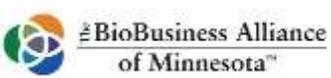


Recruiting and Retaining July 2016

Peter L Keeling
Iowa State University



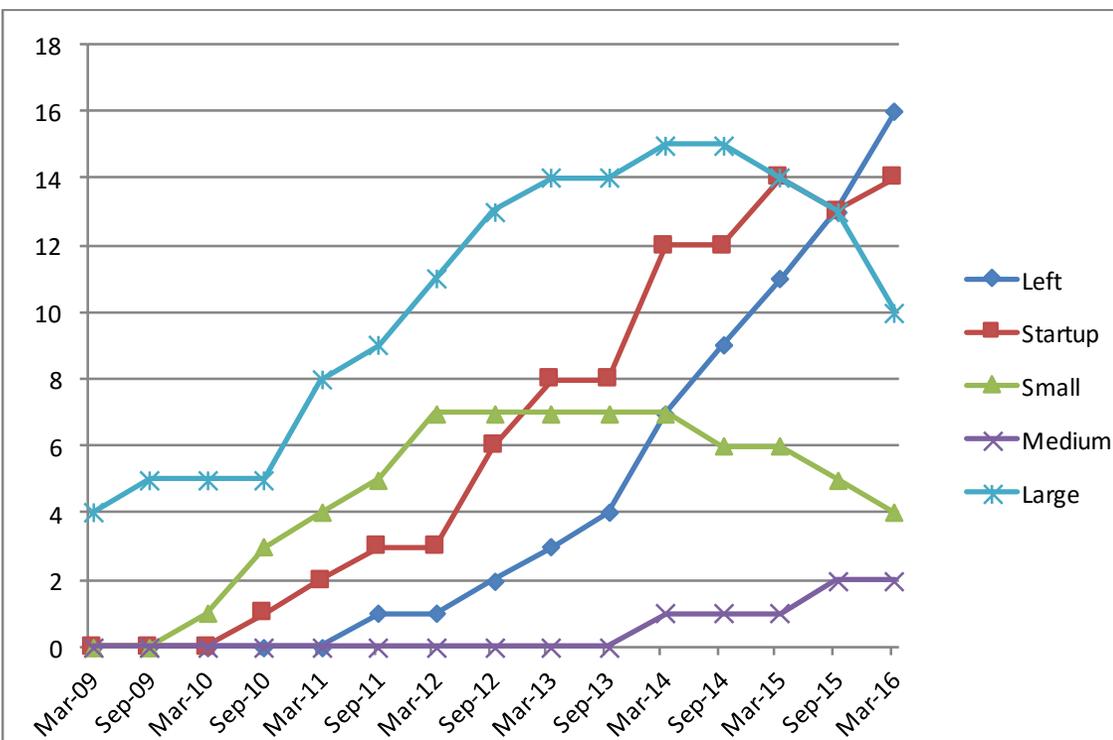
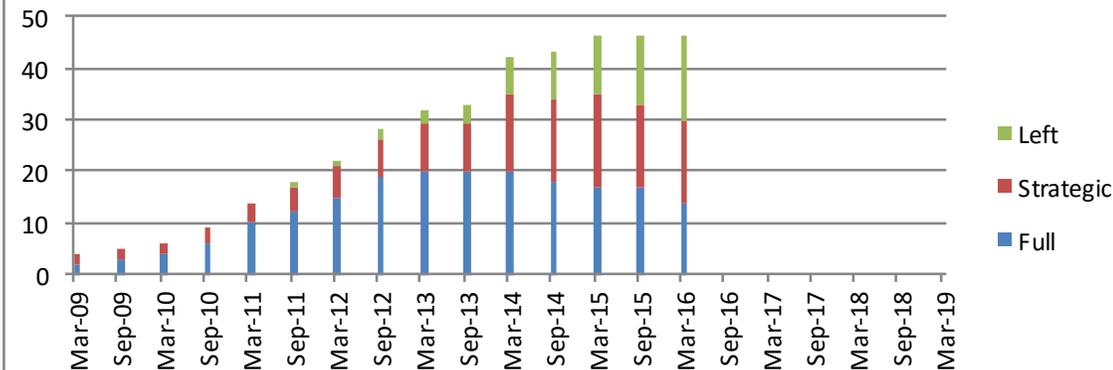
Industry Advisory Board - Since Inception

A to C	C to G	G to M	M to P	P to S	S to Z
       	        	      	       	      	      

One Year Away from Zero Members

- Members stayed between 1 year and 8 years
- Recruit, Reward, Retain.
- Stagger start/renewal date when sign agreement.
- Tiered membership offers valuable flexibility.

