



# Engineering Research Centers

# ERC

## Gen-4 ERC: Innovation Ecosystem

NSF 19-503

Kickoff Meeting  
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# OUTLINE

- **Definition of Gen 4 ERC Innovation Ecosystem?**
- External ERC Strategic Partnerships
  - Innovation Ecosystem culture
  - Industry Partnerships
  - Stakeholder engagement



# What is meant by the Gen 4 ERC Innovation Ecosystem?

The **Gen 4 Innovation Ecosystem** is made up of a community of stakeholders working together to create and enhance the capacity for innovation and new ways for delivering value with positive societal impact.



# Expectations: ERC Innovation Ecosystem

- Form strategic partnerships with core industrial/practitioner stakeholders
- Speed the translation of research into new processes and products as guided by the logic model
- Engage all stakeholders
- Follow best practices to optimize utilization of ERC' s knowledge/ technology advances
- Foster entrepreneurial culture by engage ERC students in all phases of the innovation process



# Engaging Gen 4 ERC Stakeholders

- Academic partners (faculty, students)
- Industry partners
- State and local governments
- Regulatory agencies
- *Entities or individuals impacted by proposed technology (impacts can be positive or negative)*

See Chapter 5 of ERC Best practices Manual

[https://erc-assoc.org/best\\_practices/best-practices-manual](https://erc-assoc.org/best_practices/best-practices-manual)



# OUTLINE

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# Strategic Partner and Innovation (SPI) Lead

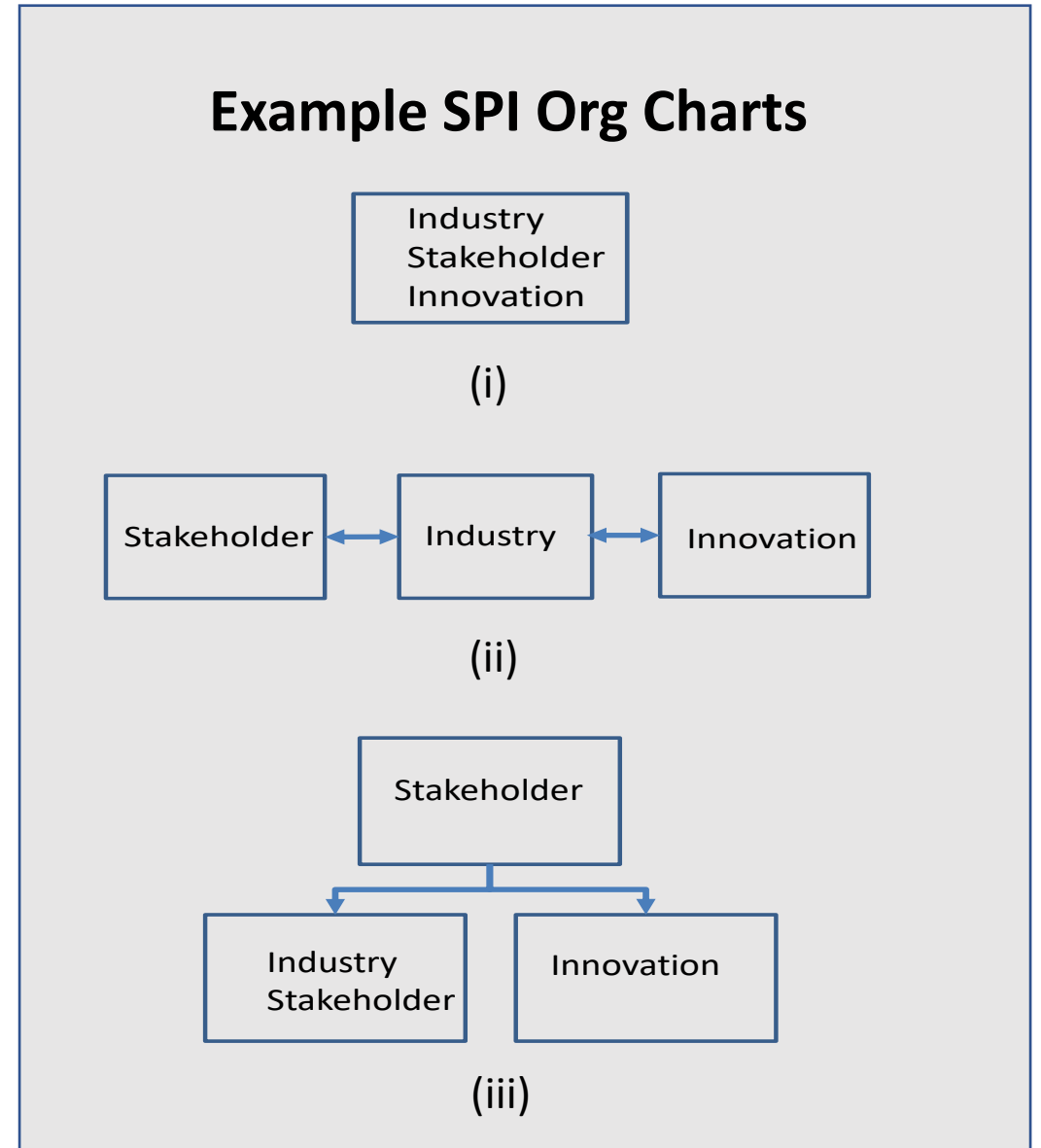
**RESPONSIBILITY:** Create the strategic plan for nurturing the ERC's innovation ecosystem. Under that umbrella, the SPI Director defines the organization, reporting structure, and processes needed to complete the following three functions:

- a) Nurture innovation ecosystem
- b) Manage industry partner relationships
- c) Engage stakeholders

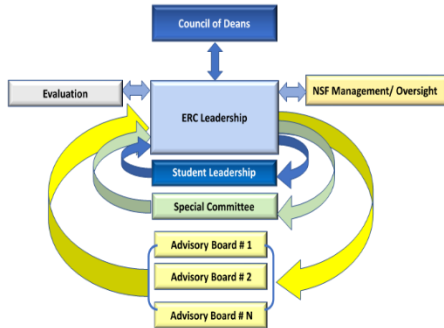


# Expectations of SPI Lead

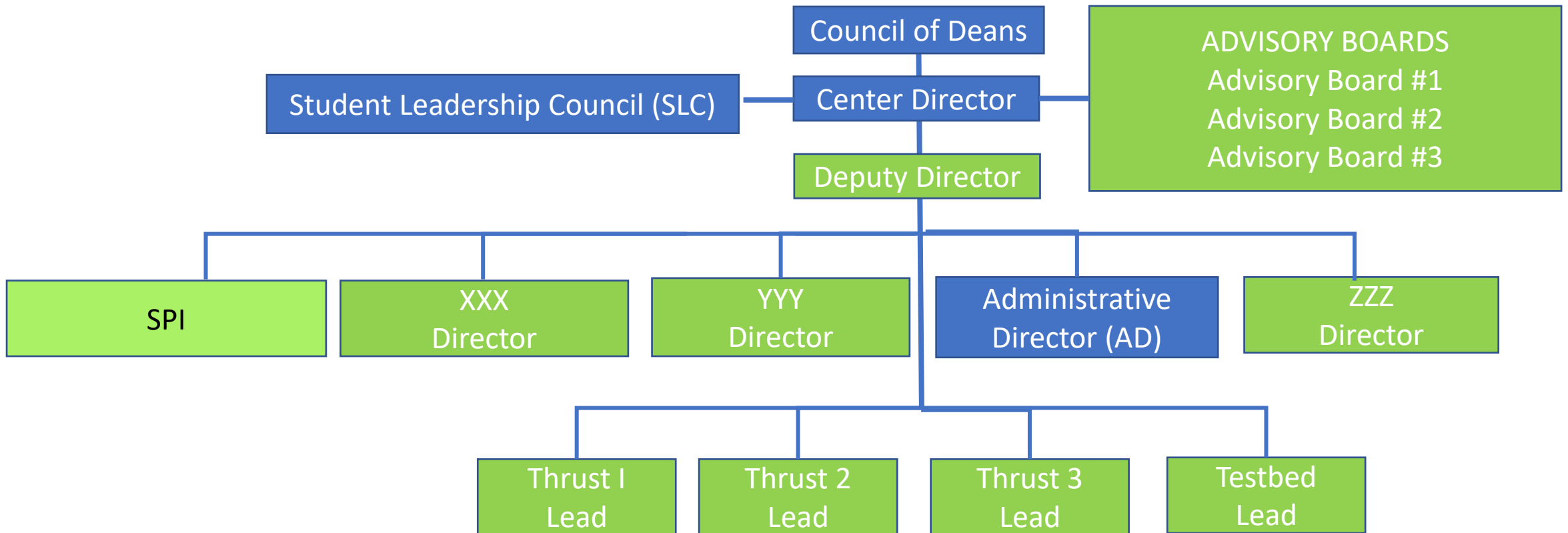
- Define roles and responsibilities for each SPI functional group
- Org chart for how SPI functions interact with among each other
- How does the SPI fit into the larger ERC org chart?







