Cardano provides. We are always happy to start the conversation and learn from each other, so please don't hold back on your thoughts.

8. [Impact] Describe how your proposed solution will address the challenge that you have submitted.

- a. Our solution for farmers not being able to analyze and optimize their cultivation, without huge amounts of work and costs involved, is our data node, the Leaf-Connect. It's a one time purchase, stand-alone, maintenance free and wireless device with which any [type of farming sensor](#) can be connected. The LeafConnect hangs off a wall or is placed through a zip tie grommet. The device is powered by a solar cell and a built -in battery, so it can be self-sufficient. The setup is very simple, scan the QR-code on the back, set the name, select the position and you are good to go. Every 10 minutes the Leaf-Connect sends the measured data to the cloud(centralized for now) and you are instantly able to monitor, analyze and optimize your yield and resource management. We think data and intellectual property is very valuable and should belong to the correct owner. Everyone who contributes should be able to make a profit from their work. That's why we planned on paying the aggregators for the sensor data in Green Leaf Coins and put everything down into a Cardano value chain. Our platform Leaf-MyGrow gives an opportunity to get in touch with other farmers, researchers, customers or the community, to get the conversation going and develop together. We are working on features for example M.L. models to be able to forecast agricultural damages, impact of climate change or building an archive of best ways to cultivate. After some reference time our sensors are able to give the farmer a better understanding of his actions, while improving his procedure. Additionally, the community can work on models or solutions to receive bounties set by farmers or agri-device-producers. Furthermore Our team is developing more products to increase the reach of sustainable growing practices and covering more important data, for example the Leaf-Homesense, the Leaf-Scale(Cannabis), Leaf-Climate(climate computer) or drone-image-analysis. We are going back to the roots of being able to grow sustainably without any induced restrictions and try to heal the process, through offering organic products and techniques.

- b. Resource scarcity is affecting everyone across the globe and it hits the weakest and poorest amongst us. It results in increasing costs for everyone, putting a hold on industrial sectors or even cutting off whole supply chains, leaving only big corporations in the game. Nowadays, the way of offering and getting the cheapest price is to produce and purchase huge amounts of products to profit from the quantity discount, even though there are not enough sub-purchasers or customers beforehand. This gives a huge rise to food waste and resource scarcity. Therefore, we are going to build a decentralized local and global marketplace, called Leaf-Echo. Within its limits, we are offering devices and innovations, produce and a remainders sale opportunity. Followed by implementing and connecting farmers with official eco friendly and sustainable supply chains and non-profits. The utility Leaf-Echo also offers a decentralized map that helps to distribute and sell local produce and products from end-consumer or users on an even smaller scale. We are trying to make every step sustainable, verifiable and reliable with the help of the Cardano-Blockchain and the community. If you are not a farmer but an innovator, have scientific results to present or other skills to offer, we would also like to invite you to our network and marketplace to have the most diverse knowledge and wisdom combined.
- c. The world is in a constant process of change to become more and more interconnected and digitized, in which borders, restrictions and barriers of entry (e.g. economic identity, initial investments or lack of knowledge) play a big role. That's why, we are going to build a network of many different features that support and build upon it, to be able to achieve a fair and efficient green state. LeafAI strives forward to offer services like, adoption of agricultural-devices and giving it to farmers in developing countries. Or help each other to grow or do business together, donate seeds, lease property, solve problems or become a part of their company or services. We think that building a decentralized crowdfunding service could accelerate the development of economic identity immensely. Furthermore, down our roadmap, we are planning on making our sensor product open source. This creates an opportunity for people in developing countries to acquire a job and build their own small production or sales position. Combined with building a small scale apprenticeship

centers for them to learn and develop a licensed set of skills. LeafAI ambassadors are going to play a vital role for being oracles and a helping hand for farmers who get in touch with the technology and possibilities of Blockchain for the first time. We love the idea of self governing networks, giving people a chance to vote and spread their ideas through our platform. With all the utility features added up, the end consumer and network user are able to build their portfolio of “goodwill” actions and carbon footprint. We are open minded to any further thoughts that support Cardano’s mission and help to make the world a better place.