	Strategic No IP Options	Full Includes options to negotiate IP Rights	Sponsoring * To be negotiated on a case-by-case basis
Large	\$25,000	\$50,000	*
Medium	\$12,500	\$25,000	*
Small	\$2,500	\$5,000	*
Startup	\$500	\$1,000	*



Recruit, Reward, Retain

ERC's need an active IAB with sufficient diversity to add value to the center.

- Recruit
- Train
- Reward
- Retain



Core Needs

Understand why companies are members. They are not all the same.

- Clear Understanding of Industry Membership Benefits & Costs, and your Membership Agreements
- Solid Knowledge of your ERC's Science & Technology
- Classy Brochure with your ERC Story
- Convincing PowerPoint Presentation with Great Slides



- Consistent Credibility with your ERC Management Team and University Admin
- Build Links to the Broad Industry of your ERC
- Dialogue & Good Relations with your Industry Member Folk
- Patience, Perseverance, Persuasion, Passion & Vision

Membership Database & Track

Build a database of company names, connections, contact info and notes.

- Spreadsheet is good start.
- Next level is a CRM database.
- Will need a database to track invoices. Best if CRM and Invoice are integrated.
- ILO's that exit leave a challenge behind.

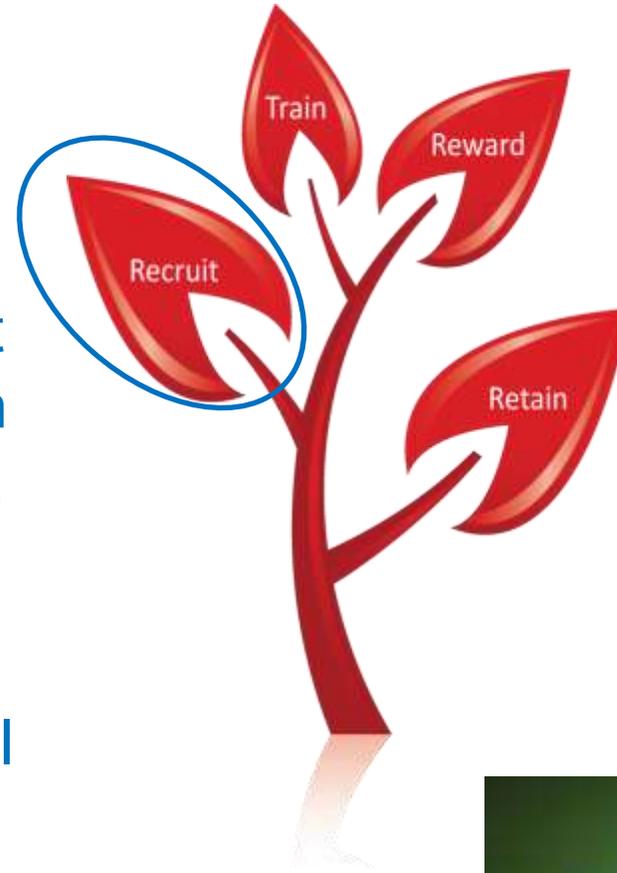
ZOHO CRM



Recruit

Find key decision makers. Industry folk move jobs. Track with LinkedIn.

- Emails, connections, business meetings lectures, brochures.
- Imperative to reach the “right person” as senior as you can get. Build many connections.
- Follow-up with conference call and campus visit.
- Invite select guests to Annual Meeting (Fee & CDA).



- Cold calls do not work.
- CDA is sometimes a problem.
- Use your IAB and Faculty.

