



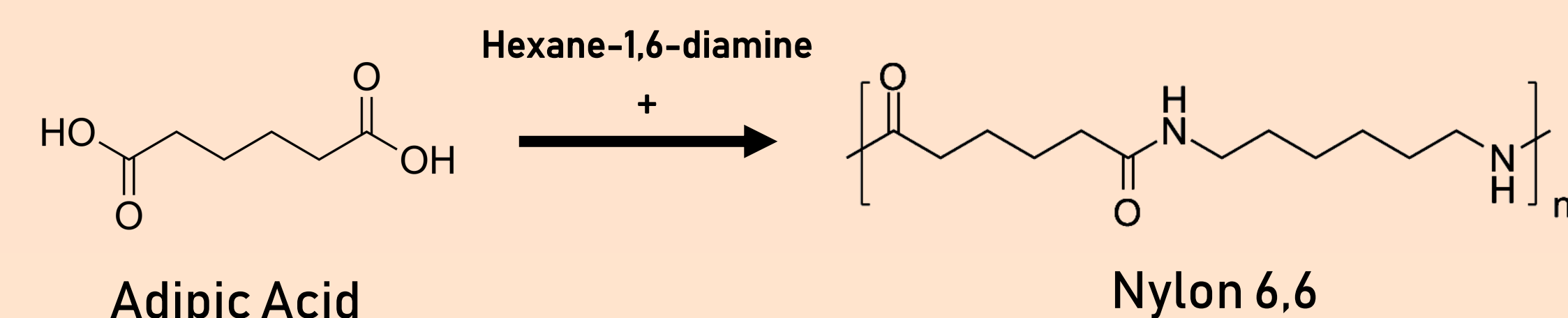
# A Disruptive Initiative: Bio-Based Production of Adipic Acid

Conrad Inch, Nabil Ali-Mohmad, Glen Aggiss, Edward Wen, Dana Mraz, Alvin Cheung, Tatjana Stone, Ngai To Lo  
Department of Chemical and Biological Engineering, The University of British Columbia

