



## International Partnership on Innovation

### SAMS - Smart Apiculture Management Services

Deliverable N°6.1

### Documentation of Established Partnership Networks and Agreements

N°6 – Transferability and Partnership

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<b>Author(s)</b>	Konstanza Jochim (GIZ)	
<b>Reviewer(s)</b>	Aleksejs Zacepins (UNILV), Kibebew Wakjira (HOLETA), Robert Brodschneider (UNIGRA), Sascha Kirchner (UNIKAS)	

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### SAMS consortium partners

Logo	Partner name	Short	Country
 Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH (Coordinator)	GIZ	Germany
 U N I K A S S E L V E R S I T Ä T	University of Kassel	UNIKAS	Germany
 KARI-FRANZENS-UNIVERSITÄT GRAZ UNIVERSITY OF GRAZ	University of Graz (Institute for Biology)	UNIGRA	Austria
 Latvia University of Life Sciences and Technologies	Latvia University of Life Sciences and Technologies	UNILV	Latvia
 iceaddis	ICEADDIS – IT-Consultancy PLC	ICEADDIS	Ethiopia
 IQQO Oromia Agricultural Research Institute	Oromia Agricultural Research Institute, Holeta Bee Research Center	HOLETA	Ethiopia
 Universitas Padjadjaran	University Padjadjaran	UNPAD	Indonesia
 PRIMARY TRAINING & CONSULTING	Commanditaire Vennootschap (CV.) Primary Indonesia	CV.PI	Indonesia

## List of Abbreviations

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AB	Advisory Board
DoI	Declaration of Intent
DSS	Decision Support System
DW	Data Warehouse
EU	European Union
FC	Final Conference
ICT	Information and Communications Technology
LoI	Letter of Intent
PS	Partnership
PS1	Partnership 1: International Partnership on SAMS Business Development
PS2	Partnership 2: International Partnership on Bee Colony Data and Knowledge Exchange
PS3	Partnership 3: International Partnership on Apiculture Technology and Services
SB	Steering Board

## Summary of the project

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SAMS is a service offer for beekeepers that allows active monitoring and remote sensing of bee colonies by an appropriate and adapted ICT solution. This system supports the beekeeper in ensuring bee health and bee productivity, since bees play a key role in the preservation of our ecosystem, the global fight against hunger and in ensuring our existence. The high potentials to foster sustainable development in different sectors of the partner regions are they are often used inefficient.

### Three continents - three scenarios

(1) In Europe, consumption and trading of honey products are increasing whereas the production is stagnating. Beside honey production, pollination services are less developed. Nevertheless, within the EU 35% of human food consumption depend directly or indirectly on pollination activities.

(2) In Ethiopia, beekeepers have a limited access to modern beehive equipment and bee management systems. Due to these constraints, the apicultural sector is far behind his potential.

(3) The apiculture sector in Indonesia is developing slowly and beekeeping is not a priority in the governmental program. These aspects lead to a low beekeeper rate, a low rate of professional processing of bee products, support and marketing and a lack of professional interconnection with bee products processing companies.

Based on the User Centered Design the core activities of SAMS include the development of marketable SAMS Business Services, the adaption of a hive monitoring system for local needs and usability as well as the adaption of a Decision Support System (DSS) based on an open source system. As a key factor of success SAMS uses a multi stakeholder approach on an international and national level to foster the involvement and active participation of beekeepers and all relevant stakeholders along the whole value chain of bees.

The aim of SAMS is to:

- enhance international cooperation of ICT and sustainable agriculture between EU and developing countries in pursuit of the EU commitment to the UN Sustainable Development Goal (SDG N°2) “End hunger, achieve food security and improved nutrition and promote sustainable agriculture”
- increases production of bee products
- creates jobs (particularly youths/ women)
- triggers investments and establishes knowledge exchange through networks.

## Project objectives

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The overall objective of SAMS is to strengthen international cooperation of the EU with developing countries in ICT, concentrating on the field of sustainable agriculture as a vehicle for rural areas. The SAMS Project aims to develop and refine an open source remote sensing technology and user interaction interface to support small-hold beekeepers in managing and

monitoring the health and productivity in their own bee colonies. Highlighted will be especially the production of bee products and the strengthening of resilience to environmental factors.

- Specific objectives to achieve the aim:
- Addressing requirements of communities and stakeholder
- Adapted monitoring and support technology
- Bee related partnership and cooperation
- International and interregional knowledge and technology transfer
- Training and behavioural response
- Implementation SAMS Business cooperation

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## Executive summary

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During the SAMS project, an international ICT Apiculture Network was developed through the establishment of three international partnerships (PS). The partnerships were developed for the means of sustaining the results and ideas developed between January 2018 and December 2020 within the SAMS project. They aim at empowering target countries regarding needs on cooperation with the EU and provide access to training, education and funding, thus stimulating regional economies and innovations:

### **PS1 - International Partnership on SAMS Business Development**

The partnership aims at promoting business development in the apiculture sector and promotion of the SAMS technology. Objectives include added value by mutual learning and fostering national and international trade of bee products, including support of apiculture businesses concerning marketing, understanding policy issues and business development. By SAMS project end in December 2020, the partnership has partners from 3 countries including Ethiopia, Indonesia, Germany. Steering Board members are: *HOLETA, UNPAD, and The Local Enablers*.

### **PS2: International Partnership on Bee Colony Data and Knowledge Exchange**

The partnership aims at promoting research on bee-colony data and international knowledge exchange on bee-colonies, the SAMS system. Objectives include research on data management and utilization and on the usability of SAMS data for different user groups, as well as mainstreaming and further adaptation of the SAMS Decision Support System (DSS). By SAMS project end in December 2020, the partnership has 10 partners from Africa, USA, Europe and Indonesia. Steering Board members are: *UNILV, Labtek Indie, and Dr. Robert Brodschneider (from University of Graz)*.

### **PS3 - International Partnership on Apiculture Technology and Services**

The partnership aims to foster the development of and research on SAMS services and technologies in the apiculture sector. Objectives include research and testing of the SAMS device concerning issues of bee-management and bee-health, as well as mainstreaming of the SAMS system. By SAMS project end in December 2020, the partnership has a total of 8 partners from 6 countries, including Germany, Latvia, Ethiopia, Romania, Australia and Indonesia. Steering Board members are: *HOLETA, Labtek Indie, Dr. Sascha Kirchner (from University of Kassel) and Sascha Fiedler (from University of Kassel)*.

The partnerships were developed as international cooperation between partners from Asia, Africa, Europe, and beyond. In total, 30 partners from 8 countries (Indonesia, Ethiopia, Germany, Austria, Latvia, Romania, Australia and USA) joined in the partnerships during SAMS project time. Basis for the success of the establishment of the three partnerships was regular exchange between the project partners, cross reviews of activities and promotion of the partnerships and networking with local networks in the target regions. The partnerships were formalized through partnership agreements.

## 1. Establishment of the SAMS partnerships

The SAMS partnerships were established as part of the SAMS project aim to establish an international ICT network. They were developed during the second half of the SAMS project and officially started working with project end in December 2020. This chapter describes the process and strategy for the establishment of the three SAMS partnerships.

### 1.1 Responsibilities

The SAMS partnerships were developed in close cooperation between the GIZ and the leads of the partnerships.

The role of the GIZ as coordinator was to support and facilitate the organization and management of the network formation and member acquisition, especially with transfer countries and the EU. This included drafting and finalization of partnership agreements and lead of the signature ceremony during the SAMS Final Conference. The role of the partnership leads was to direct and lead the partnerships and to sign the respective partnership agreements:

- **HOLETA**: lead of PS1 – International Partnership on SAMS Business Development
- **UNILV**: lead of PS2 - International Partnership on Bee Colony Data and Knowledge Exchange
- **UNIKAS**: lead of PS3 - International Partnership on Apiculture Technology and Services

### 1.2 Development of the concept, aims and activities

The concept aims and activities of the partnerships were developed as the result of regular meetings and workshops held by GIZ, partnership leads and other consortium members.

#### Bi-weekly virtual meetings

Between January and December 2020, bi-weekly virtual meetings were held between GIZ, HOLETA, UNILV, UNIKAS and UNIGRA. The meetings were moderated and organized by GIZ and served for regular updates on activities and strategic planning of the partnership activities and concept. The responsibilities and agenda of the meetings included:

- GIZ: coordination of the partnership activities and lead the discussion concerning
  - member acquisition and network formation,
  - development of partnership aims, activities, and modalities for cooperation,
  - drafting and finalization of partnership agreements,
  - development of communication channels for the partnerships,
  - preparation of the signature ceremony during the SAMS Final Conference
- HOLETA: updates on activities and the coordination of partner acquisition for PS1

- UNILV, supported by UNIGRA: updates on activities and the coordination of partnership acquisition for PS2
- UNIKAS: updates on activities and the coordination of partner acquisition for PS3

## Virtual workshops

In August 2020, four virtual workshops were held. They served to finalize the partnership agreements and to solidify the aims, activities, and scope of work within the partnerships amongst the partnership steering board members. The workshops were attended by the SB members of each partnership and organized and moderated by GIZ.

- Workshop for PS1, held on August 18<sup>th</sup>, 2020
- Workshop for PS2, held on August 10<sup>th</sup> and 26<sup>th</sup>, 2020
- Workshop for PS3, held on August 14<sup>th</sup>, 2020

The workshops were successful, and their results were directly included in the Partnership Agreements. Results of the workshop included:

- Agreement on the overarching aim of all three partnerships
- Clarification and definition of an agreement on the aims of the partnerships
- Definition of the activities of each partnership based on the partnership aims and expertise and capacities of the SB members
- Development of a communication strategy for the partnerships – for communication within each partnership and amongst the partnerships
- Definition of minimum requirements and modalities for cooperation
- Agreement on representants and coordinators of each SB member
- Definition of the names of the partnerships

## 1.3 Promotion of the SAMS partnerships

In order to identify suitable partners, a strategy for the promotion of the SAMS partnerships was developed by GIZ and the partnership leads. This strategy included:

- Review of countries, stakeholders and organizations which were represented during Apimondia and similar apiculture events
- Promotion of the partnerships within the networks of the SAMS consortium and Advisory Boards, Extended Associated Partnerships and manufacturing partners
- Promotion of the partnerships during events, conferences and workshops, including SAMS capacity building events and business development events
- Promotion of the partnerships through the SAMS twitter account, the SAMS website, LinkedIn, and via flyers (see following sub-chapter)

In total, numerous stakeholders from more than 35 countries were informed about the SAMS partnerships. 69 individuals and organizations expressed interest in collaboration through one or several SAMS partnerships.