9. [Impact] What are the main risks that could prevent you from delivering the project successfully and please explain how you will mitigate each risk?

a. Coding and building the infrastructure for our decentralized platform. Finding additional developers who are passionate enough about Blockchain and agriculture.

- i. **Solution:** Getting in touch with the (catalyst) community and look for fruitful collaborations;
- ii. Using platforms of different German offices for economic development and their digital innovation hubs;
- iii. Creating hackathons and learning sessions at universities like TU-Rosenheim, TU-Hohenheim, TU-Berlin or Uni-Salzburg;
- iv. IOHK & community offer great classes on haskell and plutus scripts;
- v. Also, we have contacts in Istanbul-Turkey and start looking for ambitious developers there;

b. Building our network of oracles and ambassadors to support and guide farmers in developing countries and verify their status quo.

- i. **Solution:**Creating collaborations with existing non-profit organizations and charities;
- ii. Building relations with resourceful and incorporated locals and groups;
- iii. Forming associations with corresponding governments and officials;

c. Big agricultural corporations and monopolies lobbying against our mission and proposition.

- i. **Solution:**Spreading knowledge and information is the key power, e.g. 2022 LeafAI did a 3.000 mile “cold-call”-tour through germany presenting our mission and products;
- ii. Offering a true innovative and cost efficient alternative to the common ways of farming and doing business;
- iii. Using decentralization to preempt single point of failure and minimize suppression;
- iv. Giving farmers and users of our platform more control and freedom to be able to develop their ways of doing;

d. Disinterest by farmers or end-consumers about sustainable -growing/ -production and resource conservation.

- i. **Solution:** Building products for everyone(farmers, users, end-consumers) to see it first-hand and feel the possibilities of the digital world, e.g. sensor technology for home use(Leaf-Homesense, low-cost version); decentralized platform, e.g. programmable donations or product adoptions to be able to verify the impact of their “good-will”-actions;
- ii. Incentivizing each step on our platform and creating features for any amount of work and support being contributed;
- iii. Giving people opportunities to let their voice be heard and start creating solutions for their preferred topics, e.g. voting, indicating problems or presenting ideas;
- iv. Increasing costs across the board is almost impossible to avert, that’s a reason for farmers to look for innovative sustainable equipment and processes to be able to be profitable.

- e. (small) Farmers not having access to digital devices (cellphones, laptop) or connectivity to monitor and analyze their growing conditions or use of our platform.
 - i. **Solution:**We are working on a low-cost, solar powered, intuitive “e-book reader” styled device to grant access to monitoring and our platform with it’s services;
 - ii. Connectivity wise we are already using LoRaWAN(long range) for our devices and are eager to become a partner with World Mobile Token to improve connectivity;
 - iii. We have our own gateways that are able to send data over 60 km, additionally to a meshed network.

10. [FEASIBILITY] Please provide a detailed plan, including timeline and key milestones for delivering your proposal.

- a. Our first proposal underlines the main blockchain vision and goals as a whole. We know that achieving our last milestone and delivering the green state in one proposal is difficult. That's why we start to focus on the foundational(MVP) blockchain features first. That gives us a chance to make a straight plan for the next necessary steps to fulfill our key milestones and proposal within the next 12 months. Being agile, innovative, community driven and open-minded is very important to us and we have based our time line upon them.

What is being focused on?

- i. Leaf AI’s vision to revolutionize the way we grow plants and interact with each other, can only be achieved with a clear path, while the key steps are being focused on.
Our underlying foundation for the proposal to work, is based on the sensor products and monitoring platform we have developed and already have sold to established farmers (greenhouses, agriculture outdoors) in europe. From there on we are able to provide the right tools for people to improve their businesses and create their own solutions. That's why we focus on working side by side with farmers, agri-device producers, consumers and the community to offer the most versatile products, services and solutions. Also, economic identity is a key factor for

Leaf AI, so features like sensor adoption, farmer's portfolio, solution bounties or connecting with the community, are the first steps. Creating the Leaf-Ambassadors program to guide small farmers with our products and the platform is strengthening eco-id even more. Furthermore, they stay connected with them, create a small network and act as a human oracle. Followed by the marketplace and Leaf-Echo in later stages.

ii. **Key Milestones**

Over the span of the next year, we are planning to grow a strong community base, expand our Leaf AI team plus product line and provide a solution to accomplish the challenges we have submitted.