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## Introduction

**Goal:** To develop a bio-based adipic acid process capable of capturing 1% of the current global adipic acid market



## Mass Balance

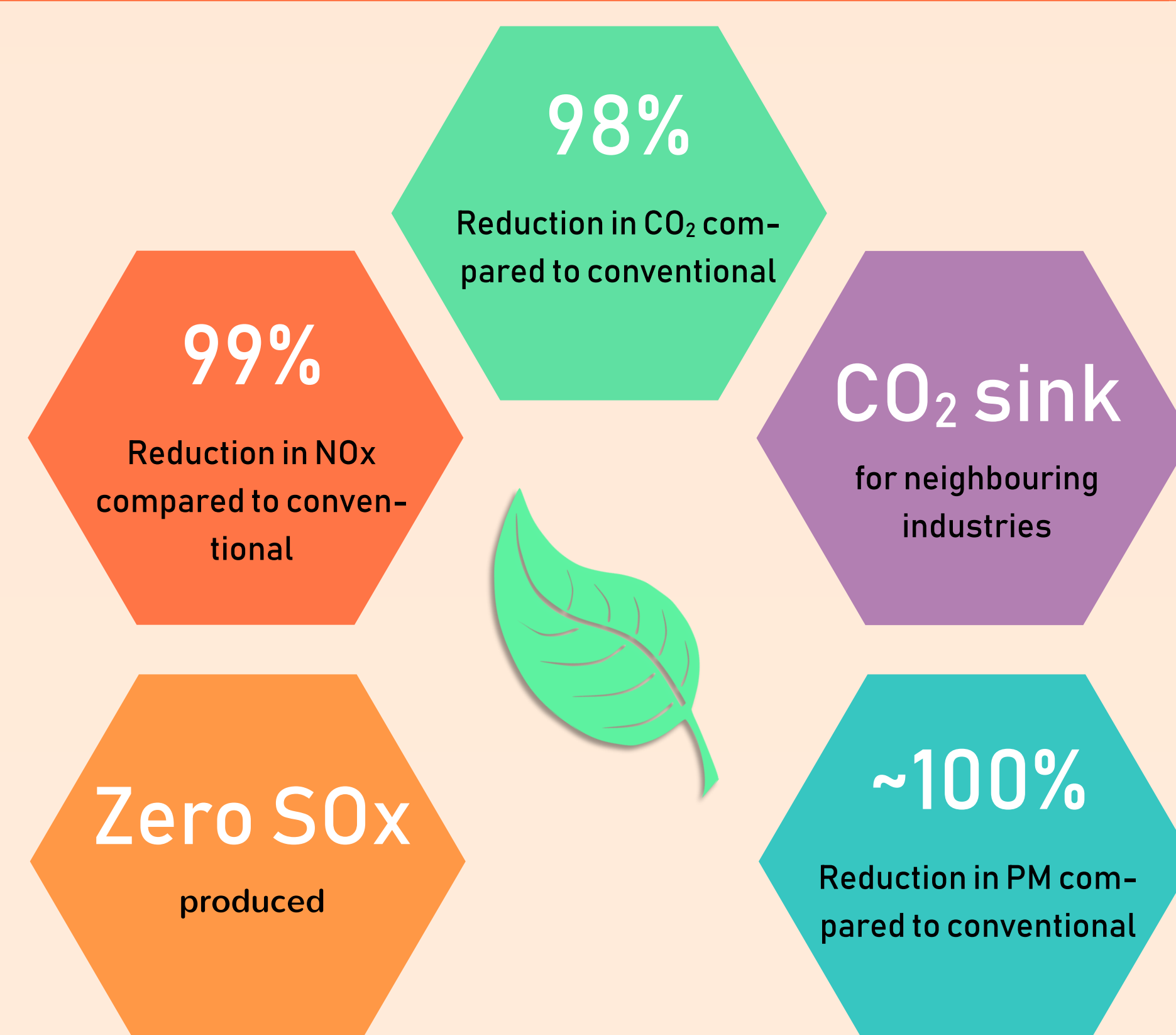
