

Government & Science Policy Breakout Session 2

2020 Careers in Science & Engineering
Symposium Program
University of Kentucky (virtual)

August 29, 2020

Elizabeth Burrows, PhD

Technology Manager

Bioenergy Technologies Office (BETO)
US Department of Energy

My winding career path (and how transitions were made)

Mount Holyoke College
BAs in Math and Environmental Studies
Research in Ecosystem Science

Marine Biological Laboratory
Research in Forest Ecosystem Science

Oregon State University
PhD in Biological & Ecological Eng.
Minor is Ecosystem Informatics

Princeton/Rutgers
Postdoc in Chemistry

Bioenergy Technologies Office at DOE
Contractor on communications team
Contractor on tech team(s)
Technology Manager

National Science Foundation
AAAS Science Policy fellow

Joule Unlimited
Industry position at biofuels start-up

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Applied to a summer internship, was offered a full-time position

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Postdoc in Chemistry

Foundation
Fellow

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Random lucky connection: went to a lunch lecture and met an OSU professor

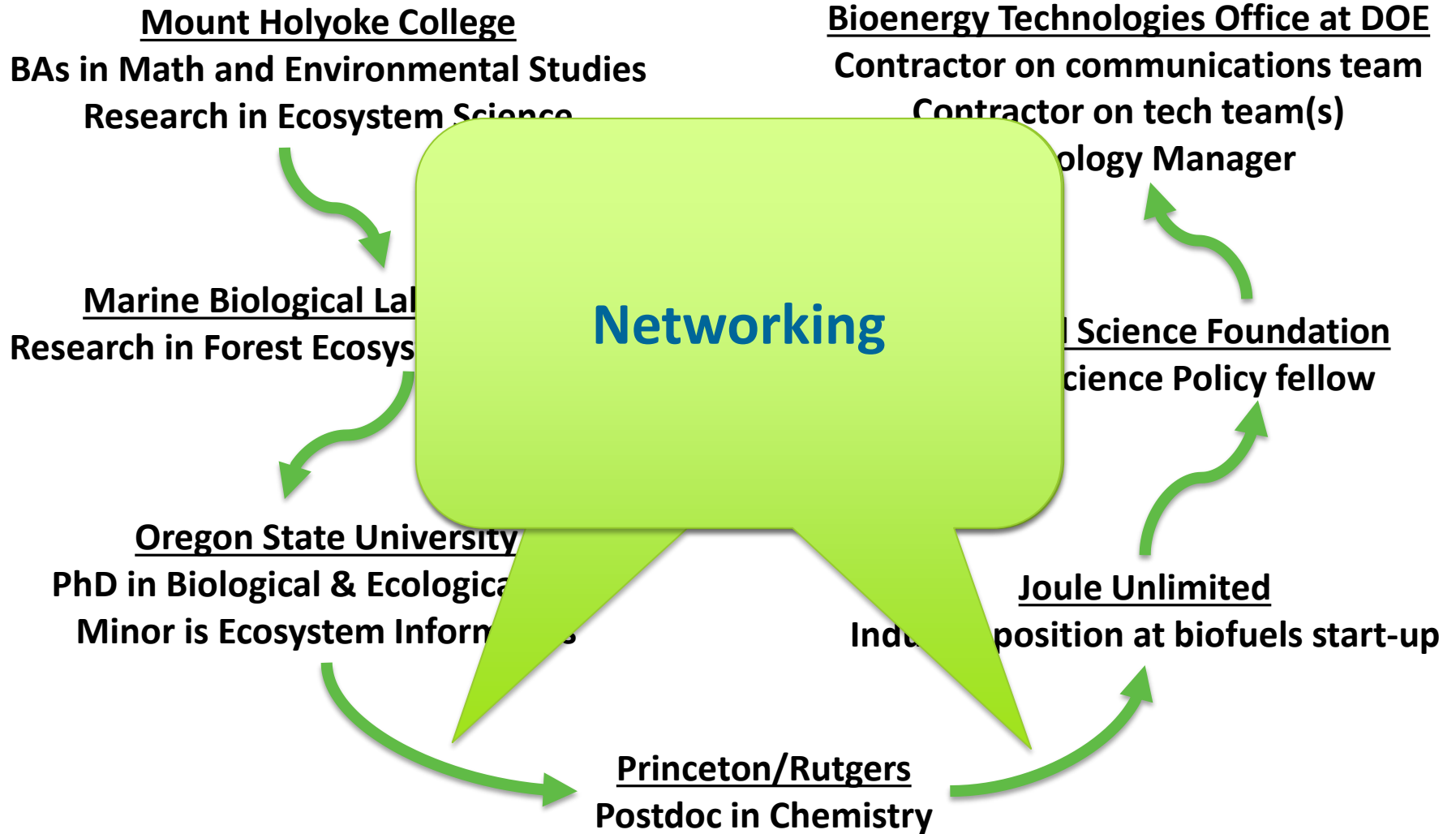
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My winding career path (and how transitions were made)



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Mount Holyoke College
BAs in Math and Environmental Studies
Research

Marine
Research in

Followed spouse to
DC, applied for every
possible position

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Technology Manager

Fellowship was ending.
Search “bioenergy” on LinkedIn.