First, we have decided to enter many geographically different markets to be able to build a diverse network of people from different backgrounds. Starting with the move and reopening of our company in Dubai (founded 05/2023). Within the Emirates there is more potential for innovation and growth, compared to the over bureaucratized and conservative Germany. Meanwhile, we are extending our reach with events, webinars or business events to find new team- or network members that help develop and grow with our blockchain solution. Until this point we are going to have more products in our portfolio that help receive more useful data for sustainable growing.

Second, we need to develop and code the first utility of our Green Leaf Coin. That would be the payment for agri- data acquisition combined with an adoption utility for non farmers. Everything is settled and verified within a value chain on Cardano.

Third milestone is to create a platform for farmers and the community to present scientific research, peer review, find solutions and maybe sell it.

Fourth, starting an alpha trial of ambassadors program to get the first farmers of developing countries onto the platform and connected with the sensors, community and blockchain.

Additionally down the road we are looking for many different partnerships with community members, NGOs or sustainable supply chains. These steps combined bring us closer to a working blockchain solution and hopefully to a more verifiable and greener world.

b. End of 2022 till April 2023

- i. Hosting Blockchain/Cardano events and webinars for newcomers, farmers, developers and customers
- ii. Creating working groups at different colleges like TU-Rosenheim and TU-Hohenheim
- iii. Reopening the company LeafAI and entering the agri-market and blockchain world in Dubai / Saudi Arabia
- iv. Doing PR and visiting events presenting our products and vision (CardanoSummit 22, Cultiva, CannaTrade, Agraria, Kartoffel Messe)

c. May till August 2023

- i. Getting the community involved and connected to expand and grow the LeafAI team
- ii. Developing a market campaign with [Naked Media Group](#)
- iii. Reaching established farmers and product investors in the Emirates to boost and financially support our proposal and vision

d. September till end of 2023

- i. GreenLeafCoin development: Payment for data acquisition and Sensor Adoption utility
- ii. Start developing the scientific research and community platform
- iii. Cardano summit 2023 Dubai

e. January till April 2024

- i. Accomplishment of the scientific research and community platform
- ii. Closing partnerships with NGOs and sustainable supply chains

f. May till August 2024

- i. Expanding our Leaf AI ambassadors program to create oracles to guide farmers and get them connected
 - ii. Getting first small farmers of developing countries onto our platform
 - iii. **MVP of decentralized platform (Leaf-MyGrow) with it's MVP Blockchain features**
- g. We are really excited to go on this journey with you. We have a lot of things coming and waiting to be announced, like new partnerships, products and services. Though, we can't disclose all of them quite yet. So, over time we are going to add on and update our timeline, milestone's status and achievements in detail.

11.[FEASIBILITY] Please provide a detailed budget breakdown.

- a. We have started to sell our sensor solutions beginning in 2022 and have been growing organically since. Reinvesting every penny to maximize our growth potential, pushed us to where we are right now. Speaking of the cardano funding, we are going to build upon many different pillars of financial support. Meaning, we want to share and use the funding to give back to the community who builds and grows with us.
- b. CEO Manu \$5.000/year
- c. CBO Lou \$5.000/year
- d. Community event and hackathon \$7.000
 - i. in Dubai, invite sponsors, setting a bounty
- e. Building "data acquisition reward" & "adoption" utility \$32.000
 - i. with 3rd party or community based 4 month work
- f. Building Scientific research & community platform \$11.000
- g. Creating alpha test ambassadors program w/ farmers \$18.000