## Partnership application form

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The SAMS partnerships were promoted through an application form on the [SAMS website](#) (see Annex I). The application form served as contact sheet for organizations and individuals who were interested in collaborating. Applications for the partnerships were opened in December 2019. They were reviewed by the partnership leads in collaboration with GIZ for their suitability for the partnerships. In total, 69 applications were received from more than 35 countries by December 2020.

- PS1: Applications closed in September 2020
- PS2: Applications remained opened
- PS3: Applications closed in August 2020

Applications for PS1 and PS3 were closed early due to large numbers of suitable applications received within the first months and additional partners which were identified through the SAMS network. Many of these applicants and potential partners were suited for the planned partnerships and agreed to formalize the collaboration through a partnership agreement. Despite closure of the application forms, interested parties can directly contact the respective partnership leads to discuss collaboration. Contacts of the partnership leads can be found on the [SAMS website](#). Applications for PS2 remained opened in order to foster further growth of the partnerships' network. The aim is to attract more partners for collaboration on testing and mainstreaming of the SAMS DW and development of the SAMSwiki platform and community.

## Flyers

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Partnerships for cooperation within PS2 activities were promoted with flyers. These flyers were shared on social media platforms and in the networks of the SAMS consortium partners.

The flyer for the [SAMSwiki](#) platform aimed to attract [SAMSwiki members](#) (partners who want to create content and support the development of the SAMSwiki platform) in order to create an active [SAMSwiki community](#) of beekeeping professionals and enthusiasts. It included a short guide on how to create content on the platform. The aim is to support the development of the SAMSwiki platform in order to gather apiculture knowledge from around the world and stimulate mutual learning.

The flyer for the [SAMS Data Warehouse](#) aimed at promoting the technology and finding partners who were interested in connecting their bee colony monitoring devices to the DW.



Figure 1: SAMSwiki flyer (left) with guide for creating content on the SAMSwiki (middle) and the flyer for the SAMS DW.

## 1.4 Partners

Partners were defined as individuals or organizations who sign a partnership agreement. One partner can enter the partnership with several members. Each partnership aims at developing an international partnership network with stakeholders from all three target regions of the SAMS project. Therefore, stakeholders were primarily invited from the ASEAN countries as well as from the Sub-Saharan African and European regions. The following organizations and individuals were considered as partners:

- Professional beekeepers, bee breeders and beekeeping professionals (particularly those involved in the implementation of SAMS systems during project time)
- Start-ups and beekeeping related businesses, including SAMS businesses
- Researchers and scientists related to apiculture, data management, engineering and related fields – including researching institutions and universities
- Governmental institutions
- Beehive manufacturers
- Stakeholders from the honey value chain

## 1.5 Formalization of the partnerships

The partnerships were formalized through partnership agreements and a signature ceremony which was conducted during the Final Conference of SAMS on November 26<sup>th</sup>, 2020.

### 1.5.1 Partnership Agreements

For formalization of the partnerships, partnership agreements were developed and provided by GIZ and agreed on with the partnership leads. They define the terms of understanding between the partners and were created with the purpose to create a formal basis of collaboration. The partnership agreements aim to promote mutual understanding on the aims,

activities and context of the partnerships amongst all partners. Two different types of partnership agreements were developed:

- Declaration of Intent which was signed by the founding partners/ Steering Boards,
- and a Letter of Intent, which was signed by additional partners.

The partnership agreements were designed as simple agreements which are not legally binding. Nothing in the agreements shall be understood or constructed as binding right or obligation of the parties or as obligating the undersigning parties to finally conclude any agreement. In addition, they do not restrict the parties from pursuing similar activities on their own or from participating in similar activities with other parties. They can be terminated upon request through written notice at any time.

The process of developing and finalizing the agreements took around five months. It turned out to be not as easy as expected as regulations of individual institutions and country related regulations made it difficult to find common ground.

### Declarations of Intent (Dol)

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The Declarations of Intent were developed for and signed by the Steering Board (SB) members and founders of the partnerships. Main contacts persons for each partnership can be found on the [SAMS website](#).

Through signature of the Dol, the SB members endeavour to stimulate, coordinate and support activities, projects and communication within the partnership under the scope of the partnership aims and goals. They become operative on the day of signature and last until December 2024.

The Dol-Templates for each partnership can be found in the chapters 3.4, 4.4 and 5.4 of the respective partnerships.

### Letters of Intent (Lol)

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The Letters of Intent were developed for and signed by partners which are not part of the partnership steering board.

Through signature of the Lol, the partners endeavour to collaborate with the partnership network to promote the partnership aim and goals. The partners within the partnership network jointly decide on activities to foster the development of and research on SAMS services and technologies in the apiculture sector.

The Lol-Templates for each partnership can be found in the chapters 3.4, 4.4 and 5.4 of the respective partnerships.

## 1.5.2 Signature Ceremony

The partnerships were formally founded during a signature ceremony which was conducted during the Final Conference (FC) of the SAMS project, on November 26<sup>th</sup>, 2020. Due to Covid-19 travel and meeting restrictions, the conference was conducted as a fully virtual event and the partners could not meet in one room to complete the signatures of the Declarations of



Intent. Therefore, the three Dols were pre-signed by all founding members except for the partnership leads who signed the Dol's during the live-signature ceremony. During the signature ceremony the GIZ project coordinator introduced the three partnerships and partnership leads, who then signed the respective Declarations of Intent.

## 2. The SAMS partnership concept

In total, three partnerships were developed within the SAMS project, with stakeholders from the ASEAN region, Sub-Sahara Africa, the EU and beyond. This chapter describes the concept behind the three partnerships.

### 2.1 Structure of the Partnerships

Each partnership has a Steering Board which is composed of SAMS consortium members and appointed members of the SAMS Advisory board. The SB members signed the partnerships' Dol and incur in specific functions within the management structure of the partnerships. In addition to the Steering Boards, partners are invited to the partnerships. These partners signed the partnerships' Lol and endeavour to collaborate with the partnership network to promote the partnership aim and goals.

#### **PS1 - International Partnership on SAMS Business Development:**

- Steering Board: HOLETA (Ethiopia), UNPAD (Indonesia), The Local Enablers (Indonesia)
- Partners: beekeepers, apiculture start-ups, beehive manufacturers, researchers, NGO's and SAMS businesses from Indonesia, Ethiopia, and Germany

#### **PS2 - International Partnership on Bee Colony Data and Knowledge Exchange:**

- Steering Board: UNILV (Latvia), Labtek Indie (Indonesia), Dr. Robert Brodschneider (Austria)
- Partners: bee researchers, bee research centres, data researchers, apiculture start-ups working with ICT technologies and bee monitoring systems from Ethiopia, Indonesia, USA, and Australia.

#### **PS3 - International partnership on Apiculture Technology and Services:**

- Steering Board: Sascha Kirchner (Germany), Sascha Fiedler (Germany), HOLETA (Ethiopia), Labtek Indie (Indonesia)
- Partners: universities, research intuitions, beekeepers, and queen-breeders from Latvia, Romania, Germany, Indonesia, Ethiopia and Australia.

### 2.2 Aims of the partnerships

The SAMS international partnerships were developed for the means of sustaining the results and ideas developed between January 2018 and December 2020 within the SAMS project. The three partnerships were developed in the spirit of:

- maintaining and strengthening mutual contact amongst the SAMS consortium partners,
- promoting international networking and collaboration on modern and precision beekeeping and knowledge exchange within the apiculture sector and scientific society of the SAMS target regions and beyond,
- and sustaining, refining and disseminating SAMS products and ideas.

In order to achieve these overarching aims, the partnerships endeavour to facilitate access to the SAMS results, training, education and funding, and to stimulating regional economies and innovations. In addition to this overarching aim, each partnership has specific aims which are related to different fields of activity of the SAMS Project. The specific aims are further described in the respective partnership descriptions.

- **PS1 - International Partnership on SAMS Business Development:** promotion of business development in the apiculture sector and of the SAMS technology (Chapter 3)
- **PS2 - International Partnership on Bee Colony Data and Knowledge Exchange:** promoting research on bee-colony data and international knowledge exchange on bee-colonies, the SAMS system and beekeeping (Chapter 4)
- **PS3 - International partnership on Apiculture Technology and Services:** foster the development of and research on SAMS services and technologies in the apiculture sector (Chapter 5)

## 2.3 Activities of the partnerships

In order to achieve the above-mentioned aims, and to ensure long-term cooperation amongst the partnerships and within each partnership network, the SB members agreed on specific activities for the management of the partnerships and fostering of collaboration.

### Activities of the SB members

The activities of the SB members include stimulation and coordination of the partnership activities and communication, as well as support of activities and joint projects. Moreover, the Steering Boards of each partnership agreed on own activities to foster dissemination and to facilitate accessibility of the SAMS results and ideas. In addition, all SB members agreed to conduct own projects within the scope of the three partnerships. These activities include:

- PS1 – mentorship of SAMS businesses and apiculture businesses and promotion of CB activities
- PS2 – research in the field of SAMS data usability and management, and testing and mainstreaming of the SAMS Decision Support Service. Furthermore, development of the SAMSwiki platform and creation of a SAMSwiki community for long-term use of the platform.
- PS3 – research in the field of ICT for apiculture and testing and mainstreaming of the SAMS technology and services



## Activities of partners

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The partners within the three partnerships jointly decide on activities to support the partnership aims. Each new partner will discuss their role within the partnership and specific activities and projects with the Steering Board of the partnership that they are joining.