There were two hits.

1st required PhD plus 10 yrs.

2nd required BA plus 2 yrs.

Applied to both.

Was offered the 2nd.

It led to other positions in the office.

Science Foundation

Science Policy fellow

Unleash the Power of Hydrogen

Position at biofuels start-up

Postdoc in Chemistry

Bioenergy Technologies Office's Mission and Vision



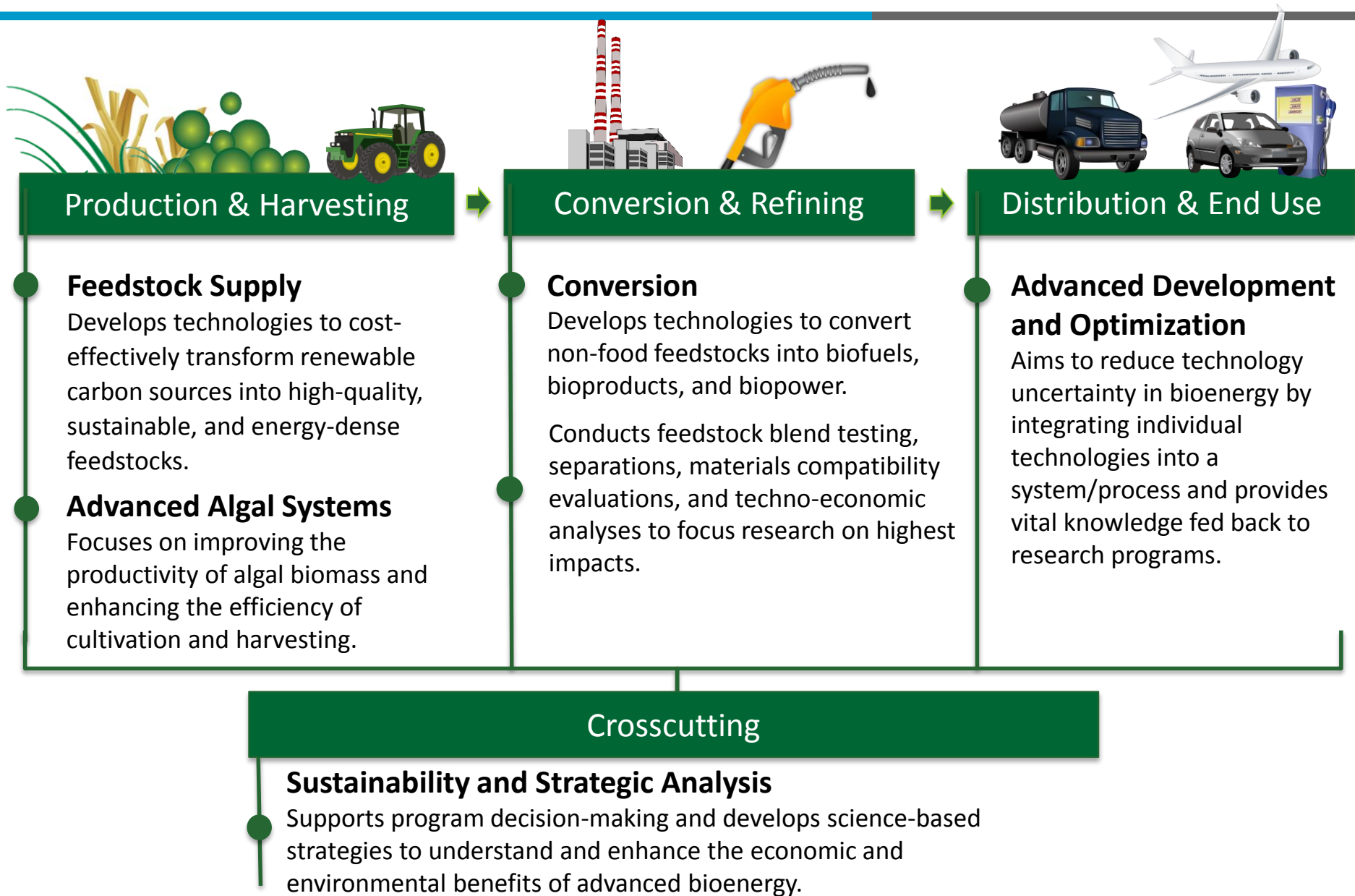
A thriving and sustainable bioeconomy fueled by innovative technologies

Developing transformative and revolutionary sustainable bioenergy and coproducts technologies for a prosperous nation

Develop industrially relevant technologies to enable domestically produced biofuels, biopower, and coproducts

BETO Reduces Technology Uncertainties and Enables Affordability Through R&D

Bioenergy Technologies Office's Program Areas



Bioenergy Technologies Office STEM resources

BIOENERGY BASICS

What is biomass? Where does biomass come from? How are biofuels made? What is bioenergy? Browse through the informational resources to learn more.