12. **[FEASIBILITY] Please provide details of the people who will work on the project.**
 - a. **Manuel Friedrich CEO**
 - i. [LinkedIn](#)

 - b. **Lou Magiera Co-Founder, CBO**
 - i. [LinkedIn](#)

13. **[FEASIBILITY] If you are funded, will you return to Catalyst in a later round for further funding? Please explain why / why not.**
 - a. We planned on kicking things off and starting the engagement with the cardano community with our first proposal. Depending on how well we can support the challenges with other financial help for example through closing major sensor deals in the emirates. We might have to submit more proposals along the way. Those would be small additions to our existing vision that need more focus and specialization. The decentralized fund is not going to be our only source of investment to boost fulfillment and development.

14. **[FEASIBILITY] Are you or any member of your team working on any other proposals in this Fund10?**
 - a. No

15. **[FEASIBILITY] Are you or your team working on any other proposals from previous Funds?**
 - a. No

16. **[AUDITABILITY] Please describe what you will measure to track your project's progress, and how will you measure these?**
 - a. The measurement metrics for the success of our project are the amount of sensor products in use, amount and impact of optimized growing practices, community growth and activity on the platform, and deliverable features and services.
It's pretty easy for us to track the amount of sensors in use and

on the network, the more the better. We haven't set a certain number yet, because our portfolio of products is still growing and the use cases are only limited to the sensors you choose to connect. Although, we are expecting linear growth, if we succeed. Collecting data sets is only one part of the job, the other one is being able to understand and improve for the next growing cycle. With the help of our customers with their collected data, we are able to see the changes of resource usage combined with their improved yield. This gives us a chance to track the impact of the optimized growing solutions for example improved yield, predictions and reduced resources, like water, fertilizer, pesticides or electricity.

It's definitely not going to be an easy road to have our fully developed platform, but we are focused on building a steady and active community to evolve along with our mission. Growing numbers of new users and their type of commitment is a way of looking at the progress of the fulfillment. Also, being able to code and deliver all needed features to have a fully working decentralized blockchain platform is vital.

17. [AUDITABILITY] What does success for this project look like?

- a. There are many different factors that play a role for Leaf AI's mission to be accomplished. For example, we want to have all the needed products on our platform to have all the necessary data of the farming spectrum to be able to optimize and grow autonomously (in greenhouses or urban growing). With the success of our decentralized platform we would see a lot of engagement, new solutions and new businesses arising from all over the world. Our Leaf AI ambassadors would play a big role in the network and have the responsibility to build small local networks and guide farmers and customers through the platform. They act as an human oracle and verify certain processes that need special attention. Being able to support, provide ideas, develop and do business with your preferred farmer or becoming a gear in their company is key.

18. [AUDITABILITY] Please provide information on whether this proposal is a continuation of a previously funded project in Catalyst or an entirely new one.

a. This is an entirely new proposal.

19. Sustainable Development Goals (SDG) Rating

2 - End hunger, achieve food security and improved nutrition and promote sustainable agriculture

4 - Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

5 - Achieve gender equality and empower all women and girls

6 - Ensure availability and sustainable management of water and sanitation for all

8 - Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

9 - Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

10 - Reduce inequality within and among countries

12 - Ensure sustainable consumption and production patterns

13 - Take urgent action to combat climate change and its impacts

SDG Subgoals

- 2.3 - By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment.
 - *Leaf AI provides a platform for any type of farmer who wants to optimize their growing condition and safe resources. Meanwhile offering their product to people all*

over the world without the dependency on third parties. We keep track of the data and create an archive with the knowledge gained from analytics for everyone to prosper from. Additionally our platform has the potential to offer financial support like crowdfunding or business incubators. Everyone with skills or ideas can hop on and become a part of the movement.