LinkedIn

Your LinkedIn Network

1,822 Connections link you to 12,033,416+ professionals

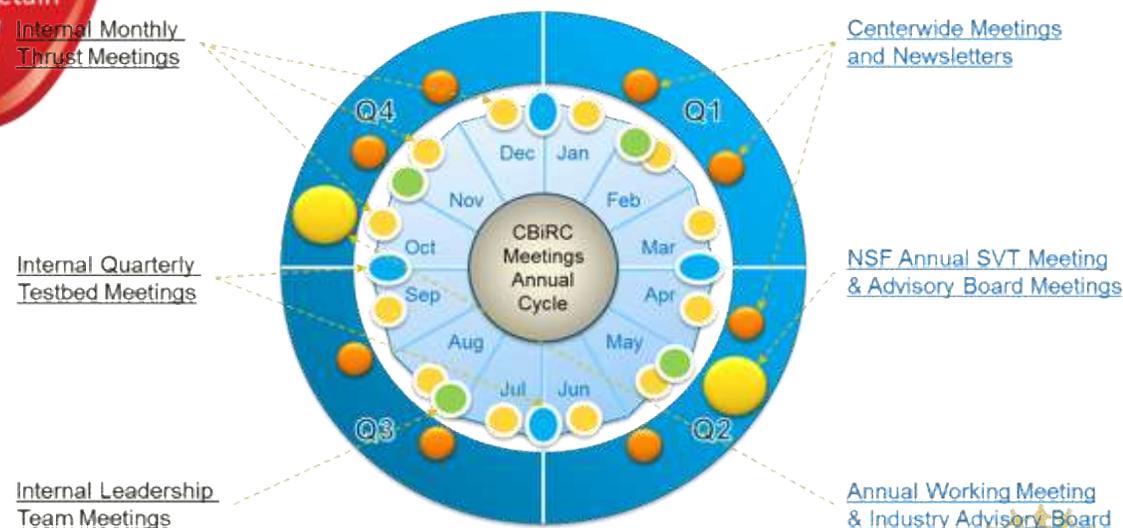
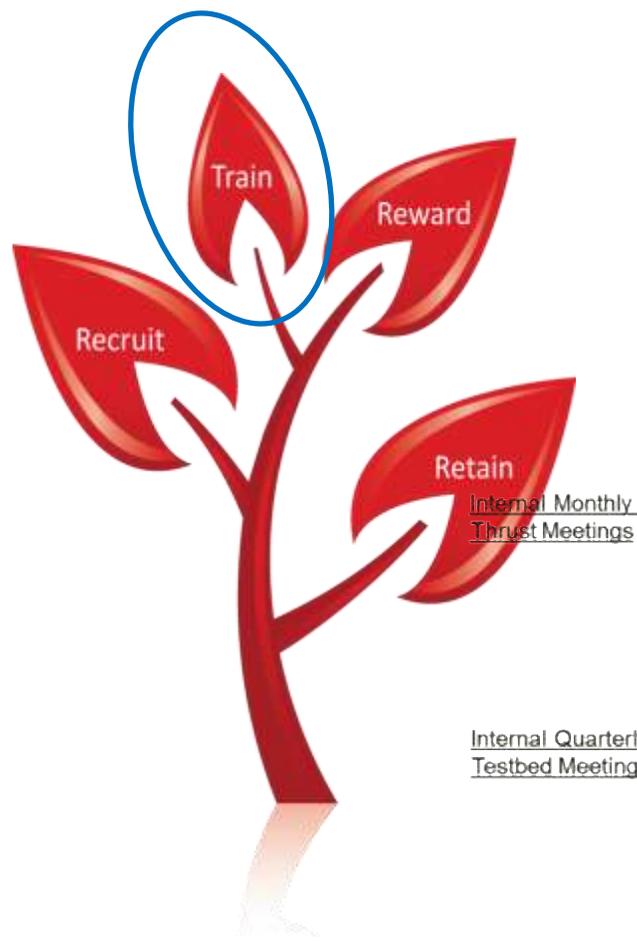
17,225 New people in your Network since April 26

7th Annual
BIO-BASED & SUSTAINABLE PRODUCTS
SUMMIT

January 13-14, 2016 | San Diego Marriott La Jolla | San Diego, CA

Train

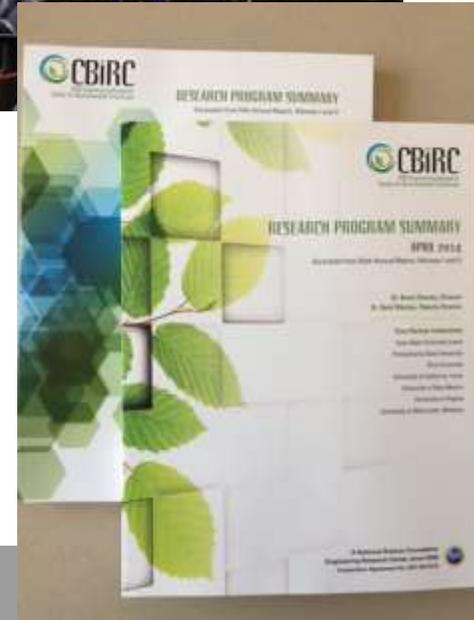
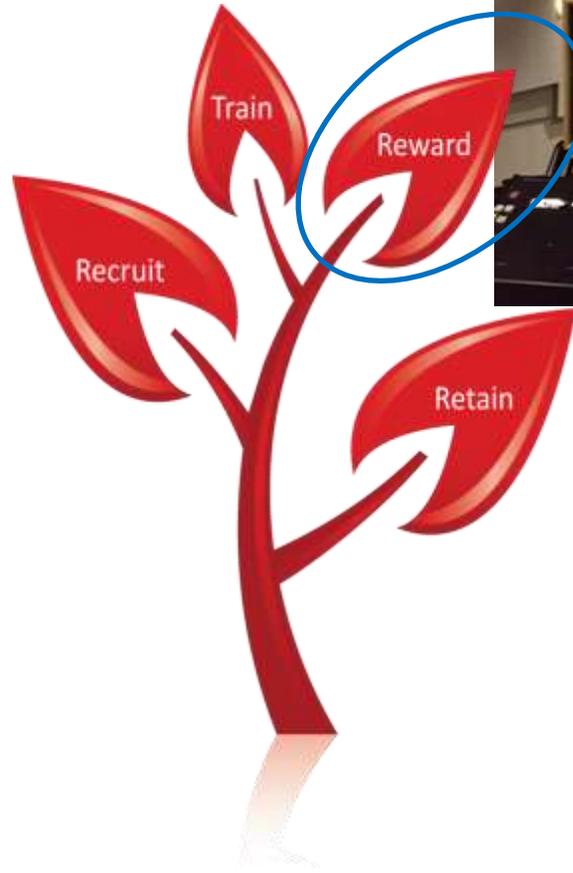
- Explain, describe and summarize.
- Often get new people to member meetings.
- Legal side and patents and internet access and strategy and SWOT.
- Build a good rapport with your IAB.