## 2.4 Resources and funding

The partnerships are founded as voluntary collaborations. As the partnerships start working after project end on December 2020, none of the partnerships is funded by the SAMS project. Funding of joint activities and projects may be gained through application to grants and funds. Funds may be found on the [SAMSwiki platform](#).

All partners agree to bear their own costs incurred with the modalities of the cooperation. This may include coordination purposes, such as administration, communication, meeting and travel.

## 2.5 Modalities for cooperation and communication

In order to ensure smooth communication within and between the partnerships, a communication strategy was developed. The communication strategy for all three partnerships foresees the use of the SAMS LinkedIn group for general communication and Email for specific communication.

### Appointed coordinators/ contact persons

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Each partner appoints a contact person or coordinator which will be responsible for ensuring smooth preparation of the joint activities and keeping alive of the flow of communication with the partnership network. Through signature of the partnership agreements (LoI), each partner agrees to share information and communicate regularly in order to agree on scope of work and to consult the progress of cooperation.

### General communication and updates: LinkedIn

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The [SAMS LinkedIn Group](#) was established for general communication, announcements and regular updates on the partnership activities. The group is used by all three SAMS partnerships as one common communication platform and is open to all members of the partnerships. All new partners are invited to join the SAMS LinkedIn Group. At this moment (16.12.2020) there are 51 members in the LinkedIn Group and the number is growing.

### Direct communication: Email

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Direct communication amongst the Steering Board members and with other partners, will be conducted via Email. Email communication may be used for internal coordination including:

- Clarifying responsibilities and scope of work
- Consulting on progress on the cooperation / joint activities
- Updates amongst the Steering Board members of the partnerships

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### Short “Newsletter”: Email / LinkedIn

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Every three months, a general overview over the partnerships’ activities shall be provided by the SAMS Steering Boards. The newsletter shall include a short summary of the activities within the partnerships. It is shared via Email and/ or through the common SAMS LinkedIn Group.

## 3. PS1 - International Partnership on SAMS Business Development

The purpose of the Partnership is to join forces for the aim of promoting business development in the apiculture sector and promotion of the SAMS technology for the benefit of beekeepers, start-ups, scientists and other stakeholders of the national and international apiculture and agriculture sectors.

### 3.1 Partners

By end of the SAMS project in December 2020, the *International Partnership on SAMS Business Development* had a total of 12 partners from 3 countries, including Ethiopia, Indonesia and Germany.

#### 3.1.1 Steering Board of PS1

Members of the partnerships Steering Board were part of the SAMS consortium and of the Advisory Board.

#### Holeta Bee Research Centre, Ethiopia

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[Holeta Bee Research Centre](#) (HOLETA) is represented by Dr. Zewdu Ararso and Kibebew Wakjira. It is a pioneer research centre that is mandated to conduct research in apiculture and related fields in Ethiopia.

During SAMS project time, HOLETA was one of the SAMS consortium members and in charge of the coordination and development of the [SAMS transfer studies](#) and partnerships. In addition, HOLETA was involved in the implementation and testing of [SAMS systems](#) and in the conduction of [SAMS capacity building activities](#) in Ethiopia.

Within the PS1 Steering Board, HOLETA is responsible for international cooperation between Ethiopia and Europe.

#### University Padjadjaran, Indonesia

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[Universitas Padjadjaran](#) (UNPAD) is represented by Dr. Rizky Abdullah and Dwi Purnomo. It is one of the largest universities in Indonesia and offers a wide range of learning opportunities in the fields of science, technology, health, economy, law, culture, arts and public welfare.

During SAMS project time, UNPAD was one of the SAMS consortium members and involved in the User Centred Design process of the SAMS development, as well as in the conduction of SAMS capacity building activities in Indonesia and responsible for business development. Furthermore, UNPAD was involved in the development of partnership networks in Indonesia.

Within the PS1 Steering Board, UNPAD will be in charge of research related to business and support business development.

### The Local Enablers, Indonesia

The [Local Enablers](#) is represented by Yeti Yuli Astuti, STP. and Taufik Ginanjar Danuwidjaja. The Local enablers is an inclusive ecosystem that is for the development of social entrepreneurship-based businesses. It is an axis of collaboration between pentahelix stakeholders, namely involving academics, government, communities, business and the media.

During SAMS project time, The Local Enablers was one of the Indonesian AB members and involved in business development events and business incubation. The Local Enablers also supported UNPAD in most of its activities within SAMS project.

Within the PS1 Steering Board, The Local Enablers will be the contact to Indonesian members of PS1, support business development and support pentahelix collaboration within the partnership.

### 3.1.2 Partners of PS1

Partners who joined the *International Partnership on SAMS Business Development* by December 2020, include beekeepers, apiculture start-ups, beehive manufacturers, researchers, NGO's and SAMS businesses from Indonesia, Ethiopia, and Germany. In total, 12 partners joined the partnership.

## 3.2 Aims

The partnership aims at promoting business development in the apiculture sector and promotion of the SAMS technology. Objectives include added value by mutual learning and fostering national and international trade of bee products, including support of apiculture businesses concerning marketing, understanding policy issues and business development. The partners endeavour to work together to promote the following partnership goals:

- Foster SAMS business development within the apiculture ecosystem through promotion of mutual support, learning and knowledge exchange on issues of business development and beekeeping
- Inspire and inform about the SAMS technology and disseminate technological solutions for bee management and bee health in Africa, Asia and the EU
- Sustain, further develop and disseminate SAMS business ideas and SAMS knowledge for the benefit of business development and technological advancement within the apiculture and agriculture sectors

- Foster networking and collaboration between national and international stakeholders of the apiculture sector and learn and work together with knowledgeable and experienced stakeholders

In addition, it aims at fostering the overarching aims (chapter 2.2) of all three partnerships by fostering networking and mutual learning with PS2 and PS3.

### 3.3 Activities

Activities of the partnership are based on the promotion of the development of SAMS businesses through active support of SAMS businesses, capacity building activities and knowledge exchange.

#### Activities of the PS1 Steering Board

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The members of the Partnership Steering Board, stimulate, coordinate and support activities, projects and communication within the partnership under the scope of the partnership aims and goals. In addition, their activities include:

- Support networking, communication and knowledge exchange amongst partners
- Disseminate knowledge on business development, SAMS businesses and the SAMS technology
- Support small apiculture businesses by providing specific knowledge on business development, marketing, SAMS businesses and SAMS results and ideas
- Promotion and scaling up of the SAMS system through the support of small businesses with the implementation of the hardware and software
- Actively monitor a LinkedIn Group as a networking and general communication platform for all members of the partnership: invite new partners to the group and regularly share information on activities and events

#### Activities of Partners

---

Partners of the PS1 network jointly develop, coordinate and implement activities to support their joint objectives to support their common objectives. Activities are as follows, but not limited to:

- Active support of activities conducted within the partnership network
- Support of research on beekeeping, local markets and business-related issues through sharing of knowledge and experiences with the partnership network

## 3.4 Partnership Agreements

### Declaration of Intent for PS1

Figure 2: Declaration of Intent for PS1, signed by the Steering Board members of PS1



# Declaration of Intent

for the

## International Partnership on Smart Apiculture Management Services Business Development

between

**Oromia Agricultural Research Institute Holeta Bee Research Centre**  
P.O. Box22  
Holeta Genet, Ethiopia  
*Represented by Zewdu Ararso (PhD)*

and

**University of Padjadjaran**  
DRPM Unpad, Gedung Rektorat Lt. 4  
Jalan Raya Bandung Sumedang Km. 21 Jatinangor  
Kab. Sumedang 45363, Indonesia  
*Represented by Rizky Abdullah, PhD., Apt.*

and

**Sacita Muda Indonesia Elaborasi (The Local Enablers)**  
Skyland Education Park, Rumah Kolaborasi The Local Enablers  
Jl. Raya Jatinangor No.1, Kec. Jatinangor,  
Kab. Sumedang 45363, Indonesia  
*Represented by Yeti Yuli Astuti, STP.*



This Declaration of Intent (hereinafter referred to as "Declaration") is written in the spirit of promoting international friendship and partnership to foster business development in the apiculture sector and promotion of the SAMS technology.

The Declaration defines the terms of understanding between Oromia Agricultural Research Institute Holeta Bee Research Centre ("HOLETA"), University of Padjadjaran ("UNPAD") and Sacita Muda Indonesia Elaborasi ("The Local Enablers"). They may be referred to individually as "Partner" and collectively as "Partners".

The Partners hereby express their interest to strengthen mutual contact to stimulate and support joint activities and projects within the International Partnership on Smart Apiculture Management Services (SAMS) Business Development (hereinafter referred to as "Partnership"). The three Partners herewith are founders of this Partnership and members of the Partnership Steering Board.

## Background

The International Partnership on SAMS Business Development was developed for the means of sustaining the results and ideas developed between January 2018 and December 2020 within the International Partnership on Smart Apiculture Management Services (SAMS) project. This project has received funding from the European Union's Horizon 2020 research and innovation program under the grant agreement No 780755.

*"The main rationale of the SAMS project is the development and refinement of an open source remote sensing technology and user interaction interface to support small beekeepers on two continents in managing and monitoring the health and level of productivity in their own bee colonies and beehives. It aims to pursue the UN Sustainable Development Goal (SDG N°2) 'End hunger, achieve food security and improved nutrition' and seeks to strengthen international cooperation on Information and Communication Technologies in low- and middle-income countries."*

It is one of three SAMS partnerships which were developed in the spirit of maintaining and strengthening mutual contact and promoting international collaboration and knowledge exchange within the apiculture sector and scientific society. They aim to foster modern and precision beekeeping and to sustain, refine and disseminate SAMS products and ideas.

## 1. Purpose and aim

The purpose of the Partnership is to join forces for the aim of promoting business development in the apiculture sector and promotion of the SAMS technology for the benefit of beekeepers, startups, scientists and other stakeholders of the national and international apiculture and agriculture sectors.