- 2.4 - By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality
 - *Our sensor products are developed for ensuring sustainable food production and resource usage with the help of ML models. This means the farmer is adaptive to the changing climate and can act preventively. Being able to relinquish a lot of manure and pesticides help the soil to regenerate and improves the yield.*

- 2.a - Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular least developed countries
 - *Leaf AI has the vision to build a network of ambassadors with the focus to bring opportunities and support to areas that need it the most. Answering questions, getting them hooked up with our sensor products, services or the community and guiding them through the steps. More investment of money and skills are coming through our business hub and crowdfunding platform that we provide. New partnerships with governments, NGOs or companies are supporting the growth of underdeveloped regions.*

- 4.4 - By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship
 - *We are really trying to get everyone on board and offer opportunities for any type of involvement. Being able to cover the whole spectrum of building a set of skills or a complete business is important to us and we try to make it possible with our apprenticeship center / business hub.*

- 4.7 - By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development
 - *Creating win-win situations is one focus of ours and with the help of Cardano we are able to create economic identity , help boost economic growth and equal opportunities. Sharing the right knowledge for the fitting solution is key and we need a diverse platform of people from all over the world. Who share their ideas and wisdom.*

- 5.1 - End all forms of discrimination against all women and girls everywhere
 - *Leaf AI supports all women and girls and is happy to welcome them on the platform. We would love to see more female activity in the community and are open to the discussion to improve our impact in that regard.*

- 6.1 - By 2030, achieve universal and equitable access to safe and affordable drinking water for all
 - *We have planned on offering a service for building clean water wells that will approx. serve 2000 people for the next 15-20 years. The wells are powered by a water pump that's connected to our network and is able to collect useful output data. Of course we are going to offer the*

crowdfunding option to anyone who wants to become a holder of a water well while joining our coin rewards program.

- 6.a - By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies
 - *Leaf AI's solang is to "Grow efficiently and save resources", that's why we are always focusing on the fitting product for a problem. We can cover a lot of the related topics but not every aspect. Though we are eager to develop further solutions and services supporting the expansion of water- and sanitation related activities. For example, clean water wells, developing closed water system growing solutions, small scale water treatment plants or just our resource optimizing sensor products.*

- 8.2 - Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labor-intensive sectors
 - *Our combination of sensor products, AI optimization, crowdfunding, community driven projects and a business incubator helps increasing diversification, innovative technologies and economic growth.*

- 8.3 - Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services
 - *We really want to connect the developing countries with the world and open the door to economic identity for them. We are focused on sole proprietorship, small companies or just people with ideas and get them started with their*

enterprise. The community might become an equity holder of a company, help out with their skills needed to build a startup or people just prosper at our business hubs.

- 9.3 - Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets
 - *We are welcoming companies with well working products and services on our platform. Our goal is to give everyone a chance to present their ideas and products to the community and let everyone decide whether it's important, needs more development or gets funded and implemented right away. The finished platform is going to be fully decentralized and we want to step back from the decision making.*

- 10.3 - Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard
 - *Cardano's Blockchain vision is our guide line to build and offer a fair substitute to the common ways of growing and doing business. We are working on giving everyone the same opportunities and that's why we have chosen to use Blockchain technology to put it in stone and make it immutable.*

- 10.6 - Ensure enhanced representation and voice for developing countries in decision-making in global international economic and financial institutions in order to deliver more effective, credible, accountable and legitimate institutions
 - *One important feature of our platform is the voting option. This allows the community (farmers, consumers, users) to pin point to specific problems or ongoing projects that need more attention, funding or room for discussion. Giving everyone more room to talk is inevitable. So, agencies and the deciding people in the governmental structure see, hear*

and understand the ongoing problems and wishes.

- 12.2 - By 2030, achieve the sustainable management and efficient use of natural resources
 - *Leaf AI's core value is to be efficient with resources and sustainable development of doing business. With the fusion of all our services and products we can assure these factors.*

- 12.a - Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production
 - *We are going to open up to all markets in the world and actively work on bringing innovative technologies and new network structures to developing countries. Verified data and peer reviewed scientific achievements is a must, to be able to improve and build upon that knowledge.*

- 13.3 - Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning
 - *We are fighting climate change with the help of our products and AI optimization of resource usage while providing predictions.*