Glycerol  
**78,912** tonnes/year

Glucose  
**1,553** tonnes/year



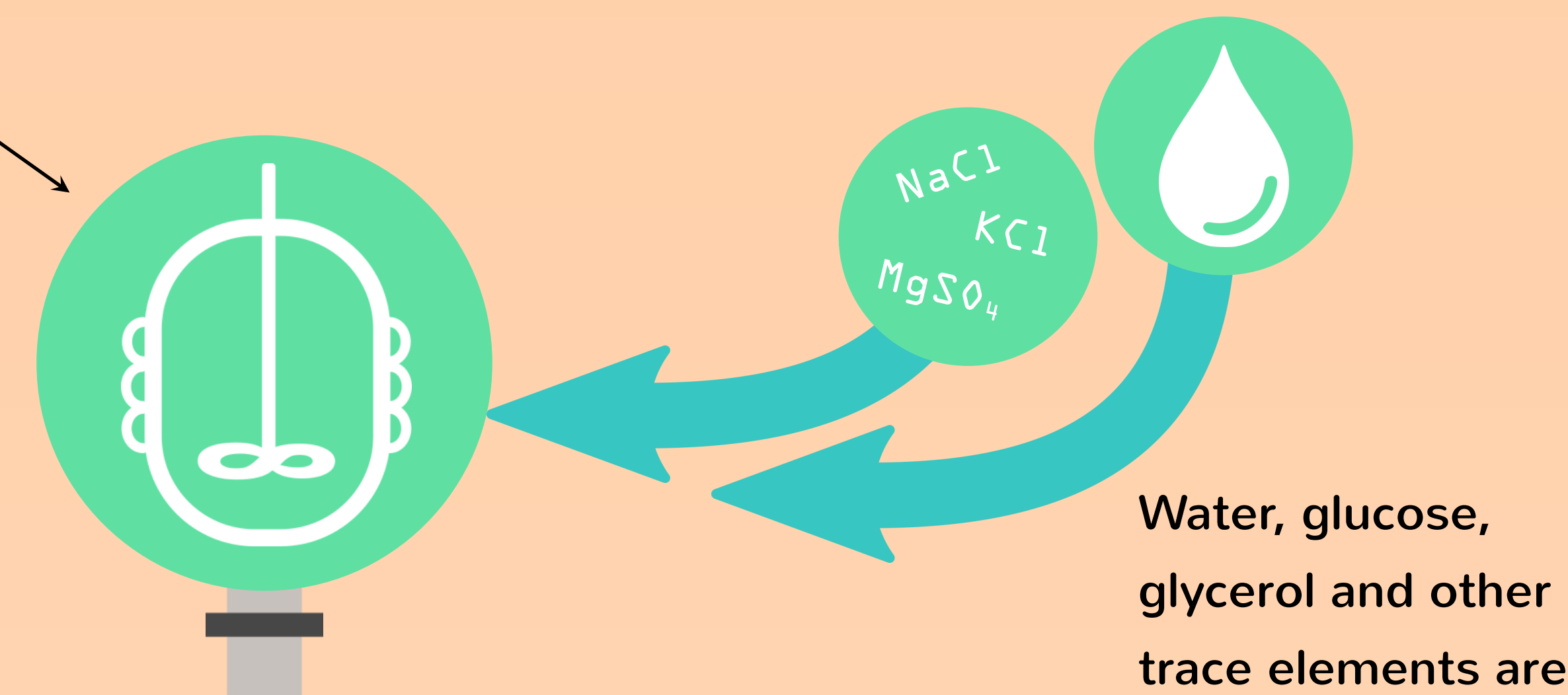
Adipic Acid  
**37,672** tonnes/year

## Environmental



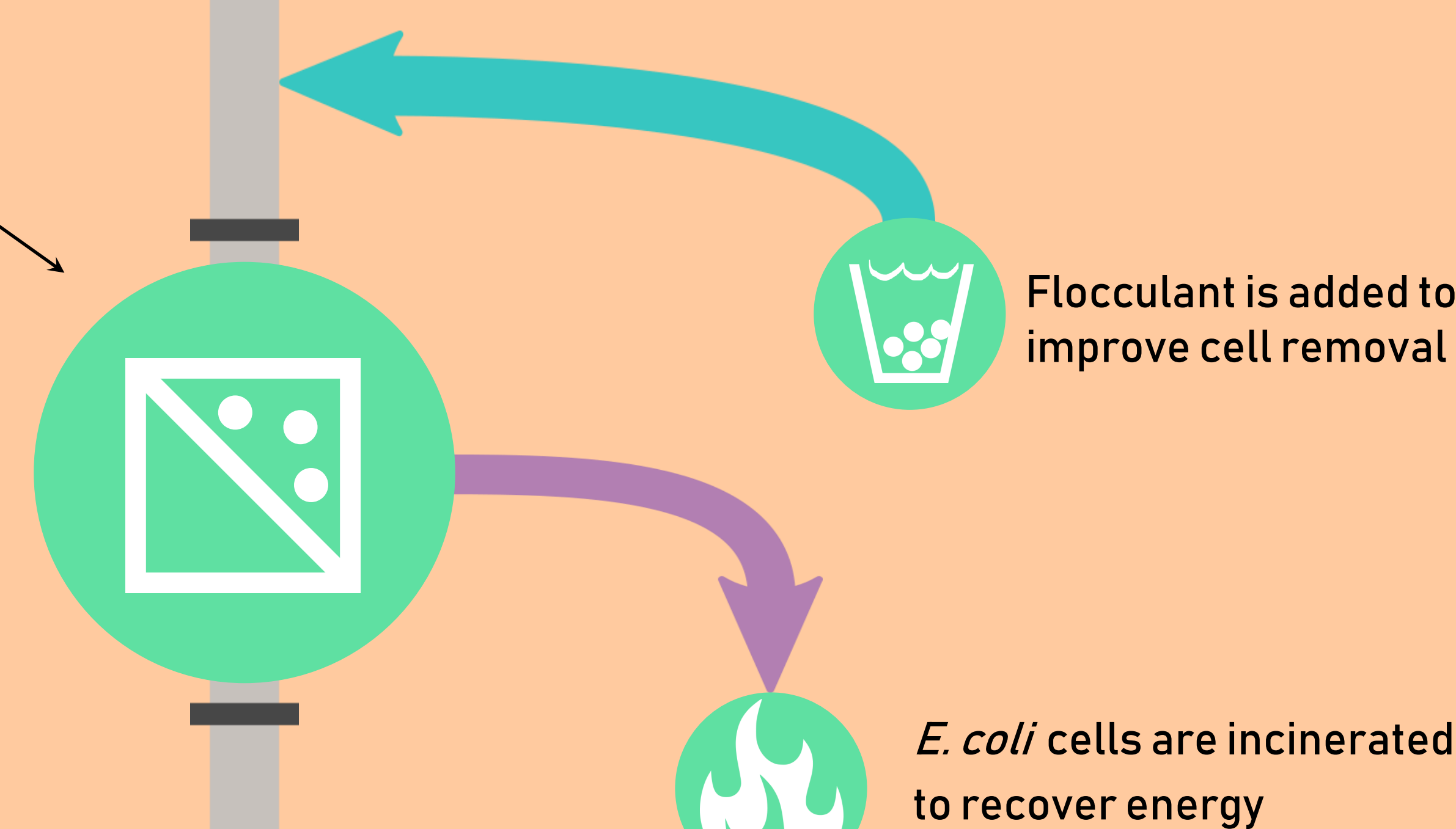
