

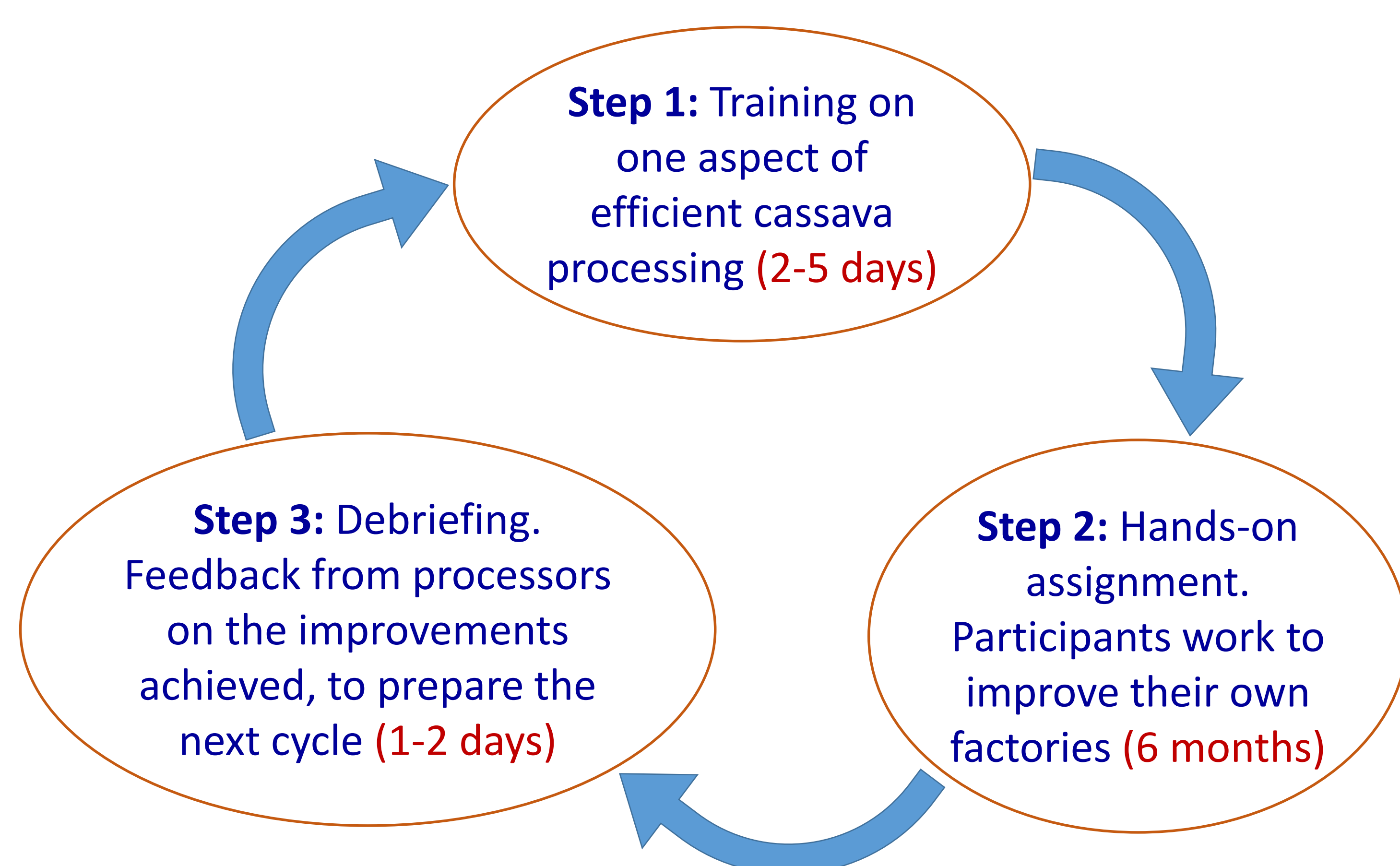
# Continuous improvement of cassava processing through yearly capacity building cycles

## DESCRIPTION OF APPROACH FOR SCALING

Capacity building for cassava processing, in particular for small-scale processors, will increase product quality and safety of operations, and minimize production costs and environmental footprint. As a result, the cassava industry will expand in a more sustainable manner, which is critical to meet the food needs of growing populations worldwide (9-10 billion people projected by 2050).

The RTB project on *Post-harvest processing* has investigated various aspects of cassava processing, and will continue to do so in the coming years: Analysis of cost structure, factors determining product quality, energy efficiency, use of by-products, etc.

We propose to scale out these research outputs through capacity building curriculums organized as follows:



## EVIDENCE OF EFFICACY

The approach has proved effective for cassava starch factories in Thailand:

- Year-on-year efficiency improvements of 1-2% since 2013.
- 20 to 40 factories participate each year, i.e. 25-50% of the total starch production capacity of the country.
- The compounded improvements over several years contribute to the technical know-how of factory personnel and to the sustainability of the cassava industry as a whole.

## INTERMEDIATE USERS & STAKEHOLDERS

Cassava processors are the main users of the capacity building approach. They are involved at every step of the training, to select the aspects of the process to improve in priority; to carry out and assess the improvements at their own factories; and to share feedback on what they have learnt.

Local universities and NGOs will be involved to organize the training and debriefing sessions (Steps 1 and 3), and to support the participants during factory improvements (Step 2).

