



genomatica

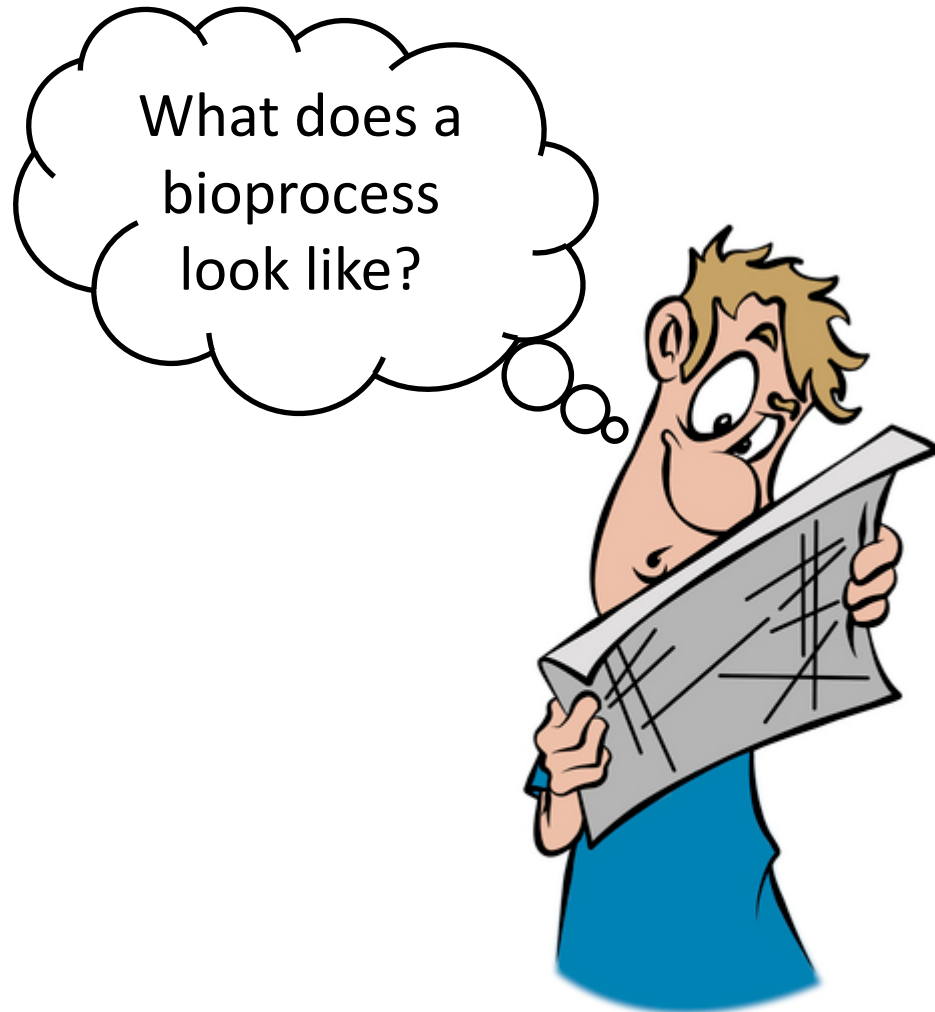
Case study: Bioprocess Assessment

BES General

Genomatica

Company X lacks economical method to produce high growth potential product

Genomatica provides necessary expertise in bioprocess assessment



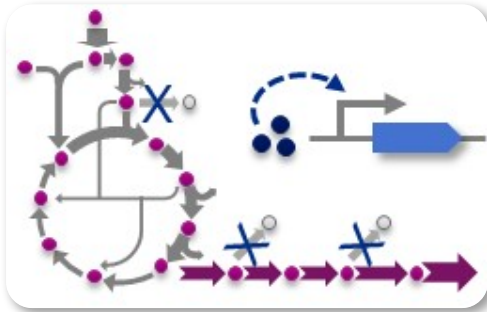
Existing options to make product X:

- Extraction from plant material (traditional method)
 - Low yields, expensive feedstock, difficult purification
- Synthetic chemistry
 - Complicated synthesis, low yields, too expensive

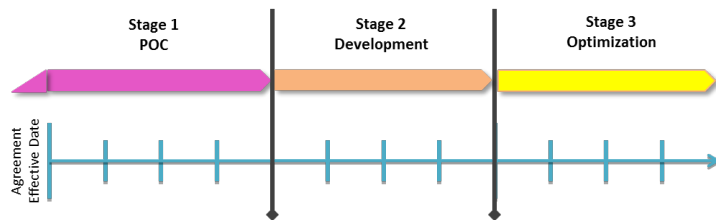
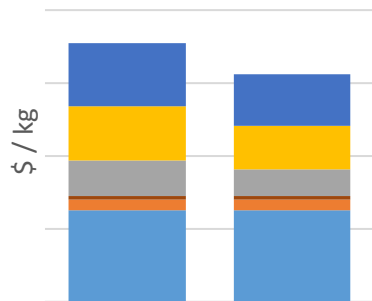
Can a bioprocess replace existing methods?

Company X commissions a feasibility study from Genomatica

Requires advanced bioengineering platform for complete analysis



Production Cost Breakdown



Report Content:

- Biological pathway evaluation
- Host organism selection
- Metabolic engineering strategies
- Bioreactor conceptual design
- Process economics
- Recovery and purification conceptual design
- Technical risks and mitigation strategies
- Time and resources needed for commercialization

Company X empowered to make informed decision

Report guides business strategy

Summary

- *Problem:* Company X lacks expertise to evaluate bioprocess option
- *Action:* Hired Genomatica for a bioprocess feasibility study
- *Results:*
 - Bioprocess determined to be cost advantaged
 - Identified risks have mitigation strategies
 - Timeline and resources provided enable creation of business case by customer