Therefore, the Partners endeavor to work together to promote the following partnership goals:

- a) Foster SAMS business development within the apiculture ecosystem through promotion of mutual support, learning and knowledge exchange on issues of business development and beekeeping
- b) Inspire and inform about the SAMS technology and disseminate technological solutions for bee management and bee health in Africa, Asia and the EU





- c) Sustain, further develop and disseminate SAMS business ideas and SAMS knowledge for the benefit of business development and technological advancement within the apiculture and agriculture sectors
- d) Foster networking and collaboration between national and international stakeholders of the apiculture sector and learn and work together with knowledgeable and experienced stakeholders

## 2. Joint Activities

The partners jointly develop, coordinate and implement activities to support their joint objectives to support their common objectives. The collaboration between the partners may focus on the following activities:

- a) Support networking, communication and knowledge exchange amongst partners
- b) Disseminate knowledge on business development, SAMS businesses and the SAMS technology
- c) Support small apiculture businesses by providing specific knowledge on business development, marketing, SAMS businesses and SAMS results and ideas
- d) Promotion and scaling up of the SAMS system through the support of small businesses with the implementation of the hardware and software
- e) Actively monitor a LinkedIn Group as a networking and general communication platform for all members of the partnership: invite new partners to the group and regularly share information on activities and events

As members of the Partnership Steering Board, the Partners will stimulate, coordinate and support activities, projects and communication within the Partnership under the scope of the partnership aims and goals.

Through this Declaration, the Partners intends to contribute according to their abilities. All activities may be implemented in accordance with their regulations and policies.

## 3. Modalities

The Partners will each appoint a Coordinator who will be responsible for ensuring the smooth preparation of the joint activities and keeping alive the flow of communication:

For HOLETA: Dr. Zewdu Ararso and Kibebew Wakjira

For UNPAD: Dr. Dwi Pumomo, STP., MT.

For The Local Enablers: Taufik G. Danuwidjaja, STP.

The Partners will share information and communicate regularly in order to agree on responsibilities and scope of work and to consult on the progress of the cooperation amongst



the Partnership Steering Board and with other partners. The Steering Board members will share monthly updates on their activities and achievements in written format.

#### 4. Resources

The parties agree to bear their own costs for coordination purposes, such as administration, communication, meetings and travel (where applicable) and for costs incurred with the modalities of the cooperation as set out above.

#### 5. Terms

Each party may terminate this Declaration of Intend at any time on request. The party requesting the termination will inform the other Partners at least six (6) weeks prior in a written notice of its intention to terminate the Declaration of Intend.

This Declaration of Intend becomes operative on the date of the last signature and runs until December 3<sup>rd</sup>, 2024.

#### 6. Amendment

This Declaration of Intend may only be amended in writing either by the exchange of letters between the two institutions or by signing an amending agreement. Such amendments, once approved by both parties, will form part of the Declaration of Intend.

#### 7. Non-binding nature

This Declaration of Intend is a simple agreement and not legally binding. Nothing in this Declaration of Intend shall be understood or construed as a binding right or obligation of the Parties or as obligating the undersigning Parties to finally conclude any agreement. In particular, this Declaration of Intend in no way restricts either Party from pursuing similar activities on its own or from participating in similar activities with other public or private agencies, organizations, and individuals and shall not provide exclusivity between the Parties in the scope of any cooperation, does not endorse a specific entity, does not create any rights in any person, and does not create any obligations for any third party. After SAMS project end on December 31<sup>st</sup> 2020, this partnership will act and exist independently. The European Commission will not assume ownership of any knowledge or results which may result from the partnership work.





Holeta Genet, \_\_\_\_\_

Signature \_\_\_\_\_

Oromia Agricultural Research Institute  
Holeta Bee Research Centre  
Dr. Zewdu Ararso

Bandung, \_\_\_\_\_

Signature \_\_\_\_\_

University of Padjadjaran  
Rizky Abdulah, PhD., Apt.

Bandung, \_\_\_\_\_

Signature \_\_\_\_\_

Sacita Muda Indonesia Elaborasi (The Local Enablers)  
Yeti Yuli Astuti, STP.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 780755.

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## Letter of Intent for PS1

Figure 3: Letter of Intent for PS1, signed by partners of PS1



# Letter of Intent

for cooperation within the

## International Partnership on Smart Apiculture Management Services Business Development

for

Name of partner / partner institution  
Address

Represented by name of representative

This Letter of Intent (hereinafter referred to as "Agreement") is written in the spirit of promoting partnership to foster business development in the apiculture sector and promotion of the SAMS technology.

The Agreement defines the terms of understanding and cooperation of name of partner / partner institution (hereinafter referred to as "Partner") within the International Partnership on SAMS Apiculture Management Services (SAMS) Business Development (hereinafter referred to as "Partnership").

### Background

The International Partnership on SAMS Business Development is one of three partnerships which were developed within the International Partnership on Smart Apiculture Management Services (SAMS) project. The project was conducted from January 2018 to December 2020 and has received funding from the European Union's Horizon 2020 research and innovation program under the grant agreement No 780755.

The three SAMS partnerships were jointly developed in the spirit of promoting international collaboration and knowledge exchange within the apiculture sector and scientific society to foster modern and precision beekeeping and to sustain, refine and disseminate SAMS products and ideas.



### 1. Purpose and aim

The International Partnership on SAMS Business Development aims to foster business development in the apiculture sector and promotion of the SAMS technology for the benefit of beekeepers, startups, scientists and other stakeholders of the national and international apiculture and agriculture sectors. This aim includes the following goals:

- a) Foster SAMS business development within the apiculture ecosystem through promotion of mutual support, learning and knowledge exchange on issues of business development and beekeeping
- b) Inspire and inform about the SAMS technology and disseminate technological solutions for bee management and bee health in Africa, Asia and the EU
- c) Sustain, further develop and disseminate SAMS business ideas and SAMS knowledge for the benefit of business development and technological advancement within the apiculture and agriculture sectors
- d) Foster networking and collaboration between national and international stakeholders of the apiculture sector and learn and work together with knowledgeable and experienced stakeholders

The purpose of this Agreement is to promote collaboration, mutual learning and knowledge exchange to support the Partnership aims and to provide access to the partnership network, SAMS technology and knowledge. The Partner endeavors to collaborate with the partnership network to promote the partnership aim and goals.

### 2. Joint Activities

The partners within the partnership network jointly decide on activities to foster business development in the apiculture sector and promotion of the SAMS technology. These activities may include:

- a) Active support of activities conducted within the partnership network
- b) And support of research on beekeeping, local markets and business-related issues through sharing of knowledge and experiences with the partnership network

Through this Agreement, the Partner intends to contribute according to his/her abilities. All activities may be implemented in accordance with his/her regulations and policies.

### 3. Modalities

The Partner will appoint a contact person and coordinator who will be responsible for ensuring the smooth preparation of the joint activities and keeping alive the flow of communication with the partnership network:

Please insert the name of the coordinator

The Partner will share information and communicate regularly in order to agree on scope of work and to consult on the progress of the cooperation.



#### 4. Resources

The Partner agrees to bear their own costs incurred with the modalities of the cooperation as set out above. This may include coordination purposes, such as administration, communication, meetings and travel (where applicable).

#### 5. Terms

The Agreement can be terminated upon request through a written notice.

#### 6. Non-binding nature

This Letter of Intent is a simple agreement and not legally binding. Nothing in this Agreement shall be understood or construed as a binding right or obligation of the Parties or as obligating the undersigning Parties to finally conclude any agreement. In particular, this Agreement in no way restricts either Party from pursuing similar activities on its own or from participating in similar activities with other public or private agencies, organizations, and individuals and shall not provide exclusivity between the Parties in the scope of any cooperation, does not endorse a specific entity, does not create any rights in any person, and does not create any obligations for any third party. After SAMS project end on December 31<sup>st</sup> 2020, this partnership will act and exist independently. The European Commission will not assume ownership of any knowledge or results which may result from the partnership work.

Place: please insert the place

Date: please insert the date

Signature: \_\_\_\_\_  
Name of representative  
Name of partner / partner institution



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 780755.

This document was written by the consortium of the SAMS project. The sole responsibility for the content lies in the authors. Neither GIZ nor any other consortium member will accept any liability at any time for any kind of damage or loss that might occur from referring to this document. Moreover, neither the European Commission nor the Agencies (or any person acting on their behalf) can be held responsible for the use made of the information provided in this document.

## 4. PS2 - International Partnership on Bee Colony Data and Knowledge Exchange

The purpose of the Partnership is to join forces for the aim of promoting research on bee-colony data and international knowledge exchange on bee-colonies, the SAMS system and beekeeping for the benefit of beekeepers, start-ups, scientists and other stakeholders of the national and international apiculture sector.

### 4.1 Partners

By end of the SAMS project in December 2020, the *International Partnership on Bee Colony Data and Knowledge Exchange* had 10 partners and a total of 113 members. The partners are from Africa (Ethiopia), USA, Europe (Germany, Austria, Latvia) and Indonesia.

#### 4.1.1 Steering Board of PS2

Members of the partnerships Steering Board were part of the SAMS consortium and of the Advisory Board.

##### Latvia University of Life Sciences and Technologies, Latvia

The [Latvia University of Life Science and Technologies](#) (UNILV) is represented by [Aleksējs Zacepins](#) and joined the partnership with 20 members from the Faculty of Information technologies. It is a multi-profile higher education and research institution and has a broad network with research institutions in Europe and worldwide partners.

During SAMS project time, UNILV was one of the SAMS consortium members and in charge of the development of the SAMS Decision Support System and connected Services – this also included development of the [SAMS Data Warehouse](#) and research on SAMS data management and utilization.

Within the PS2 Steering Board, UNILV will be in charge of hosting the SAMS Data Warehouse and assisting all interesting bodies in connecting bee colony monitoring hardware to the developed data warehouse.

##### Labtek Indie, Indonesia

[Labtek Indie](#) is represented by [Amanda Manggiasih Paramita](#) and joined the partnership with 7 members. Labtek Indie is an end-to-end product development agency.