FELLOWSHIP OPPORTUNITIES

The Bioenergy Technologies Office fellowship program provides opportunities for scientists and engineers to gain first-hand experience with policymaking and implementation. Learn more about these opportunities.

EDUCATIONAL RESOURCES

Find lesson plans, science projects, and other activities that can be done in the classroom or at home to get K-12 students excited about bioenergy!

BIOENERGIZEME INFOGRAPHIC CHALLENGE

The U.S. Department of Energy (DOE) BioenergizeME Infographic Challenge, challenges high school students to design an infographic that responds to one of four bioenergy topics.

Subscribe to Updates

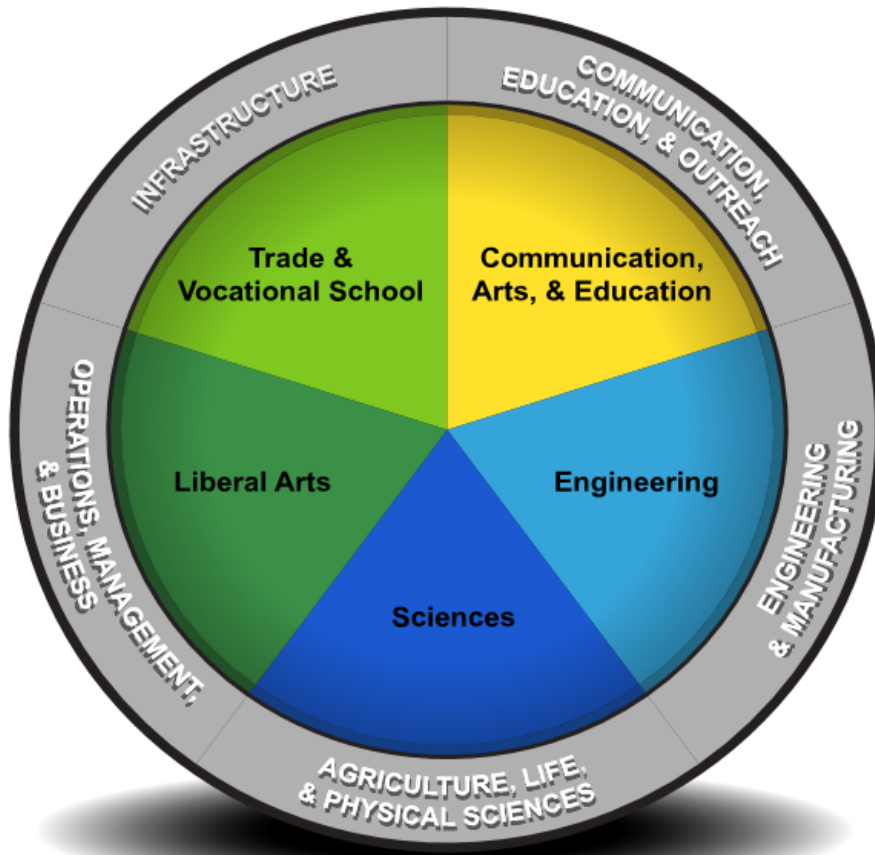
Sign up to receive bioenergy educational news and updates from the Bioenergy Technologies Office.

Bioenergy Career Map

<https://www.energy.gov/eere/bioenergy/bioenergy-career-map>

BIOENERGY

Career Exploration Wheel



INSTRUCTIONS

Discover career opportunities in the bioenergy industry! This interactive tool explores the growing network of bioenergy occupations, illustrates potential career pathways, and identifies the education and training necessary for each career. This map is intended to be an educational tool and does not endorse any particular career, university, or private business. This map is not a listing tool for job opportunities at the U.S. Department of Energy or any other Federal government agency.