## Bioprocessing

29 bioreactors operate in parallel to continuously ferment 5.5 tonnes of adipate per hour



## Separation

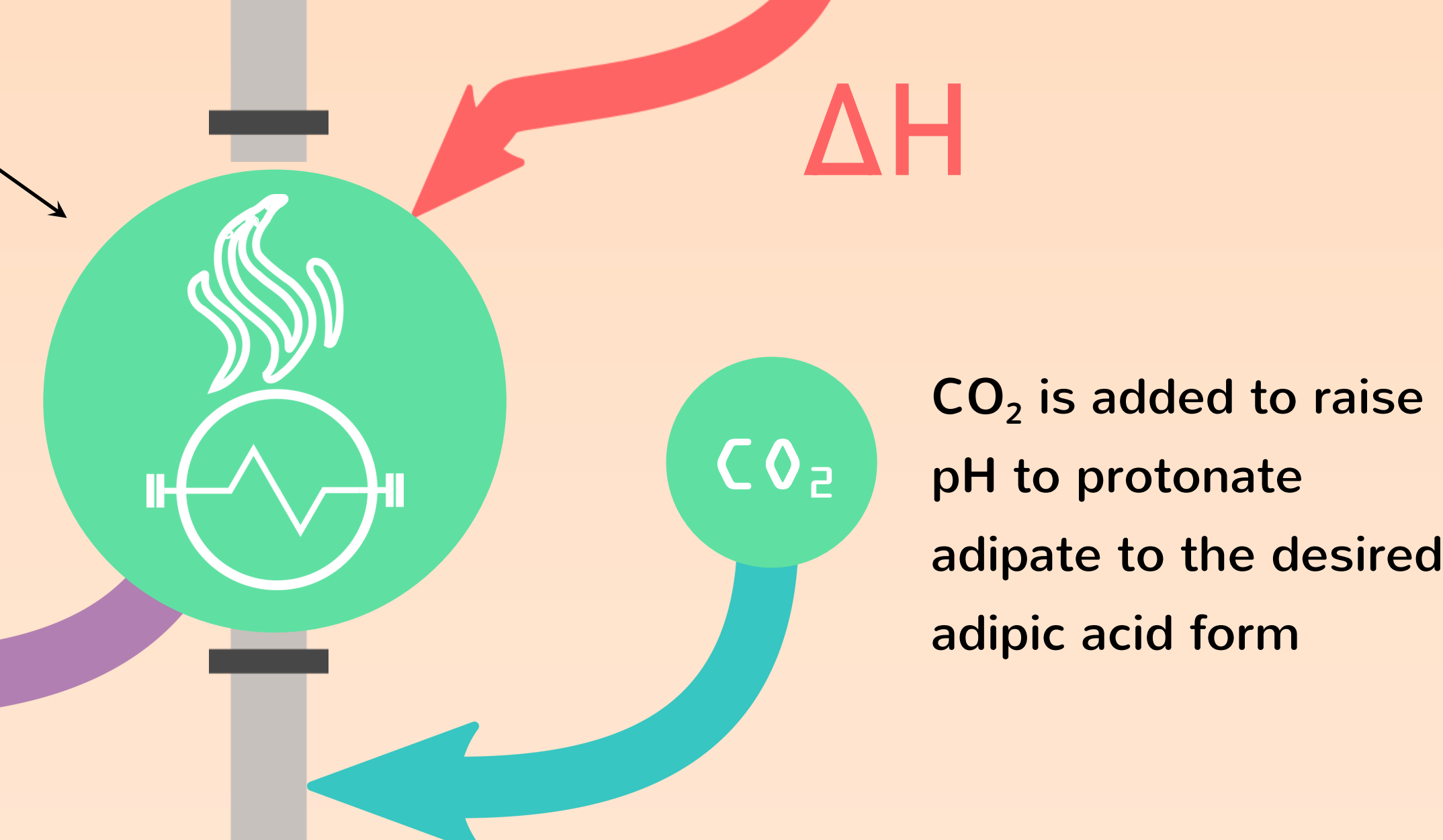
Rotary vacuum filtration removes cells while adipate and impurities remain in solution