During the SAMS project time, Labtek Indie was part of the Indonesian Advisory Board and active contributor to Indonesia's dissemination activities and UCD process.

Within the PS2 Steering Board, Labtek Indie will be a main contact person for partner beekeepers in Indonesia. They will support the sustainment of data streams after the project's ends as well as sustainment of SAMS knowledge related to monitoring systems to support the beekeeping sector in West Java.

## Dr. Robert Brodschneider, Austria

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[Dr. Robert Brodschneider](#) is a researcher at the Institute of Biology at the University of Graz, Austria. He works as researcher and biologist investigating various aspects of the honeybee and beekeeping, including colony losses.

During SAMS project time, Robert Brodschneider was part of the SAMS consortium through his work for the University of Graz. There, he worked on the development of the [SAMSwiki](#) platform, an open source data base for bee-related knowledge exchange.

Within the PS2 Steering Board, Robert Brodschneider will be in charge of searching for a new potential contributor for the [SAMSwiki](#) and evaluating the new [SAMSwiki](#) content.

### 4.1.2 Partners of PS2

Partners who joined the *International Partnership on Bee Colony Data and Knowledge Exchange* by December 2020 include bee researchers and research centres, data researchers, apiculture start-ups working with ICT technologies and bee monitoring systems (including SAMS businesses). Partners are from Ethiopia, Indonesia, USA, and Australia.

One main partner who will be involved in bee colony data research with UNILV is the [BeeXML Working Group](#), an Advisory Board member of the SAMS project. BeeXML is an international working group that aims at standardizing bee data. In addition, the SAMS consortium member and SB member of PS1 and PS3 [Holeta Bee Research Centre](#), is joining the partnership.

## 4.2 Aims

The partnership aims at promoting research on bee-colony data and international knowledge exchange on bee-colonies. Objectives include research on data management and utilization and on the usability of SAMS data for different user groups, as well as mainstreaming and further adaptation of the SAMS Decision Support Service and development of the SAMSwiki platform. The partners endeavour to work together to promote the following partnership goals:

- Refine and promote the SAMS Data Warehouse and open source remote sensing technology
- Conduct and support research on issues of bee -data management and utilization
- Educate on beekeeping and foster international knowledge exchange on beekeeping
- Foster networking and collaboration between national and international stakeholders of the apiculture sector to promote a growing international network of beekeeping experts

In addition, the partnership aims at fostering the overarching aims (chapter 2.2) of all three partnerships by fostering networking and mutual learning with PS1 and PS3.



### 4.3 Activities

Activities of PS2 are focused on two main fields of work:

- **The [SAMS Data Warehouse](#):** knowledge exchange and research on data management and utilization issues and mainstreaming of the SAMS Decision Support System (DSS) and DW, as well as support in accessing and using the SAMS Data Warehouse with your monitoring device
- **The [SAMSwiki](#):** knowledge exchange on issues of bees, bee health and bee productivity through SAMSwiki content creation and management as well as development of the platform. The partnership aims at developing a SAMSwiki community of content creators and developers of the platform in order to foster international knowledge exchange on beekeeping.

#### Activities of the PS2 Steering Board

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The members of the Partnership Steering Board, stimulate, coordinate and support activities, projects and communication within the partnership under the scope of the partnership aims and goals. In addition, their activities include:

- Conduct and foster research on bee-data management and utilization together with new ideas and data analysis models development
- Dissemination of the SAMS Data Warehouse technology
- Hosting of the SAMS Data Warehouse for its further usage and application
- Maintaining, reviewing, extending and promoting the SAMSwiki

#### Activities of the PS2 Partners

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Partners of the PS2 network jointly develop, coordinate and implement activities to support their joint objectives to support their common objectives. Activities of the PS2 partners are as follows, but not limited to:

- Connecting the own bee monitoring device to the SAMS data warehouse and providing insights in experiences, lessons learned, and knowledge gained through connectivity to the data warehouse
- Supporting research activities on bee colony data through sharing of SAMS monitoring data and contribute to the development of a new bee colony data analysis model
- Promoting the development of the [SAMSwiki](#) community
- Promoting the knowledge exchange within the partnership and development of [SAMSwiki](#) content by adding new content and supporting quality control of the platform

## 4.4 Partnership Agreements

### Declaration of Intent for PS2

Figure 4: Declaration of Intent for PS2, signed by the Steering Board members of PS2



# Declaration of Intent

for the

## International Partnership on Bee Colony Data and Knowledge Exchange

between

**Latvia University of Life Sciences and Technologies**  
2 Liela Street, Jelgava  
LV-3001, Latvia  
*Represented by Aleksejs Zacepins*

and

**Labtek Indie**  
Jl. Titiran no. 7, Bandung, West Java  
Indonesia  
*Represented by Amanda Manggiasih Paramita*

and

**Dr. Robert Brodschneider**  
University of Graz, Universitätsplatz 2  
8010 Graz, Austria





This Declaration of Intent (hereinafter referred to as "Declaration") is written in the spirit of promoting international friendship and partnership to foster research on bee-colony data and international knowledge exchange on bee- colonies, the SAMS system and beekeeping.

The Declaration defines the terms of understanding between Latvia University of Life Sciences and Technologies ("LLU"), Labtek Indie ("Labtek") and Dr. Robert Brodschneider. They may be referred to individually as "Partner" and collectively as "Partners".

The Partners hereby express their interest to strengthen mutual contact to stimulate and support joint activities and projects within the International Partnership on Bee Colony Data and Knowledge Exchange (hereinafter referred to as "Partnership"). The three Partners herewith are founders of this Partnership and members of the Partnerships Steering Board.

## Background

The International Partnership on Bee Colony Data and Knowledge Exchange was developed for the means of sustaining the results and ideas developed between January 2018 and December 2020 within the International Partnership on Smart Apiculture Management Services (SAMS) project. This project has received funding from the European Union's Horizon 2020 research and innovation program under the grant agreement No 780755.

*"The main rationale of the SAMS project is the development and refinement of an open source remote sensing technology and user interaction interface to support small beekeepers on two continents in managing and monitoring the health and level of productivity in their own bee colonies and beehives. It aims to pursue the UN Sustainable Development Goal (SDG N°2) 'End hunger, achieve food security and improved nutrition' and seeks to strengthen international cooperation on Information and Communication Technologies in low- and middle-income countries."*

It is one of three SAMS partnerships which were developed in the spirit of maintaining and strengthening mutual contact and promoting international collaboration and knowledge exchange within the apiculture sector and scientific society. They aim to foster modern and precision beekeeping and to sustain, refine and disseminate SAMS products and ideas.

## 1. Purpose

The purpose of the Partnership is to join forces for the aim of promoting research on bee-colony data and international knowledge exchange on bee- colonies, the SAMS system and beekeeping for the benefit of beekeepers, startups, scientists and other stakeholders of the national and international apiculture sector.

Therefore, the Partners endeavor to work together to promote the following partnership goals:

- a) Refine and promote the SAMS Data Warehouse and open source remote sensing technology
- b) Conduct and support research on issues of bee - data management and utilization
- c) Educate on beekeeping and foster international knowledge exchange on beekeeping

- d) Foster networking and collaboration between national and international stakeholders of the apiculture sector to promote a growing international network of beekeeping experts

## 2. Joint Activities

The partners jointly develop, coordinate and implement activities to support their joint objectives to support their common objectives. The collaboration between the partners may focus on the following activities:

- a) Conduct and foster research on issues of bee-data management and utilization: collect and analyze beekeeping data through the SAMS DW and develop new models for the identification of different bee colony states
- b) Dissemination of the SAMS DW technology and research findings through publishing of journals and conferences
- c) Hosting the SAMS DW and supporting the new connections of bee monitoring devices to the DW for the collection of bee-data and optimization of the DW technology
- d) Maintain, review, extend and promote the SAMSwiki: Promotion of the platform and support the development of a community of SAMSwiki administrators for the aim of ensuring quality content and dynamic knowledge exchange on beekeeping

As members of the Partnership Steering Board, the Partners will stimulate, coordinate and support activities, projects and communication within the Partnership under the scope of the partnership aims and goals.

Through this Declaration, the Partners intends to contribute according to their abilities. All activities may be implemented in accordance with their regulations and policies.

## 3. Modalities

The Partners will each appoint a Coordinator who will be responsible for ensuring the smooth preparation of the joint projects and keeping alive the flow of communication:

For LLU: Aleksejs Zacepins, Armands Kviesis, Vitalijs Komasilovs

For Labtek: Amanda Manggiasih Paramita

Robert Brodschneider

The Partners will share information and communicate regularly in order to agree on responsibilities and scope of work and to consult on the progress of the cooperation amongst the Partnership Steering Board and with other partners. They will share monthly updates on their activities and achievements in written format.

#### 4. Resources

The parties agree to bear their own costs for coordination purposes, such as administration, communication, meetings and travel (where applicable) and for costs incurred with the modalities of the cooperation as set out above.

#### 5. Terms

Each party may terminate this Declaration of Intent at any time on request. The party requesting the termination will inform the other Partners at least six (6) weeks prior in a written notice of its intention to terminate the Declaration of Intent.

This Declaration of Intent becomes operative on the date of the last signature and runs until December 3<sup>rd</sup>, 2024.

#### 6. Amendment

This Declaration of Intent may only be amended in writing either by the exchange of letters between the two institutions or by signing an amending agreement. Such amendments, once approved by both parties, will form part of the Declaration of Intent.

#### 7. Non-binding nature

This Declaration of Intent is a simple agreement and not legally binding. Nothing in this Declaration of Intent shall be understood or construed as a binding right or obligation of the Parties or as obligating the undersigning Parties to finally conclude any agreement. In particular, this Declaration of Intent in no way restricts either Party from pursuing similar activities on its own or from participating in similar activities with other public or private agencies, organizations, and individuals and shall not provide exclusivity between the Parties in the scope of any cooperation, does not endorse a specific entity, does not create any rights in any person, and does not create any obligations for any third party. After SAMS project end on December 31<sup>st</sup> 2020, this partnership will act and exist independently. The European Commission will not assume ownership of any knowledge or results which may result from the partnership work.

