A study in Scarlet
Chalmers Gothenburg
Our team
Tiny Factories – Large Industries

0.8 million tons

45 billion liters

0.57 million tons
The Concept
The Concept
The Concept
The Concept
The Concept

SURVIVAL

DETECTION

SURVIVAL
The Concept

DETECTION

SURVIVAL
Approach

- Time frame
- Students only
Detection

• Requirements
  - Broad range
  - Low impact on yield
  - Signal strength
Contaminant
Contaminant

RFP
Survival

- Requirements
  - Efficient
  - Low effect on yield
  - Safety
Survival
Safety

• Robust yeast strain
• Prevent GMO spreading
• Safety switch
Practical Work
Detection – Results

Contaminant → RFP
Detection – Results

Contaminant

RFP
Detection – Next Step

Contaminant → RFP

Contaminant → RFP
ATP

Mig1

Snf1

Ssn6/Tup1

pSUC2

TPK2
What about Survival?

- Problems with cloning
Human Practices - iGEM Community

• Czech Republic

• Nordic Teams
Human Practices

• Next generation
  • SynBio crash course
  • SWE-Wikipedia articles
Human Practices

- Society
  - Survey
  - Media

Attitude towards GMO on a scale from 1-10 (Average) - Public vs Academics
Achievements

- Safety Switch
- Detection of P-factor
- 4 BioBricks
- Predictive models

- iGEM Community
- Next Generation
- Society
Supervisors

• Senior Researcher Verena Siewers

• PhD student David Jullesson
Thanks to

INTEGRATED DNA TECHNOLOGIES

NEW ENGLAND BioLabs Inc.
Questions?