Reward

Respond effectively to emails or phone calls. Listen, evolve, make friends

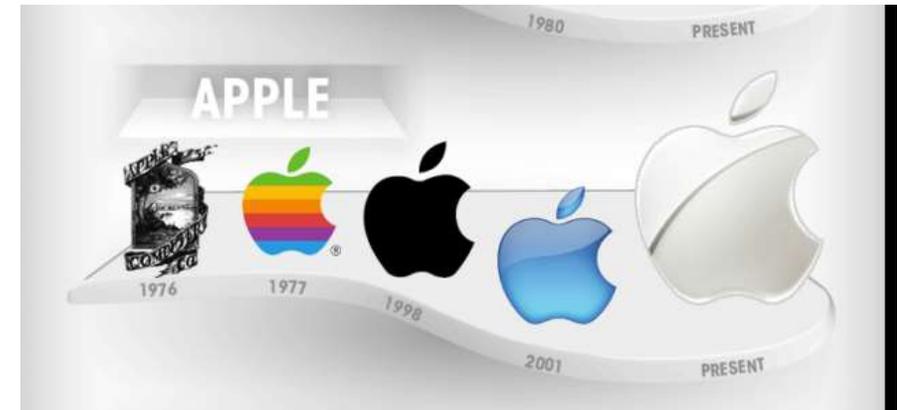
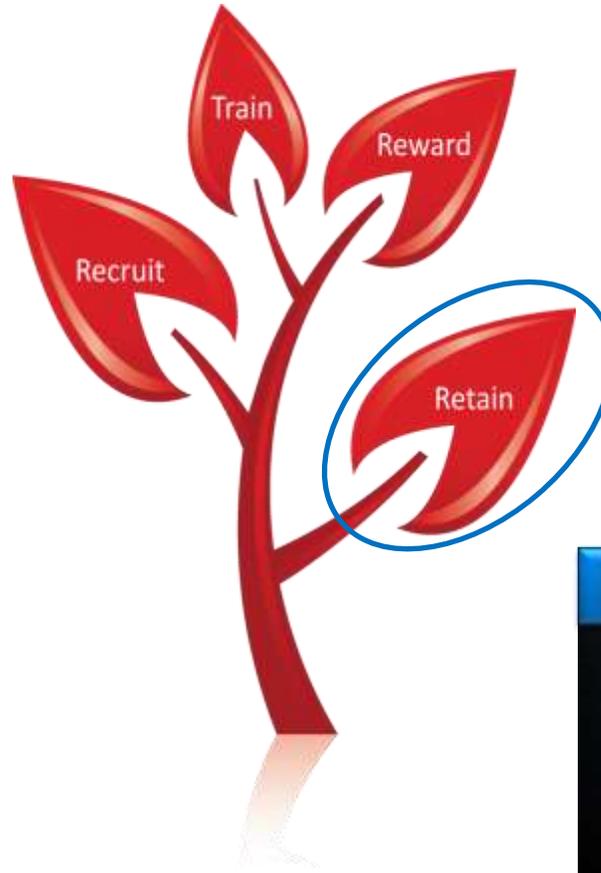
- Annual meetings are very important.
- Newsletters and webinars are very effective.
- Impossible to provide all information about an ERC to the membership.



Retain

Members that leave do not come back.