Financial support from government agencies and other funding sources can increase the effectiveness of the approach, by enabling more processors to participate.

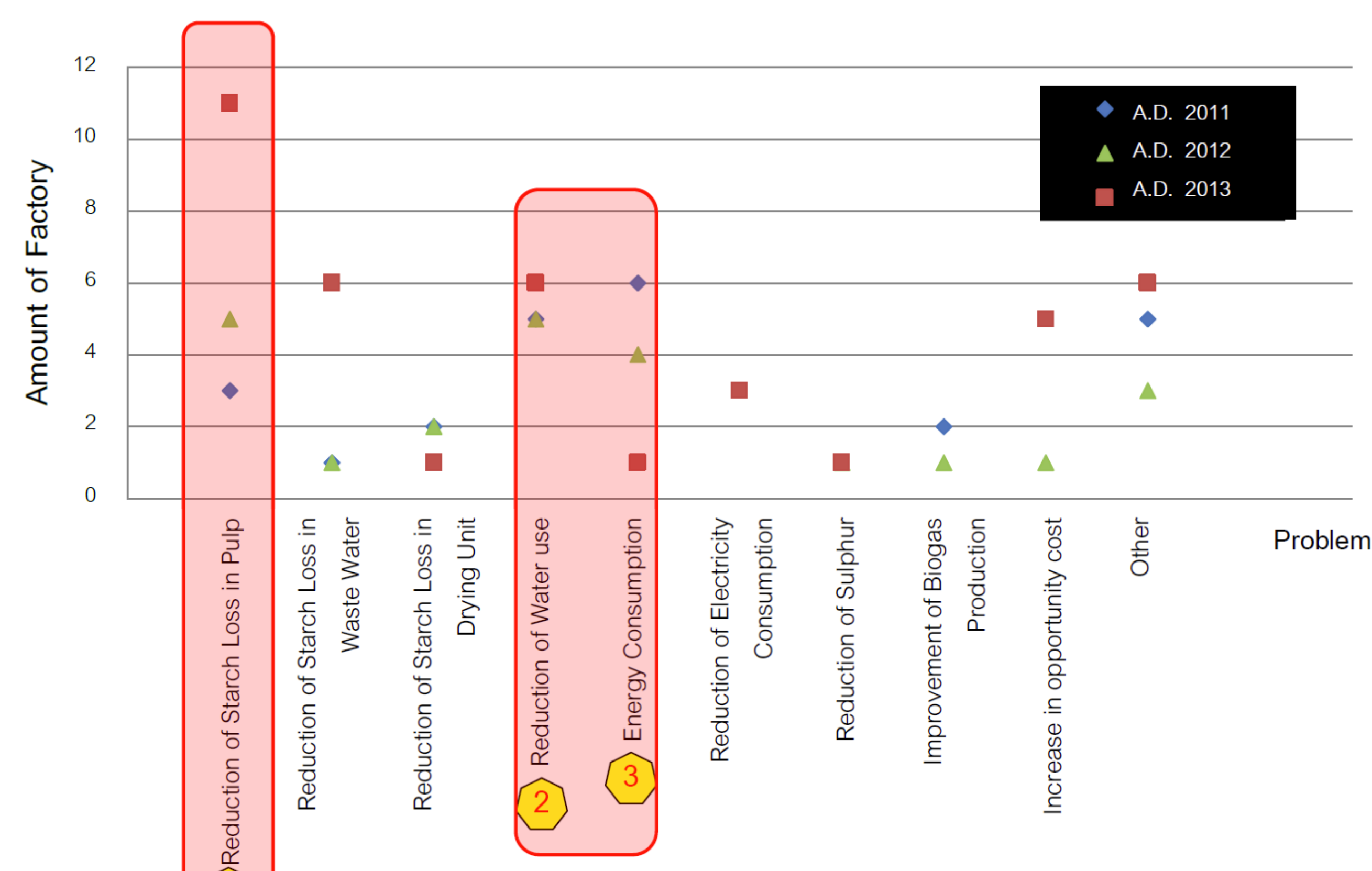
## MAIN STAGES

The curriculum is organized as **yearly training cycles**, focusing on improving a specific aspect of cassava processing. Each cycle is divided into three steps:

**Step 1:** An **initial workshop (2-5 days)** provides “Basic engineering knowledge” of efficient cassava processing, and defines priority aspects to improve, according to the inputs of the participants on the issues they face.

**Step 2:** **Hands-on assignment (6 months)**: The participants go back to their factories and carry-out the target improvement defined in step 1.

**Step 3:** **Debriefing (1-2 days)**: Participants assess the improvements using quantitative key performance index (KPI), e.g. production cost, % reduced losses, energy use. Feedback from participants is used to select further interventions for the next training cycle.



Main issues reported by processors to improve cassava processing during 3 training cycles (Thailand)

## CRITICAL GAPS AND NEXT STEPS

We propose to test the approach with two pilot groups who have expressed their needs for more efficient cassava processing, as well as quality and safety management :

- **Sour starch in Colombia.**
- **HQCF in Nigeria.**

Building on these experiences, scaling out to other products (e.g. gari) can follow through partnerships with local universities, NGOs and government agencies.

A sustainable business model to organize the trainings is needed, drawing on private or public-private funds, in order to maximize participation and effectiveness. The success of the approach also depends on establishing a network of trainers to organize and deliver the capacity building sessions.

