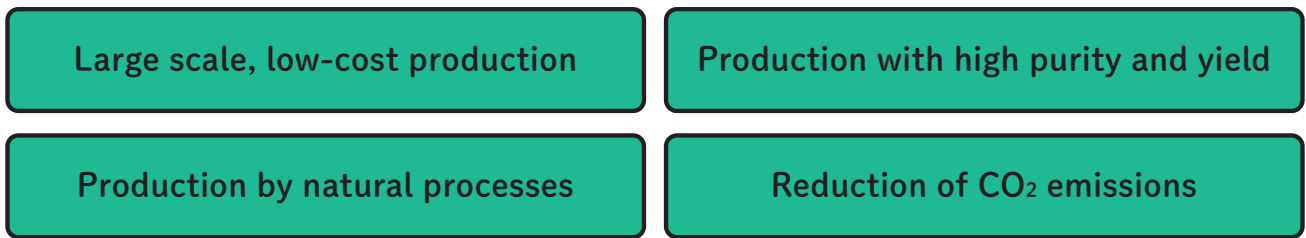**Developing Novel Enzymes**

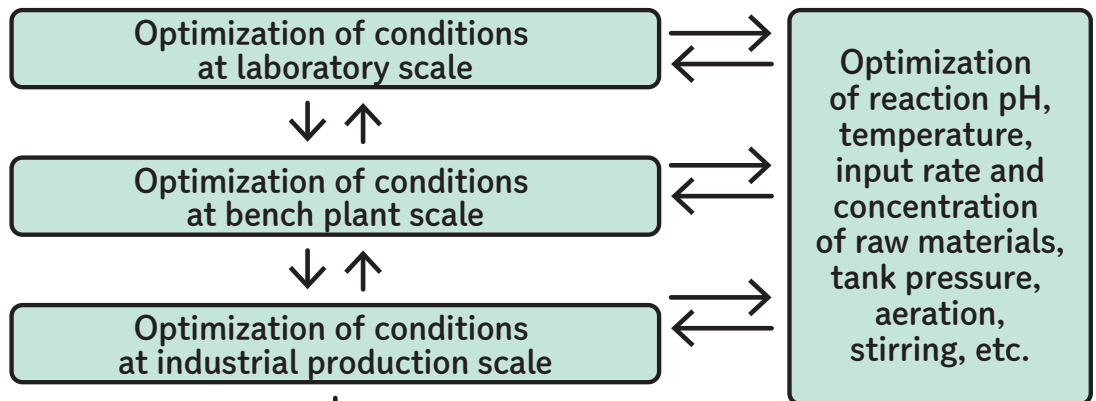# Developing enzyme reaction processes

Benefits

By bringing out the maximum potential
of the enzymes,
We can construct efficient processes.

By identifying and controlling
the important factors in scale-up,
We can construct robust industrial processes.

↓

Large scale, low-cost production	Production with high purity and yield
Production by natural processes	Reduction of CO_2 emissions

Our Technology

Optimization of conditions
at laboratory scale

↓ ↑

Optimization of conditions
at bench plant scale

↓ ↑

Optimization of conditions
at industrial production scale

↓

Industrial production

Optimization
of reaction pH,
temperature,
input rate and
concentration
of raw materials,
tank pressure,
aeration,
stirring, etc.

+ Consideration for quality, cost, regulations, and religious needs