- Improve your program over time so that there is always a next level.
- Build multiple relationships with members.
- IAB Seed projects from membership fees.
- Sponsored research, internships, mentoring all build a deeper root in the ERC.
- Find creative ways to not lose a member.





Thank you!!



Problem – Solution – Challenges

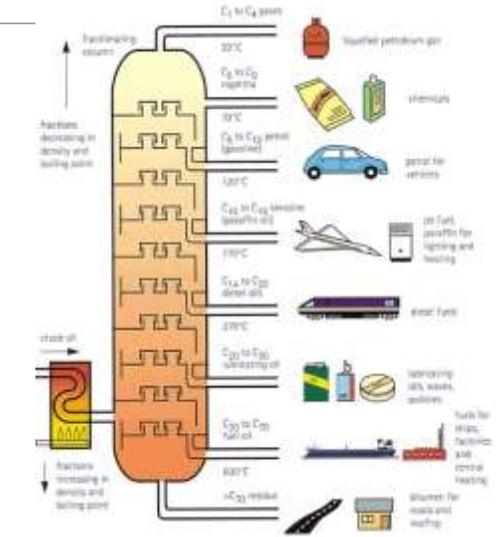
Scaled to 20M Gallons/Day
Derisked
Multiple Molecules



Less Scaled to 0.2M Gallons/Day
Not Derisked
Single Molecules



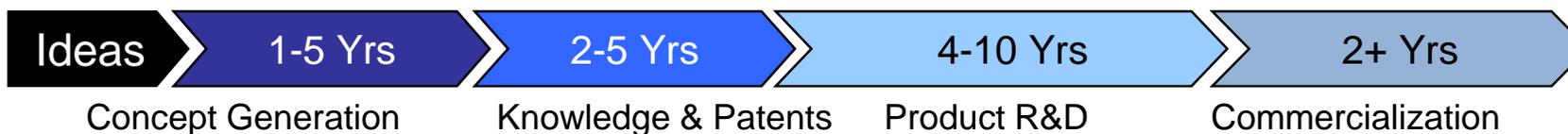
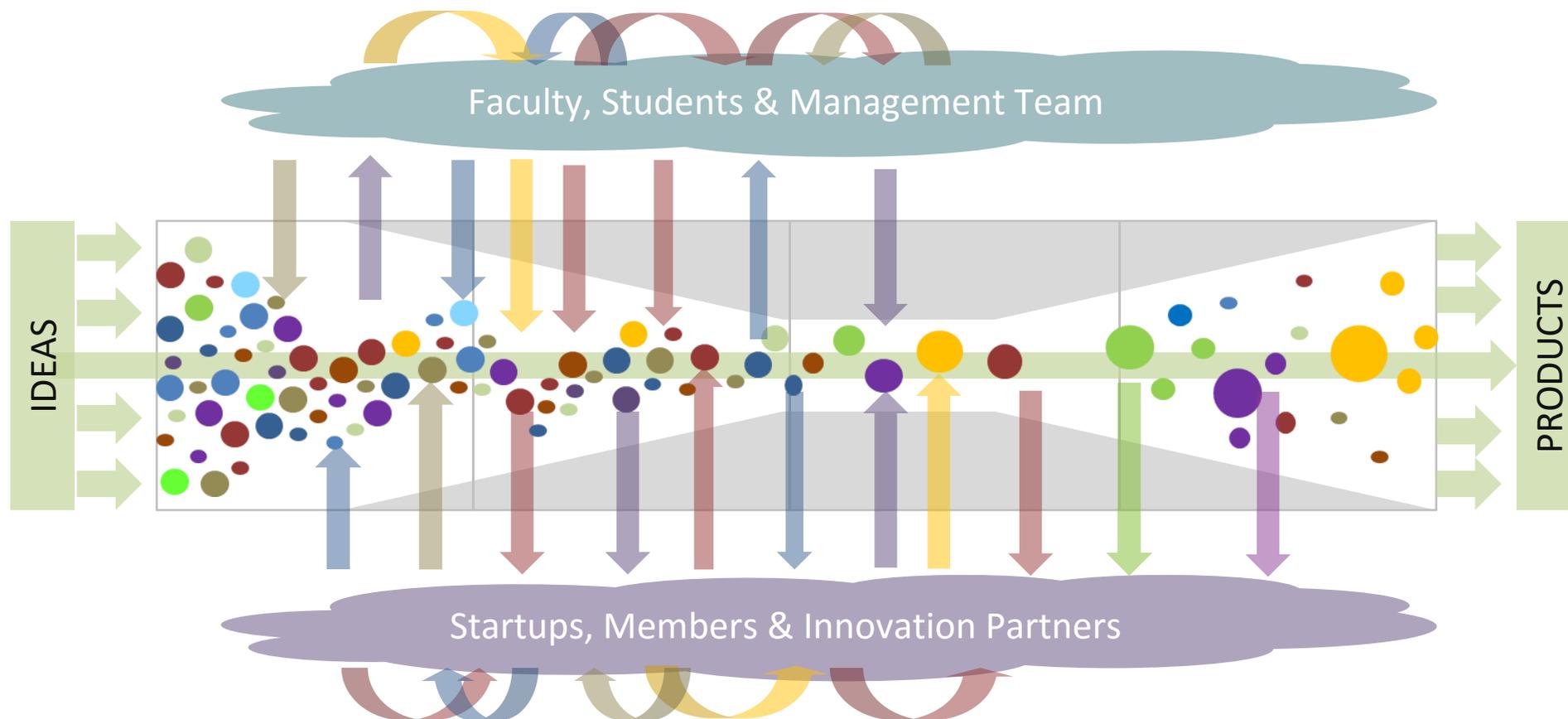
Alkanes
Aromatics
Cycloalkanes