## Concentration

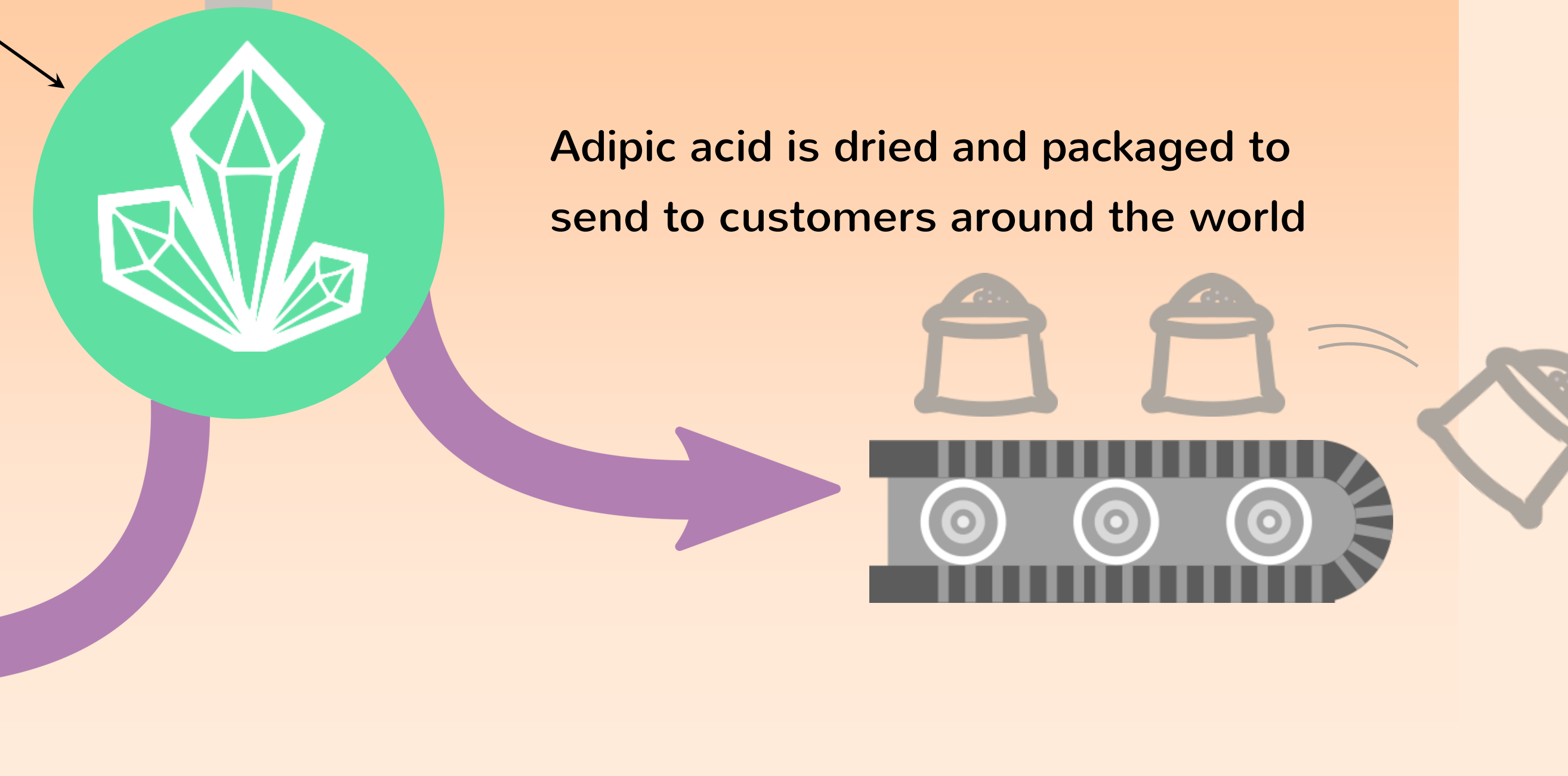
Evaporation train increases the concentration of adipate from 60 g/L to 416 g/L

