Delivering AIChE's Future RANTC

AIChE's Research and New Technology Committee (RANTC)

Presentation to NPC/Retreat

Jeff Perl Chair

John Forgac,Jim Lowes & the RANTCIDS

Fall Meeting

November 13, 2006

San Francisco CA

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RANTC v. Divisions

***DIVISIONS** (Technical Societies & Forums)*

- Lifeblood of AIChE
- Cover Relevant Discipline Areas
- Traditional Chemical Engineering Practice
- Appropriately Rigid and Firm

RANTC

- Take The Point Outside Perimeter
- Vet New Areas for Member Relevance
- Identify Complimentary Organizations
- Insertion to Divisions or Release
- Start all Over

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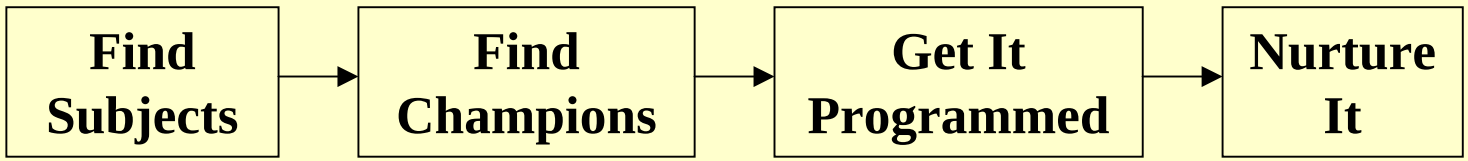
Vision

RANTC is the entity in AIChE that quickly succeeds or fails in identifying, nurturing, and deploying professionally relevant technologies that strengthen AIChE by attracting and retaining practicing professionals involved in those technologies

RANTC's Role

- Identify, introduce, integrate "fresh" areas
- Success through action and stewardship



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RANTC Activities

- Finding “fresh” subjects & champions
- Co-Sponsoring Events
- Programming as Group 18j
- Working with the entities and stakeholders *such as the EBPC, MPCs, Chairs, etc.*
- Getting subjects into the program

Organization, Structure, Operation

- Leadership - RANTCIDS
- Network of Diverse Interests
- Action Oriented
- Experimental in Approach
- Informal but Disciplined Style

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Organization, Structure, Operation

- RANTC Organization
  - Jeff Perl - Chair
  - Sharon Robinson - Vice-Chair
  - Bob Hoch
  - Jim Lowes
  - John Forgac
  - Knowledge Stewards <---- NEW
    - Bond Calloway – Energy
    - Marco Castaldi - Green
  - Joe Cramer – Staff Liaison

New RANTC Elements

- Broaden Group Participation
- Knowledge Stewards
  - Energy – Requested by John Chen
  - Green Manufacturing/Sustainability
  - Other Overarching Steward Areas?
  - Avoid Conflicts
- Website

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RANTC's Objectives

- Implement our pipeline of topics
- Expand active RANTC membership
- Integrate successful RANTC programs
- Keep the pipeline full of "fresh"ideas
- Strengthen communications

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RANTC's Program Pipeline

Delivered

- Microreactions/ IMRET
- Bioinformatics
- Air Force Program
- Computational Chemistry
- Sustainability/ Life Cycle
- Information Databases
- Fuel Cells
- Nanotechnology
- Secure Plant Design and Operation

In Progress

- Financing New Ventures/ Nanotechnology
- Sensors Topical
- Information Technology in Chemical Engineering Topical
- Green Chemical Engineering Topical
- Process Intensification and Microreactions Topical
- Electrodeposition of CU for Microelectronics Topical
- Molecular Computing Topical
- Modelling of crystalization processes
- Incorporating New Technologies into ChemE Education
- Commercializing New ChemE Enterprise Topical
- Virtual experiments
- Polyfunctional Ligands for high reaction and separation

Future

- Electronic Materials
- Bio-microelectronics
- Bioseparations
- Mammalian Cells and Scale Up
- Medical Implant Materials
- Endocrine Disruptors
- Energy NEW !

- Get Involved

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What does RANTC want/need?

- Enthusiastic support
- Stronger relationship with CTOC
- The opportunity to fail
- Budget – to bring in key people
- Freedom from excessive regimentation
- A process for “graduating” subject areas

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RANTC Local Section Survey Results

- Air Pollution Control
- Alternative Energy
- Biochemical Engineering

Atlanta Spring 2005
RANTC Topicals

- Entrepreneurism
- Process Intensification & Clean Technology
  TOPICAL REPEATS
- Bioinformatics & Functional Genomics
- 4th Nanoscale Science & Engineering
- Envisioning Biorefineries: Chemicals and Materials from Renewable Feedstocks Sensors
- Electrodeposition Processes in Semiconductor Device Fabrication
- Women in Management
- Fuel Cells
- IT in the CPI

Atlanta Spring 2005
RANTC Sessions

- Pharmaceutical Water Technology I & II
- Ionic Liquids
- Sensors: Real Time Sensors for Explosives and Biological Agents
- Innovation in Process Intensification I-II

Cincinnati Fall 2005 RANTC Topicals

Topical **All Repeats**

- Bioinformatics & Functional Genomics
- 4th Nanoscale Science & Engineering
- Envisioning Biorefineries: Chemicals and Materials from Renewable Feedstocks Sensors
- Electrodeposition Processes in Semiconductor Device Fabrication
- Women in Management
- Fuel Cells
- IT in the CPI

Cincinnati Fall 2005
RANTC Sessions

- Sessions **Repeats**
- Incorporating New Technologies into ChemE Education
- New Technologies for Experiments over the Internet

RANTC's Role

- Identify, introduce, integrate emerging topics and subject areas
  - Broad boundaries on "fresh" subjects
  - Cooperate with CTOC and the NPC
  - Practice stewardship
  - Provide a "foster home" for fresh subjects
  - Address: How to find a home?
  - Move fast, make it happen, deal with surprises

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History

- RANTC was formed after the 1993 Annual Meeting, formally at the 1994 Spring Mtg, as the merger of the R&D Committee and the New Technology Committee (NTC)
- The parent committees had been around for many years
- Strategy of NTC, meticulously developed, was adopted -- Paul Wieber's leadership a key factor

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RANTC
Going Forward

- Some Divisions Have Formal Liaisons
- Looking For New RANTCIDS
- Come to RANTC Meeting
  - 1-5pm Monday November 13 Hilton
  - Union Square 11 (4th Floor)

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QUESTIONS ?

See You Monday Afternoon