Glucans
Xylans
Lignin



Innovation Ecosystem

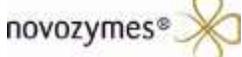
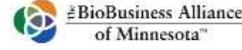


Year Joined

Larger

Smaller

Exit

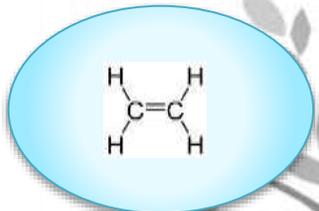
	2009	2010	2011	2012	2013	2014	2015
Larger							
							
							
Smaller							
							
							
							
Exit							
							
							
							
							



Existing Petrochemicals

ETHYLENE

maleic anhydride
ethanol
ethylene
ethylene dichloride
vinyl chloride
ethylene oxide
ethylene glycol
a-olefins
vinyl acetate
ethanolamines
diethylene glycol
butene-1
1,4-butanediol



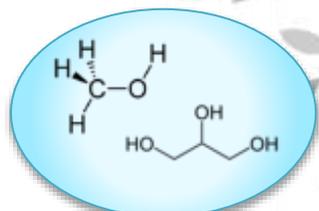
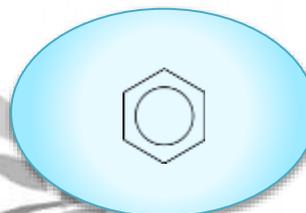
PROPYLENE

propylene
acrylonitrile
propylene oxide
acrylic acid
n-butanol
isopropanol
propylene glycol
2-ethylhexanol
methyl ethyl ketone



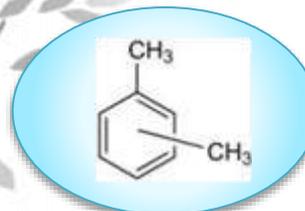
BENZENE

benzene
nitrobenzene
cyclohexane
adipic acid
caprolactam
linear alkylbenzene
cumene
phenol
acetone
bisphenol-A
methyl diphenyl diisocyanate
aniline
ethylbenzene
styrene



METHANOL/GLYCEROL

glycerol
methanol
methyl tert-butyl ether
formaldehyde
acetic acid
methyl chloride
Chloroform
methyl methacrylate



XYLENE

toluene diisocyanate
phthalic anhydride
o-xylene
terephthalic acid
p-xylene
butadiene

Alkanes/Cycloalkanes/Aromatics

Ecosystem Accelerator



**BIOBASED
FOUNDRY**



**TECHNOLOGY - LED
ENTREPRENEURSHIP**



- Students gain real insight into project and startup concept planning.
- At least one startup from each Entrepreneurship Course.
- Startups need mentoring and require funding.
- CBiRC's startups have accessed over \$5m of funding since 2011.