80 000 kg/h of water removed

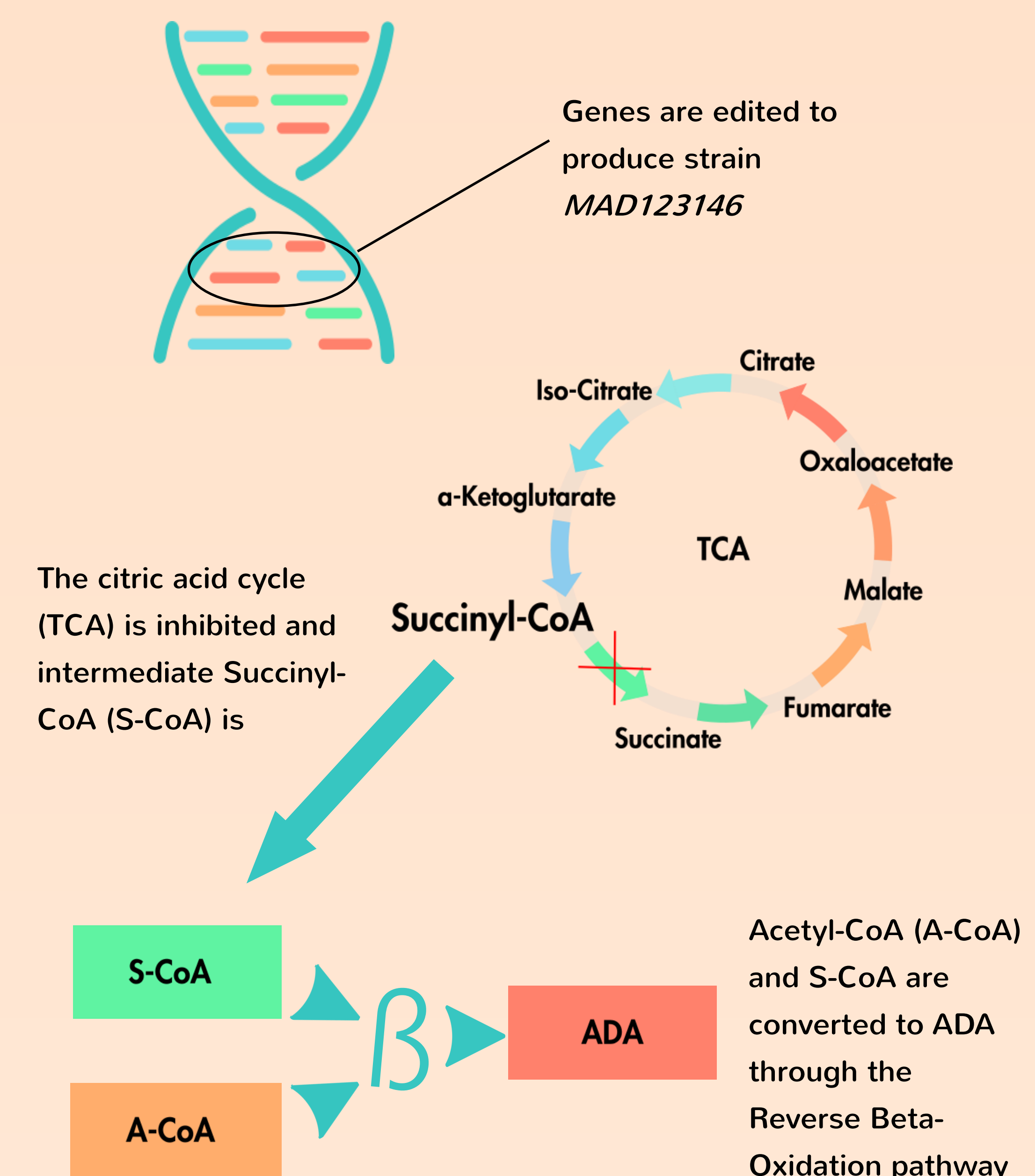


## Crystallization

Product stream is cooled to precipitate adipic acid while impurities remain in solution



## Technology



## Economics