# Sample Org Chart





# Expectations of Innovation Function

- Manages the translational research process
- Develops partnerships to accelerate innovation with state and local government agencies and VCs
- Integrates innovation ecosystem program with ERC's education program and strategic vision for diversity and a culture of inclusion

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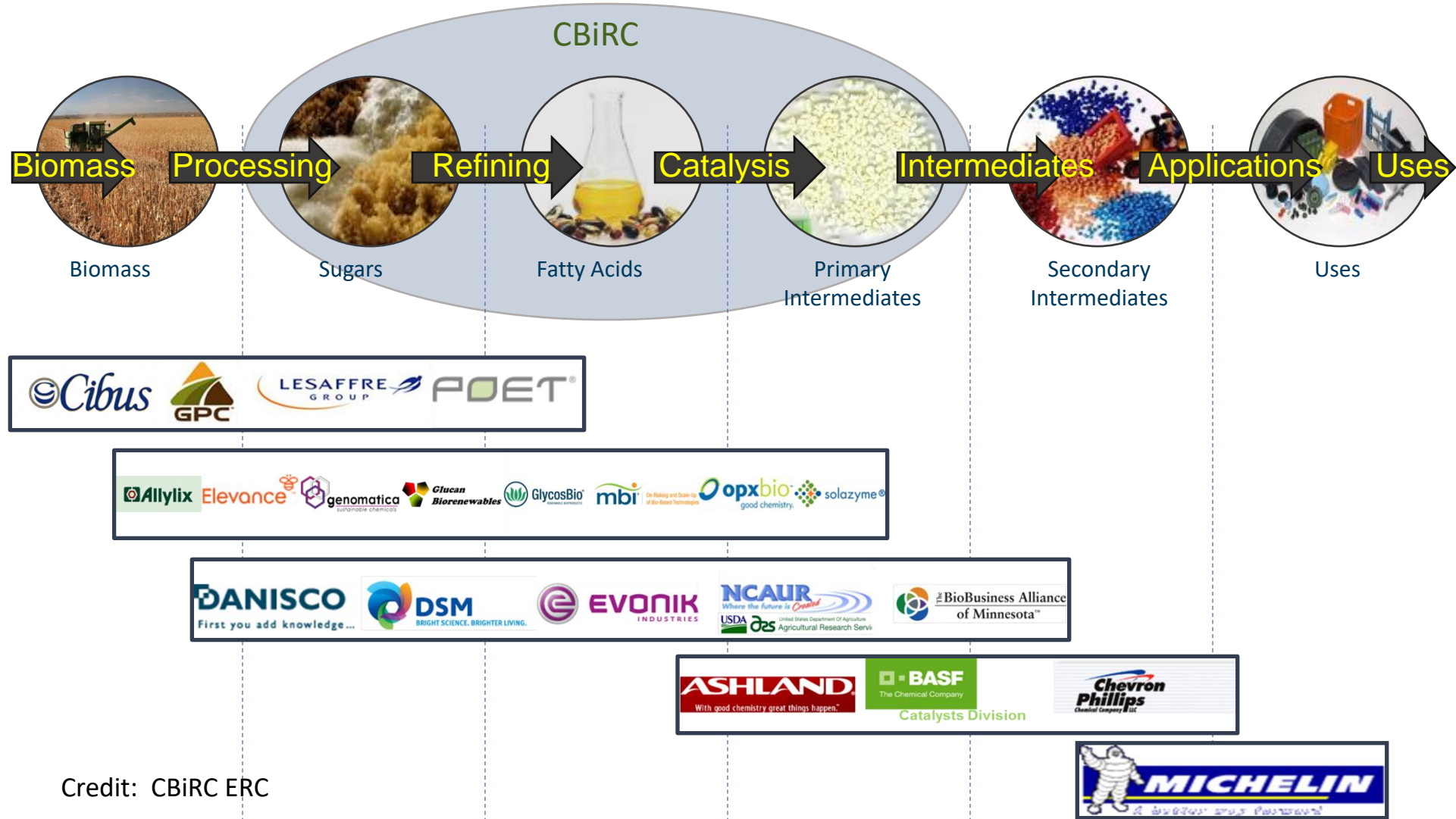
# Expectation of Industry Management Function

- Set vision and strategic plan for industry
- Develops and finalizes cross-university membership agreement and IP policy
- Finalizes Industry partner membership agreement and seals the deal to collect fees
- Market ERC to industry across the Industry value chain

See Chapter 5 of ERC Best practices Manual

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# Center for BioRenewable Chemicals – Members' Positions in Value Chain



Credit: CBiRC ERC



# Expectations for Stakeholder Function

- Stakeholder engagement can take many forms;
  - Bringing on individual consultants
  - Creating associate membership category
  - Engaging advocacy groups;
  - Forming innovation partnerships
  - Seeking membership partners who facilitate tech diffusion
  - Regulatory engagement
  - Investment focus groups
- Formalization mechanisms
  - How often do they interact with the ERC Team?
  - What is the nature of the interaction?
  - Do/should they generate a SWOT?
  - Do/should they generate a report?

This function is new to the Gen 4 ERC.



# SUMMARY

- Gen 4 ERCs need partnerships beyond industry to achieve societal impact.
- Strategic Partner and Innovation Lead proposed to
  - a) nurture the innovation ecosystem
  - b) manage industry partnerships
  - c) engage stakeholders
- References:
  - ERC Best Practices Manual, Chapter 5 [http://erc-assoc.org/best\\_practices/best-practices-manual](http://erc-assoc.org/best_practices/best-practices-manual)
  - ERC WEB Library, <https://www.erc-reports.org/public/library>