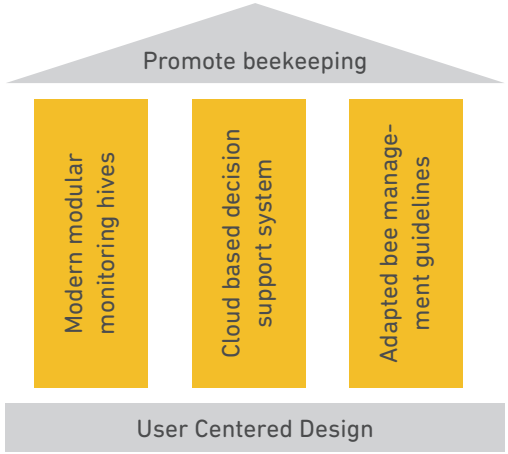
What is the concept behind SAMS?

Driven by the User Centered Design SAMS is an apiary management service based on three pillars:

- Development of modern modular monitoring hives adapted to the local context
- Development of a cloud based decision support system (DSS) to implement a management advisory service for the beekeepers
- Development of adapted bee management guidelines based on an ICT concept



Who are the targets and users of SAMS?

Depending on the local context, the user needs and requirements the SAMS project team identified the following groups as potential targets and users:

- Existing and potential beekeepers
- Cooperatives and Associations
- Urban Beekeeper and Early Digital Adopters
- Agripreneurs and Start ups
- Training Centre's and Extension services
- Research Institutes and Government Agencies
- Apiculture Input Suppliers
- Trader, distributer, retail, consumer

Imprint

The following document has been issued by the partners of the consortium formed for the implementation of the SAMS project under the Grant Agreement N° 780755

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Coordinator

Stefanie Schädlich
Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH
Wielinger Str. 52
82340 Feldafing

T +49 8157 938 133
M +49 160 9054 6647
E stefanie.schaedlich@giz.de
I www.giz.de

Picture Credits
P.1 EU, P. 2 GIZ, P.3 GIZ, P.5 GIZ

Status
November 2019

The consortium is responsible for the content of the publication.
The project is carried out on behalf of the European Commission.

https://sams-project.eu/

german cooperation DEUTSCHE ZUSAMMENARBEIT

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

SAMS

International Partnership on Innovation

Smart Apiculture Management Services

HORIZON 2020

About SAMS

SAMS is a three-year project supported by the European Union's Horizon 2020 research and innovation program and started in January 2018.

What is SAMS?

SAMS is an appropriate and adapted ICT solution...

- that allows active monitoring and remote sensing of bee colonies, which helps to ensure bee health and bee productivity
- which gives answers to the requirements of beekeeping in different contexts and countries
- which is available as an open source technology

Why do we need SAMS?

Bees play a key role in the preservation of our ecosystem, the global fight against hunger and in ensuring our existence. Digital tools might contribute to ensure a better management of bees and enhance their resilience to various external factors.

Three continents - three scenarios

(1) **Africa - Ethiopia:** Beekeepers have a limited access to modern beehive equipment and bee management systems and the apicultural sector is far behind his potential.

(2) **Asia - Indonesia:** A weak beekeeper rate, a low rate of professional processing, support and marketing lead to a slow development of the apicultural sector.

(3) **Europe:** Consumption and trading of honey products are increasing whereas the production is stagnating and pollination services are less developed.

SAMS Objectives

- Strengthen international cooperation of the EU with developing countries in ICT
- Promote and advance forms of existing beekeeping
- Monitor bee colonies in Germany, Ethiopia and Indonesia through an open source technology
- Evaluate gained information and convert them into recommendations for beekeepers
- Overcome country-specific challenges of beekeeping and simplify the management of bee colonies
- Gain information on bee mortality

Results and expected impact of SAMS

- Higher rate of organization of beekeepers to increase the impact
- Interconnection with stakeholders along the value chain
- Create jobs along the whole value chain of honey
- New and open trade regulations
- Easy to use and access to services/ tools to make beekeeping more efficient

SAMS results are of major interest for stakeholders along the whole value chain of honey production. By cooperation with other networks, SAMS technology will be promoted worldwide to beekeepers as well as to data beneficiaries.

Project Budget

The project budget for the implementation of SAMS is 1.99 Mio EUR.

SAMS Project Team

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

GIZ – Deutsche Gesellschaft für internationale Zusammenarbeit (GIZ) GmbH, Germany

UNIKASSEL VERSITÄT

University of Kassel, Germany

Latvia University of Life Sciences and Technologies

Latvia University of Life Sciences and Technologies, Latvia

KARL-FRANZENS-UNIVERSITÄT GRAZ
UNIVERSITY OF GRAZ
UNI GRAZ

University of Graz (Institute for Biology), Austria

unpad

University Padjadjaran, Indonesia

PRIMARY TRAINING & CONSULTING

CV. Primary Indonesia, Indonesia

IQQO Oromia Agricultural Research Institute

Oromia Agricultural Research Institute, Holeta Bee Research Center, Ethiopia

iceaddis

ICEADDIS – IT-Consultancy PLC, Ethiopia