Jelgava, \_\_\_\_\_

Signature \_\_\_\_\_

Latvia University of Life Sciences and  
Technologies  
Aleksejs Zacepins

Bandung, \_\_\_\_\_

Signature \_\_\_\_\_

Labtek Indie  
Amanda Manggiasih Paramita

Graz, \_\_\_\_\_

Signature \_\_\_\_\_

Dr. Robert Brodschneider



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 780755.

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## Letter of Intent for PS2

Figure 5: Letter of Intent for PS2, signed by partners of PS2



# Letter of Intent

for cooperation within the

## International Partnership on Bee Colony Data and Knowledge Exchange

for

Name of partner / partner institution  
Address

Represented by name of representative

This Letter of Intent (hereinafter referred to as "Agreement") is written in the spirit of promoting partnership to foster research on bee-colony data and international knowledge exchange on bee-colonies, the SAMS system and beekeeping.

The Agreement defines the terms of understanding and cooperation of [name of partner/partner institution](#) (hereinafter referred to as "Partner") within the International Partnership on Bee Colony Data and Knowledge Exchange (hereinafter referred to as "Partnership").

### Background

The International Partnership on Bee Colony Data and Knowledge Exchange is one of three partnerships which were developed within the International Partnership on Smart Apiculture Management Services (SAMS) project. This project was conducted between January 2018 and December 2020 and has received funding from the European Union's Horizon 2020 research and innovation program under the grant agreement No 780755.

The three SAMS partnerships were jointly developed in the spirit of promoting international collaboration and knowledge exchange within the apiculture sector and scientific society to foster modern and precision beekeeping and to sustain, refine and disseminate SAMS products and ideas.





## 1. Purpose and aim

The International Partnership on Bee Colony Data and Knowledge Exchange aims to foster research on bee-colony data and international knowledge exchange on bee- colonies, the SAMS system and beekeeping for the benefit of beekeepers, startups, scientists and other stakeholders of the national and international apiculture and agriculture sectors. This aim includes the following goals:

- a) Refine and promote the SAMS Data Warehouse and open source remote sensing technology
- b) Conduct and support research on issues of bee - data management and utilization
- c) Educate on beekeeping and foster international knowledge exchange on beekeeping
- d) Foster networking and collaboration between national and international stakeholders of the apiculture sector to promote a growing international network of beekeeping experts

The purpose of this Agreement is to promote collaboration, mutual learning and knowledge exchange to support the Partnership aims and to provide access to the partnership network, SAMS technology and knowledge. The Partner endeavors to collaborate with the partnership network to promote the partnership aim and goals.

## 2. Joint Activities

The partners within the partnership network jointly decide on activities to foster research on bee colony data and international knowledge exchange on bee- colonies, the SAMS system and beekeeping. These activities may include:

- a) Connecting the own bee monitoring device to the SAMS Data Warehouse and providing insights in experiences, lessons learned, and knowledge gained through connectivity to the DW
- b) Support research activities on bee colony data through sharing of SAMS monitoring data and contribute to the development of a new bee colony data analysis model

Through this Agreement, the Partner intends to contribute according to his/her abilities. All activities may be implemented in accordance with his/her regulations and policies.

## 3. Modalities

The Partner will appoint a contact person and coordinator who will be responsible for ensuring the smooth preparation of the joint activities and keeping alive the flow of communication with the partnership network:

Please insert the name of the coordinator

The Partner will share information and communicate regularly in order to agree on scope of work and to consult on the progress of the cooperation.

#### 4. Resources

The Partner agrees to bear their own costs incurred with the modalities of the cooperation as set out above. This may include coordination purposes, such as administration, communication, meetings and travel (where applicable).

#### 5. Terms

The Agreement can be terminated upon request through a written notice.

#### 4. Non-binding nature

This Letter of Intent is a simple agreement and not legally binding. Nothing in this Agreement shall be understood or construed as a binding right or obligation of the Parties or as obligating the undersigning Parties to finally conclude any agreement. In particular, this Agreement in no way restricts either Party from pursuing similar activities on its own or from participating in similar activities with other public or private agencies, organizations, and individuals and shall not provide exclusivity between the Parties in the scope of any cooperation, does not endorse a specific entity, does not create any rights in any person, and does not create any obligations for any third party. After SAMS project end on December 31<sup>st</sup> 2020, this partnership will act and exist independently. The European Commission will not assume ownership of any knowledge or results which may result from the partnership work.

Place: please insert the place

Date: please insert the date

Signature: \_\_\_\_\_

Name of representative

Name of partner / partner institution



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 780755.

This document was written by the consortium of the SAMS project. The sole responsibility for the content lies in the authors. Neither GIZ nor any other consortium member will accept any liability at any time for any kind of damage or loss that might occur from referring to this document. Moreover, neither the European Commission nor the Agencies (or any person acting on their behalf) can be held responsible for the use made of the information provided in this document.

## 5. PS3 – International Partnership on Apiculture Technology and Services

The International Partnership on Apiculture Technology and Services aims to foster the development of and research on SAMS services and technologies in the apiculture sector for the benefit of beekeepers, start-ups, scientists and other stakeholders of the national and international apiculture and agriculture sectors.

### 5.1 Partners

By end of the SAMS project in December 2020, the International Partnership on Apiculture Technology and Services had a total of 8 partners who have been provided with a total of 16 HIVE systems for testing and implementation. The partners are from 6 countries, including Germany, Latvia, Romania, Ethiopia, Indonesia, and Australia. In addition, associated partners are members of the SAMS partnerships' LinkedIn Group.

#### 5.1.1 Steering Board of PS3

Members of the partnerships Steering Board were part of the SAMS consortium and of the Advisory Board.

##### Holeta Bee Research Centre, Ethiopia

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[Holeta Bee Research Centre](#) (HOLETA) is represented by Dr. Zewdu Ararso and Kibebew Wakjira. It is a pioneer research centre that is mandated to conduct research in apiculture and related fields in Ethiopia.

During SAMS project time, HOLETA was one of the SAMS consortium members and in charge of the coordination and development of the [SAMS transfer studies](#) and partnerships. In addition, HOLETA was involved in the implementation and testing of [SAMS systems](#) and in the conduction of [SAMS Capacity Building activities](#) in Ethiopia.

Within the PS3 Steering Board, HOLETA is responsible for international cooperation between Ethiopia and Europe.

##### Labtek Indie, Indonesia

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[Labtek Indie](#) is represented by [Amanda Manggiasih Paramita](#) and joined the partnership with 7 members. Labtek Indie is an end-to-end product development agency.

During the SAMS project time, Labtek Indie was part of the Indonesian Advisory Board and active contributor to Indonesia's dissemination activities and UCD process.

Within the PS3 Steering Board, Labtek Indie will be a main contact person for partner beekeepers in Indonesia. Within the PS3 Steering Board, Labtek Indie is responsible for supporting research on monitoring systems and ICT. They contribute through knowledge exchange and networking, sharing of insights on experiences and lessons learned, and



exchange on knowledge and experiences gained from implementing the SAMS system with the partnership network.

### Dr. Sascha Kirchner, Germany

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Dr. Sascha Kirchner is a scientific employee at the [University of Kassel](#). He works in the field of sensory monitoring of honeybees.

During SAMS project time, Sascha Kirchner was part of the SAMS consortium through his work for the University of Kassel. There, he worked on the development and implementation of the SAMS HIVE system and as lead of the development of PS3.

Within the PS3 Steering Board, Sascha Kirchner will be in charge of the coordination of collaboration within the partnership. He will analyse and evaluate the HIVE data from the partners and inform the partners regarding the evaluation results.

### Sascha Fiedler, Germany

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Sascha Fiedler is a scientific employee at the [University of Kassel](#). He works in the field of sensory monitoring of honeybees.

During SAMS project time, Sascha Fiedler was part of the SAMS consortium through his work for the University of Kassel. There, he worked on the development and implementation of the SAMS HIVE system.

Within the PS3 Steering Board, Sascha Fiedler is responsible for the analysis and evaluation of the partners' HIVE data and informs the partners about the evaluation results.

## 5.1.1 Partners of PS3

The partners within the partnership network include universities, research intuitions, beekeepers, and queen-breeders. The partners are professional and hobby beekeepers who are very tech-savvy and have accompanied the SAMS project with helpful hints for development and implementation. Some partners have large to very large beekeeping operations and breed honeybees in state associations. Furthermore, a software developer joined as a partner, who supported SAMS and the SAMS work during the project.

One main partner within PS3 is [Latvia University of Life Sciences and Technologies](#) (UNILV), member of the SAMS consortium and SB member of PS2. Within PS3, UNILV is involved in implementation and testing of the SAMS HIVE system.

## 5.2 Aims

The partnership aims to foster the development of and research on SAMS services and technologies in the apiculture sector. The partners endeavour to work together to promote the following partnership goals:

- Inspire and inform about the SAMS technology and disseminate technological solutions for bee management and bee health in Africa, Asia and the EU

- Develop solutions for small-hold beekeepers in managing and monitoring the health and level of productivity in their own bee colonies and beehives
- Research, refinement and promotion of the SAMS open-source remote sensing technology
- Promote networking and collaboration within a growing international network of beekeeping experts and stakeholders of the apiculture sector to learn and work together with knowledgeable and experienced stakeholders

In addition, it aims at fostering the overarching aims (chapter 2.2) of all three partnerships by fostering networking and mutual learning with PS2 and PS3.

### 5.3 Activities

Activities of the partnership are based on research on ICT for apiculture, as well as apiculture services, and mainstreaming of the SAMS HIVE system through user testing and evaluation.

#### Activities of the PS3 Steering Board

The Steering Board members inform each other about the latest activities and provide HIVE systems to partners of the partnership of implementation and testing. All HIVE systems are regularly supplied by the Steering Board partners with the latest software updates and in return receives data from their partners. The steering group analyses and evaluates the data and informs the partners regarding the evaluation results. Possible errors in the hardware and software are bundled and then incorporated into the upcoming updates.