The "Career Exploration Wheel" graphically depicts how academic concentrations relate to bioenergy industry sub-sectors. The career map can be used by people of all stages or levels of academic and professional progression. Mouse over the wheel to explore how your academic background corresponds to bioenergy industry related careers in Communication, Education, & Outreach; Engineering & Manufacturing; Agriculture, Life, & Physical Sciences; Operations,

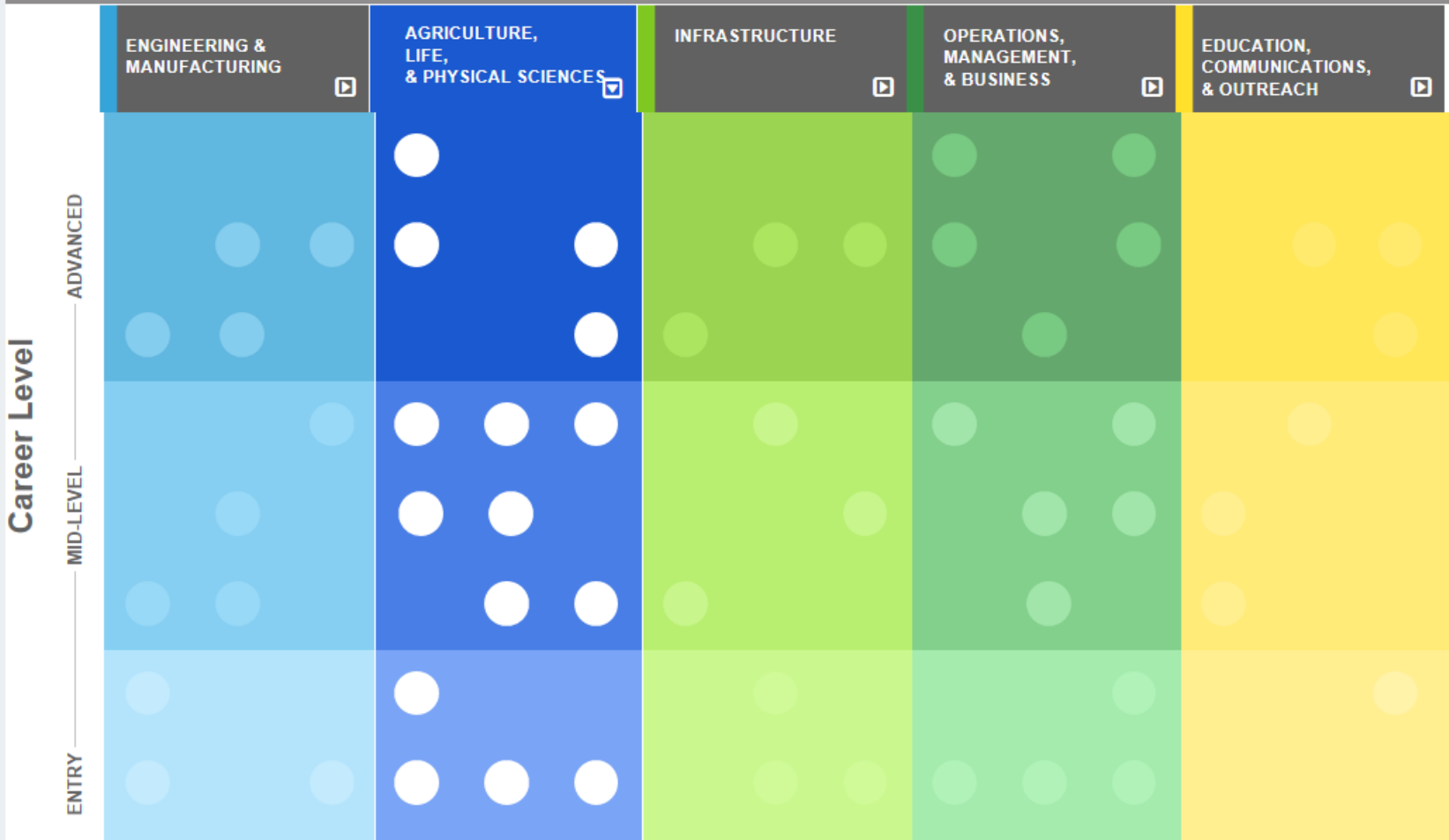
Bioenergy Career Map

BIOENERGY CAREERS

ALGAE TECHNOLOGY EDUCATIONAL CONSORTIUM

WORKFORCE DEVELOPMENT OPPORTUNITIES

Mouse over the career map at the left to explore bioenergy industry related jobs in Communication, Education, & Outreach; Engineering & Manufacturing; Agriculture, Life, & Physical Sciences; Operations, Management, & Business; and Infrastructure.



What I would have liked to know when I was a student

- Any/all opportunities are valuable
 - Career is less about “choosing” the best fit, and more about taking the opportunities that arise
- If you’re debating between some tough choices (e.g., which classes to take, summer internship vs. working, jobs to apply for, etc.), you can’t go wrong!
- Employers often have leeway in hiring, so when in doubt, just apply
- Positive attitude and hard work really do pay off
- Scientists, engineers, quantitative thinkers are needed everywhere, especially in government and policy

Thank you!

Questions?

I look forward to answering any questions you have!