GlucanBio



OmegaChea



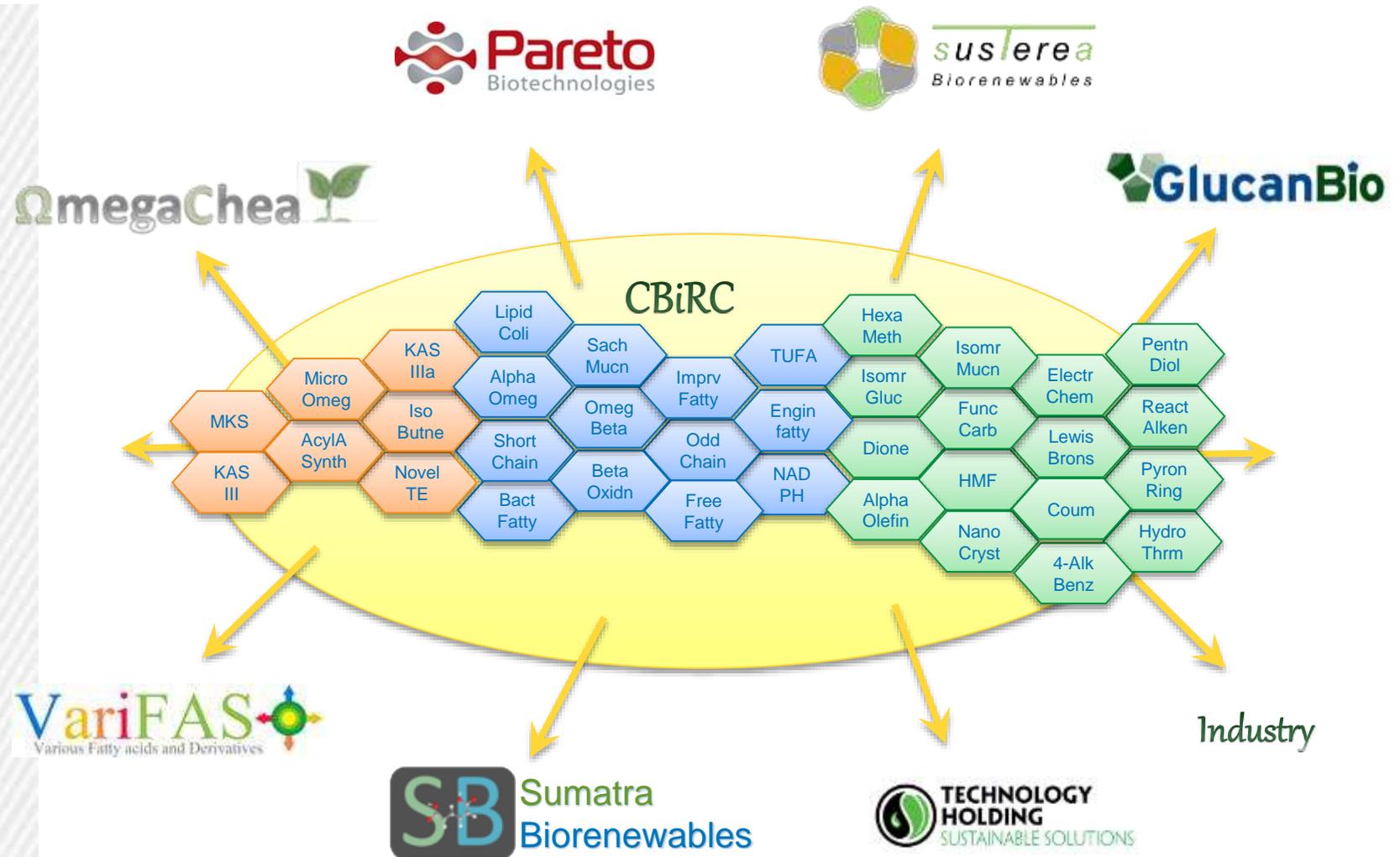
WebChemi



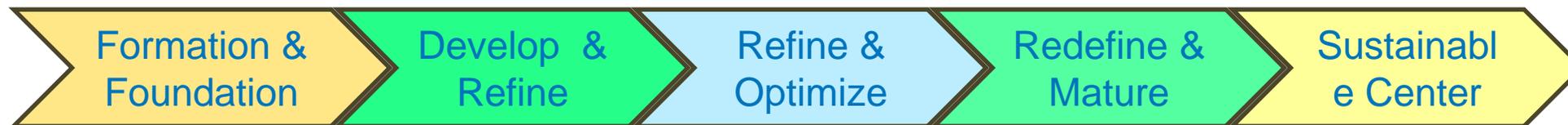
IP Portfolio & Technology Translation

BIOBASED FOUNDRY

CORPS
NSF Innovation Corps



Different Stages



Stage 1. ERC Years -2 thru 0 Formation and Foundation	Stage 2. ERC Years 1 thru 3 Define and Develop	Stage 3. ERC Years 4 thru 6 Refine and Optimize	Stage 4. ERC Years 7 thru 10 Redefine and Mature	Stage 5. ERC Years 10+ Graduate to Sustainable Center
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ERC Stages