The members of the Partnership Steering Board, stimulate, coordinate and support activities, projects and communication within the Partnership under the scope of the partnership aims and goals. In addition, their activities include:

- Support cooperation within the partnerships network and with beneficiaries of the SAMS open-source remote sensing technology to ensure maximum usability and mainstreaming of the SAMS systems
- Optimization of the SAMS open-source remote sensing technology
- Conduct research on bee-monitoring systems
- Collect information and lessons learned from users/ testers of the SAMS HIVE system
- Actively monitor a LinkedIn Group as a networking and general communication platform for all members of the partnership: invite new members to the group and regularly share information on activities and events

#### Activities of the PS3 Partners

Partners of the PS3 network jointly develop, coordinate and implement activities to support their joint objectives to support their common objectives. Activities of the PS2 partners are as follows, but not limited to:

- Support research on bee-management and health, services and ICT through knowledge exchange, networking and promotion of the system

- Implementation and testing of the SAMS HIVE system and sharing of insights on experiences, lessons learned, and knowledge gained from the SAMS HIVE system implementation.

## 5.4 Partnership Agreements

### Declaration of Intent for PS3

Figure 6: Declaration of Intent for PS3, signed by the Steering Board members of PS3



# Declaration of Intent

for the

## International Partnership on Apiculture Technology and Services

between

Oromia Agricultural Research Institute Holeta Bee Research Centre  
P.O. Box22  
Holeta Genet, Ethiopia  
*Represented by Zewdu Ararso (PhD)*

and

Labtek Indie  
Jl. Titiran no. 7, Bandung,  
West Java, Indonesia  
*Represented by Amanda Manggiasih Paramita*

and

**Dr. sc. agr. Sascha Kirchner**  
[Redacted Signature]

and

**Sascha Fiedler**  
Universität Kassel, Mönchebergstraße 19  
34125 Kassel, Federal Republic of Germany

This Declaration of Intent (hereby referred to as "Declaration") is written in the spirit of promoting international friendship and partnership to promote the development of and research on SAMS services and technologies in the apiculture sector.

The Declaration defines the terms of understanding between Oromia Agricultural Research Institute Holeta Bee Research Centre ("HOLETA"), Labtek Indie ("Labtek"), Dr. sc. agr. Sascha Kirchner, Mr. Sacha Fiedler. They may be referred to individually as "Partner" and collectively as "Partners".

The Partners hereby express their interest to strengthen mutual contact to stimulate and support joint activities and projects within the International Partnership on Apiculture Technology and Services (hereinafter referred to as "Partnership"). The three Partners herewith are founders of this Partnership and members of the Partnership Steering Board.

## Background

The International Partnership on Apiculture Technology and Services was developed for the means of sustaining the results and ideas developed between January 2018 and December 2020 within the International Partnership on Smart Apiculture Management Services (SAMS) project. This project has received funding from the European Union's Horizon 2020 research and innovation program under the grant agreement No 780755.

*"The main rationale of the SAMS project is the development and refinement of an open source remote sensing technology and user interaction interface to support small beekeepers on two continents in managing and monitoring the health and level of productivity in their own bee colonies and beehives. It aims to pursue the UN Sustainable Development Goal (SDG N°2) 'End hunger, achieve food security and improved nutrition' and seeks to strengthen international cooperation on Information and Communication Technologies in low- and middle-income countries."*

It is one of three SAMS partnerships which were developed in the spirit of maintaining and strengthening mutual contact and promoting international collaboration and knowledge exchange within the apiculture sector and scientific society. They aim to foster modern and precision beekeeping and to sustain, refine and disseminate SAMS products and ideas.

## 1. Purpose and aim

The purpose of the Partnership is to join forces for the aim of promoting the development of and research on SAMS services and technologies in the apiculture sector for the benefit of beekeepers, startups, scientists and other stakeholders of the national and international apiculture and agriculture sectors.

Therefore, the Partners endeavor to work together to promote the following partnership goals:

- a) Inspire and inform about the SAMS technology and disseminate technological solutions for bee management and bee health in Africa, Asia and the EU
- b) Develop solutions for small-hold beekeepers in managing and monitoring the health and level of productivity in their own bee colonies and beehives
- c) Research, refinement and promotion of the SAMS open source remote sensing technology

- d) Promote networking and collaboration within a growing international network of beekeeping experts and stakeholders of the apiculture sector to learn and work together with knowledgeable and experienced stakeholders

## 2. Joint Activities

The partners jointly develop, coordinate and implement activities to support their joint objectives to support their common objectives. The collaboration between the partners may focus on the following activities:

- a) Support cooperation within the partnerships network and with beneficiaries of the SAMS open source remote sensing technology to ensure maximum usability and mainstreaming of the SAMS systems
- b) Optimization of the SAMS open source remote sensing technology
- c) Conduct research on bee-monitoring systems
- d) Collect information and lessons learned from users / testers of the SAMS System
- e) Actively monitor a LinkedIn Group as a networking and general communication platform for all members of the partnership: invite new members to the group and regularly share information on activities and events

As members of the Partnership Steering Board, the Partners will stimulate, coordinate and support activities, projects and communication within the Partnership under the scope of the partnership aims and goals.

Through this Declaration, the Partners intends to contribute according to their abilities. All activities may be implemented in accordance with their regulations and policies.

## 3. Modalities

The Partners will each appoint a Coordinator who will be responsible for ensuring the smooth preparation of the joint activities and keeping alive the flow of communication:

For HOLETA: Dr. Zewdu Ararso and Kibebew Wakjira

For Labtek: Amanda Manggiasih Paramita

Dr. sc. agr. Sascha Fiedler

Mr. Sascha Kirchner

The Partners will share information and communicate regularly in order to agree on responsibilities and scope of work and to consult on the progress of the cooperation amongst the Partnership Steering Board and with other partners. They will share monthly updates on their activities and achievements in written format.



#### 4. Resources

The parties agree to bear their own costs for coordination purposes, such as administration, communication, meetings and travel (where applicable) and for costs incurred with the modalities of the cooperation as set out above.

#### 5. Terms

Each party may terminate this Declaration of Intent at any time on request. The party requesting the termination will inform the other Partners at least six (6) weeks prior in a written notice of its intention to terminate the Declaration of Intent.

This Declaration of Intent becomes operative on the date of the last signature and runs until December 3<sup>rd</sup>, 2024.

#### 6. Amendment

This Declaration of Intent may only be amended in writing either by the exchange of letters between the two institutions or by signing an amending agreement. Such amendments, once approved by both parties, will form part of the Declaration of Intent.

#### 7. Non-binding nature

This Declaration of Intent is a simple agreement and not legally binding. Nothing in this Declaration of Intent shall be understood or construed as a binding right or obligation of the Parties or as obligating the undersigning Parties to finally conclude any agreement. In particular, this Declaration of Intent in no way restricts either Party from pursuing similar activities on its own or from participating in similar activities with other public or private agencies, organizations, and individuals and shall not provide exclusivity between the Parties in the scope of any cooperation, does not endorse a specific entity, does not create any rights in any person, and does not create any obligations for any third party. After SAMS project end on December 31<sup>st</sup> 2020, this partnership will act and exist independently. The European Commission will not assume ownership of any knowledge or results which may result from the partnership work.

Holeta Genet, \_\_\_\_\_

Signature \_\_\_\_\_

Oromia Agricultural Research Institute  
Holeta Bee Research Centre  
Dr. Zwedu Ararsu



Bandung, \_\_\_\_\_

Signature \_\_\_\_\_

Labtek Indie  
Amanda Manggiasih Paramita

Witzenhausen, \_\_\_\_\_

Signature \_\_\_\_\_

Dr. sc. agr. Sascha Kirchner

Kassel, \_\_\_\_\_

Signature \_\_\_\_\_

Sascha Fiedler



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 780755.

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## Letter of Intent for PS3

Figure 7: Letter of Intent for PS3, signed by partners of PS3



# Letter of Intent

for cooperation within the

## International Partnership on Apiculture Technology and Services

for

Name of partner / partner institution  
Address

Represented by name of representative

This Letter of Intent (hereinafter referred to as "Agreement") is written in the spirit of promoting partnership to foster the development of and research on SAMS services and technologies in the apiculture sector.

The Agreement defines the terms of understanding and cooperation of name of partner/partner institution (hereinafter referred to as "partner") within the International Partnership on Apiculture Technology and Services (hereinafter referred to as "Partnership").

### Background

The International Partnership on Apiculture Technology and Services is one of three partnerships which were developed within the International Partnership on Smart Apiculture Management Services (SAMS) project. The project was conducted from January 2018 to December 2020 and has received funding from the European Union's Horizon 2020 research and innovation program under the grant agreement No 780755.

The three SAMS partnerships were jointly developed in the spirit of promoting international collaboration and knowledge exchange within the apiculture sector and scientific society to foster modern and precision beekeeping and to sustain, refine and disseminate SAMS products and ideas.

## 1. Purpose and aim

The International Partnership on Apiculture Technology and Services aims to foster the development of and research on SAMS services and technologies in the apiculture sector for the benefit of beekeepers, startups, scientists and other stakeholders of the national and international apiculture and agriculture sectors. This aim includes the following goals:

- a) Inspire and inform about the SAMS technology and disseminate technological solutions for bee management and bee health in Africa, Asia and the EU
- b) Develop solutions for small-hold beekeepers in managing and monitoring the health and level of productivity in their own bee colonies and beehives
- c) Research, refinement and promotion of the SAMS open source remote sensing technology
- d) Promote networking and collaboration within a growing international network of beekeeping experts and stakeholders of the apiculture sector to learn and work together with knowledgeable and experienced stakeholders

The purpose of this Agreement is to promote collaboration, mutual learning and knowledge exchange to support the Partnership aims and to provide access to the partnership network, SAMS technology and knowledge. The Partner endeavors to collaborate with the partnership network to promote the partnership aim and goals.

