



May 28, 2024

**Announcing a collaborative agreement regarding the development of
used diaper converting technology.**

ZUIKO Corporation is excited to announce its collaborative agreement with Takeei Corporation (www.takeei.co.jp/en), Soma city (www.city.soma.fukushima.jp/index.html), and Yamagata University (www.yamagata-u.ac.jp/jp/), to advance the development of recycling used diapers. The official signing ceremony was held May 27, 2024.

In aging societies like Japan, the number and volume of used diapers have increased in recent years. Local governments are challenged with the collection and incineration of used diapers creating an environmental and sanitary burden at disposal sites. Plastics including superabsorbent polymers, and human excrement make recycling diapers a tremendous challenge.

Takeei Corporation is currently planning an environment complex called "Soma Circular Park." In collaboration with the city of Soma, various businesses, and universities, the park aims to utilize waste derived resources and help realize a decarbonized society.

ZUIKO Corporation, a leader and global manufacturer of production machines for disposable hygiene products like diapers and sanitary napkins, ZUIKO also develops and sells equipment that converts used disposable diapers into fuel.

Yamagata University, a leading Japanese university with research capabilities and experience in identifying and contributing solutions to issues related to the recycling of various types of waste.



Soma City will be home to the agreed pilot project. Takeei, Yamagata University, and ZUIKO will build, conduct research, and promote the diaper recycling technology. The site will comprehensively demonstrate real-world conditions and help identify issues related to using used diapers as fuel and for its future commercialization. The data collected will aid in the research and future establishment of operations for difficult-to-recycle plastics and combustible waste.

The project aims to promote a recycling oriented and decarbonized society by transforming difficult-to-process waste into recyclable resources. Collecting diaper waste, converting it into fuel by private businesses, and evaluating the resulting data by university academics is a step in this endeavor.

Goals of the agreement:

1. Demonstrate and confirm the processes and conditions of converting used disposable diapers into fuel by building and implementing a comprehensive system of collecting, converting, and examples for its use as a fuel.
2. Provide a proof of concept and collect data to identify issues for commercialization.

Summary of the agreement:

1. Provide raw materials needed for demonstration.
2. Provide equipment for demonstration.
3. Sharing of data obtained through the demonstration.
4. Evaluation and verification of results.
5. Provide services related to the proof of concept.
6. Cooperation on the above items by the parties in agreement.



Related Parties (in alphabetical order)	Responsibilities
Soma City	Providing used diapers from the city's public hospitals.
Takeei Corporation	Collection of used diapers from Soma City and operation of the used diaper-to-fuel converting system.
Yamagata University	Research and study of issues related to the recycling of used diapers (i.e., sterilization, odor, etc.)
ZUIKO Corporation	Development and provision of the processing equipment to convert used diapers into fuel.



Photo at signing ceremony

From left: Mitsutoshi Kuroda, Yamagata University, Yonezawa Campus Director

Mitsuo Abe, CEO, Takeei Corporation

Hidekiyo Tachiya, Soma City Mayor

Toyoshi Umebayashi, President & CEO, ZUIKO Corporation