ERC STAGES & YEARS CONCEPT	Stage 1. ERC Years -2 thru 0 Formation and Foundation	Stage 2. ERC Years 1 thru 3 Define and Develop	Stage 3. ERC Years 4 thru 6 Refine and Optimize	Stage 4. ERC Years 7 thru 10 Redefine and Mature	Stage 5. ERC Years 10+ Graduate to Sustainable Center
Ideation and Formation	Work closely with ERC Founders and University advisors to develop ideas within context of NSF ERC Guidelines. Help define ERC opportunity.	Define and develop ERC concept working closely with ERC Management Team.	Refine ERC concept working closely with ERC Management Team.	Redefine Center concept based around a vision of future sustainability.	Review and define new sustainability strategy
Member Recruitment	Secure letters of Intent from future industry members. Identify key individuals to work with.	Develop active outreach process through business connections, technical summits, outreach presentations, fliers and brochures. Tiered membership structure based on company size, varying benefits. What is a realistic IAB size.	Refine recruitment efforts with a greater emphasis on maximizing ability to retain key members.	Redefine recruitment and retention around a future sustainability strategy.	Develop connections to forge the best path into Sustainability.
Member Retention	Begin to define strategy to retain members through engagement in center activities including newsletters, websites and other informational tools.	Develop company interaction and benefits. Develop ideas around joint projects, testbeds, and other ERC opportunities.	Maximize ERC / company interaction and benefits. Cultivate interest in joint projects, involvement in testbeds, and other ERC opportunities. Value and mechanisms of establishing multiple points of contact in firms.	Redefine recruitment and retention around a future sustainability strategy.	Develop retained connections to forge the best path into Sustainability.
Commercialization of IP	Begin to define testbeds and cross project integration alongside a strategy for commercialization.	Develop Industry R&D needs alongside ERC needs in testbeds, Integrate industrial input from project inception, using project management tools (timelines, go/no-go points, cross project integration, etc.). Strategies for increasing sponsored research projects with industry.	Meet Industry R&D needs alongside ERC needs in testbeds, Integrate industrial input from project inception, using project management tools (timelines, go/no-go points, cross project integration, etc.). Strategies for increasing sponsored research projects with industry.	Redefine commercialization strategy around a future sustainability strategy.	Redefine commercialization strategy in light of sustainability path.
Intellectual Property	Begin to define strategy for IP management and technology transfer.	Develop processes for management and strategy, Technology Transfer and the Invention Disclosure. Start to identify key technology transfer staff for ERC IP management (invention disclosures, patent processing, IP marketing, etc.), the licensing process and what is really valuable to the membership.	Refine management and strategy, Technology Transfer and the Invention Disclosure process. Realistic chances of "big-hit" from IP generated revenue. Cultivate connections to key technology transfer staff for ERC IP management (invention disclosures, patent processing, IP marketing, etc.), the licensing process and what is really valuable to the membership.	Redefine intellectual property strategy around a future sustainability strategy.	Redefine IP strategy in light of sustainability path.
Innovation Strategy	Begin to identify key local innovation partners and infrastructure	Develop paths to entrepreneurship activities in the ERC and University, connecting to local, state, and regional economic development and incentive programs and role of investment groups such as Angels, VCs.	Cultivate entrepreneurship activities in the ERC and University, connecting to local, state, and regional economic development and incentive programs and role of investment groups such as Angels, VCs.	Redefine innovation strategy around a future sustainability strategy.	Redefine innovation strategy in light of sustainability path.
Education Programs	Begin to identify strategy to develop valuable education programs	Start student mentoring programs, short courses and workshops for industry, Certificate programs and distance learning models, Faculty and student exchange, Active promotion of industrial recruitment of graduates.	Refine student mentoring programs, short courses and workshops for industry, Certificate programs and distance learning models, Faculty and student exchange, Active promotion of industrial recruitment of graduates.	Redefine education strategy around a future sustainability strategy.	Redefine education strategy in light of sustainability path.

Strategy: Define and Refine

Goals	Define, Develop, Refine and Optimize
Strategy and Ideation	Define, Develop, Refine and Optimize CBiRC, Work Closely with Leadership Team
Innovation	Cultivate Innovative Culture, Entrepreneurship Course, Translational Research, Startup Companies, Innovation Partners, Angels and VCs
Education	Student Spotlights, Industry Internships, Distance Learning, Exchange, Student Mentoring, Recruitment
Member Recruitment	Industry Outreach, Summits, Conferences, LinkedIn, Connections, Site Visits
Member Retention	Newsletters, Networking, Poster Competition, Student Seminars, Technology Fair, Technology Transfer, Two-Way Confidentiality, Sponsored Research, Internships
Commercialization of IP	Integrate Industry Input, Invention Disclosures, NSF Translation Research Grants, Startup Companies
Intellectual Property	Invention Disclosure Process, Align with Offices of IPTT,