## 2. Joint Activities

The partners within the partnership network jointly decide on activities to foster the development of and research on SAMS services and technologies in the apiculture sector. These activities may include:

- a) Support research on bee-management and health, services and ICT through knowledge exchange, networking and promotion of the system
- b) Implementation and testing of the SAMS system and sharing of insights on experiences, lessons learned and knowledge gained from the SAMS system implementation

Through this Agreement, the Partner intends to contribute according to his/her abilities. All activities may be implemented in accordance with his/her regulations and policies.

## 3. Modalities

The Partner will appoint a contact person and coordinator who will be responsible for ensuring the smooth preparation of the joint activities and keeping alive the flow of communication with the partnership network:

[Please insert the name of the coordinator](#)

The Partner will share information and communicate regularly in order to agree on scope of work and to consult on the progress of the cooperation. He shall treat all provided SAMS materials with care and report any damages to the Partnership Steering Board.

#### 4. Resources

The Partner agrees to bear their own costs incurred with the modalities of the cooperation as set out above. This may include coordination purposes such as administration, communication, meetings and travel (where applicable).

#### 5. Terms

The Agreement can be terminated upon request through a written notice.

#### 6. Non-binding nature

This Letter of Intent is a simple agreement and not legally binding. Nothing in this Agreement shall be understood or construed as a binding right or obligation of the Parties or as obligating the undersigning Parties to finally conclude any agreement. In particular, this Agreement in no way restricts either Party from pursuing similar activities on its own or from participating in similar activities with other public or private agencies, organizations, and individuals and shall not provide exclusivity between the Parties in the scope of any cooperation, does not endorse a specific entity, does not create any rights in any person, and does not create any obligations for any third party. After SAMS project end on December 31<sup>st</sup> 2020, this partnership will act and exist independently. The European Commission will not assume ownership of any knowledge or results which may result from the partnership work.

Place: please insert the place

Date: please insert the date

Signature: \_\_\_\_\_  
Name of representative  
Name of partner / partner institution



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 780755.

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## Annex I Partnership application



About the Project ▾ Final Conference News Partnerships Material and Publications ▾ Videos Privacy It

### SAMS Partnerships

Join the SAMS family

Join us on [LinkedIn](#).

Contact us to stay up-to-date with the project and find a way to collaborate:

- be the first to get the news
- find forms of collaboration and actively participate in the SAMS project
- get access to the SAMS system and SAMS business ideas for your start-up idea
- become part of the SAMSwiki community and actively contribute to sharing content online

Apply in a few easy steps and become a member of the international partnership network of SAMS – Smart Apiculture Management Services, funded by the European Union's Horizon 2020 research and innovation program within the H2020-ICT-39-2016-2017 call.

*"The main rationale of the SAMS project is the development and refinement of an open source remote sensing technology and user interaction interface to support small beekeepers in Asia and Africa in managing and monitoring the health and level of productivity in their own bee colonies and beehives. It aims to pursue the UN Sustainable Development Goal (SDG N°2) 'End hunger, achieve food security and improved nutrition' and seeks to strengthen international cooperation on Information and Communication Technologies in low- and middle-income countries."*

To ensure long-term impact of the project achievements, SAMS is establishing three international partnership networks in the spirit of promoting international collaboration and knowledge exchange within the apiculture sector and scientific society. The partnerships aim to foster modern and precision beekeeping and to sustain, refine and disseminate SAMS products and ideas with the objective to support small-hold beekeepers in managing bee health and bee productivity.

#### **PS1: International Partnership on SAMS Business Development (Application is closed)**

If you want to know more about the partnership or become a member please contact the lead from Holeta – Kibebew Wakjira – [wkibebew@gmail.com](mailto:wkibebew@gmail.com) – directly.

The partnership aims to foster business development in the apiculture sector and to promote the SAMS technology. Activities will focus on supporting apiculture business development through mutual learning and knowledge exchange on issues of modern and precision beekeeping as well as on trade and marketing of SAMS products.

**Partners:** beekeepers, modern beekeeping startups and SAMS startups, scientists, NGOs and other stakeholders from the beekeeping and business sectors

**Partnership Steering Board:** Holeta Bee Research Centre (Ethiopia), The Local Enablers and University of Padjadjaran (Indonesia)

**Main contact persons are:** Kibebew Wakjira / [wkibebew@gmail.com](mailto:wkibebew@gmail.com) (Ethiopia) and Dwi Purnomo / [dwi.purnomo@unpad.ac.id](mailto:dwi.purnomo@unpad.ac.id) (Indonesia)

#### **PS2: International Partnership on Bee Colony Data and Knowledge Exchange**

The partnership aims to foster research on bee colony data and international knowledge exchange on bee colonies, the SAMS system and beekeeping. Activities will focus on (1) data research and mainstreaming of the **SAMS Data Warehouse (DW)**, and on (2) development of the **SAMSwiki** platform:

- **SAMS DW:** knowledge exchange and research on data management and utilization issues and mainstreaming of the SAMS Decision Support System (DSS) and DW, as well as support in accessing and using the SAMS Data Warehouse with your monitoring device
- **SAMSwiki:** knowledge exchange on issues of bees, bee health and bee productivity through SAMSwiki content creation and management as well as development of the platform. To foster international knowledge exchange on beekeeping, the partnership is developing a **SAMSwiki Community**.

**Partners:** beekeepers, modern beekeeping and data management startups, researchers, data management associations

**Partnership Steering Board:** Latvia University of Life Sciences and Technology (Latvia), Labtek Indie (Indonesia), Dr. Robert Brodschneider (Austria)

**Main contact persons are:** Aleksejs Zacepins / [aleksejs.zacepins@llu.lv](mailto:aleksejs.zacepins@llu.lv) (SAMS Data Warehouse) and Robert Brodschneider / [robert.brodschneider@uni-graz.at](mailto:robert.brodschneider@uni-graz.at) (SamsWiki)



### **PS3: International Partnership on Apiculture Technologies and Services (Application is closed)**

If you want to know more about the partnership or become a member please contact the lead from the University Kassel- Sascha Kirchner – [sascha.kirchner@uni-kassel.de](mailto:sascha.kirchner@uni-kassel.de) – directly.

The partnership aims to promote the development of and research on SAMS services and technologies in the apiculture sector. Activities will focus on testing of the SAMS device for the optimization of bee-management, queen breeding and the HIVE system based on User Centered Design principles. Moreover, it focusses on gaining knowledge and understanding of bee behavior and health.

**Partners:** beekeepers, bee breeders, startups interested in technology, researchers

**Partnership Steering Board:** Holeta Bee Research Centre (Ethiopia), Labtek Indie (Indonesia), Dr. Sascha Kirchner and Sascha Fiedler (Germany)

**Main contact persons are:** Sascha Kirchner / [sascha.kirchner@uni-kassel.de](mailto:sascha.kirchner@uni-kassel.de) (EU), Amanda Paramita / [mita@labtekindie.com](mailto:mita@labtekindie.com) and Kibebew Wakjira / [wkibebew@gmail.com](mailto:wkibebew@gmail.com) (Ethiopia)

To apply for a partnership and stay informed about the project, please contact us through this form.

\* required fields

Tell us about yourself: \*

☐ Mr. ☐ Ms.

First name

Last name

Your country

Email: \*

Email

Confirm Email

Phone:

Who are you applying for? \*

Private applicant ▼

If you are applying for a company, please tell us about it:

Company Name

Company Description

Website Url

In Business since

Company Address

Country

Are you interested in:

- ☐ Track the project development (silent partnership)
- ☐ Receive the Newsletter
- ☐ Become member of PS2: International Partnership on Data Management and Utilization - Activity 1 Data Warehouse



☐ Become member of PS2: International Partnership on Data Management and Utilization – Activity 2 SAMSwiki

Please select the option(s) that best describe the type of partner relationship you are interested in establishing with the SAMS project

How do you want to contribute to the selected partnership?

How did you know about SAMS? \*

- ☐ I am in contact with a SAMS Partner
- ☐ Through Twitter / the website
- ☐ Through an event / conference
- ☐ Other

If you are in contact with a SAMS Partner, with whom?

Please specify if your answer was "event/conference" or "other":

Paragraph Text

Data protection \*

- ☐ I hereby confirm my consent to the SAMS project partners to collect, process and store my personal data (Name, Organisation, Function, Country, E-mail address) exclusively for the purpose of the SAMS project.
- ☐ SAMS project partners are authorised to forward my data (name, organization, contact details, video and photo material) to the following organizations/ entities for further processing: SAMS Consortium and European Commission
- ☐ I consent to my personal data (name, organization, contact details, video and photo material) being stored for a period of 10 years duration. The GIZ GmbH can contact me for the purpose of further use.
- ☐ I know, that I can withdraw from this agreement at any times by sending an email to the project partner GIZ.

Contact to the project partners can be found unter <https://sams-project.eu/partners>. Further information on data protection can be found on: <https://sams-project.eu/cookie-policy/> You have the right to inquire at any time about the type of data processing, and to have the data corrected if they are incorrect, or to demand that their processing be restricted or that the data be deleted. Furthermore, you may withdraw your consent at any time to use of the photos and recordings. Please email withdrawal of your consent to [stefanie.schaedlich@giz.de](mailto:stefanie.schaedlich@giz.de). This does not affect the lawfulness of any processing of your data before your consent was withdrawn. If you believe the data processing to be unlawful, you may contact GIZ data protection officer ([datenschutzbeauftragter@giz.de](mailto:datenschutzbeauftragter@giz.de)), or lodge complaint with the responsible data protection authorities (DPA) - the authority responsible is the European Data Protection Supervisor (EDPS).

Send the application

Data protection:

We securely store your data until the end of the SAMS project by March 2021.

We respect your trust and protect your privacy, and therefore will never sell or share your data with any third parties.

For more information: <https://sams-project.eu/cookie-policy/>



**Project website:** [www.sams-project.eu](http://www.sams-project.eu)

**Project Coordinator contact:**

Stefanie Schädlich  
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH  
Wielinger Straße 52  
82340 Feldafing, Germany  
[stefanie.schaedlich@giz.de](mailto:stefanie.schaedlich@giz.de)



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