

Key Skills Analysis: The Right Skills in the Right Place at the Right Time

*In-Sourcing vs. Out-Sourcing
vs. Critical Mass Concentration*

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Thought Flow for Today

- **How do you determine what are the “right skills”?**
 - **Key Skills analysis**
- **How do you determine what is the “right place”?**
 - **In-sourcing**
 - **Out-sourcing**
 - **Internationalization**
- **How do you know what is the “right time”?**
 - **Making this a “living process”**

DISCLAIMER:

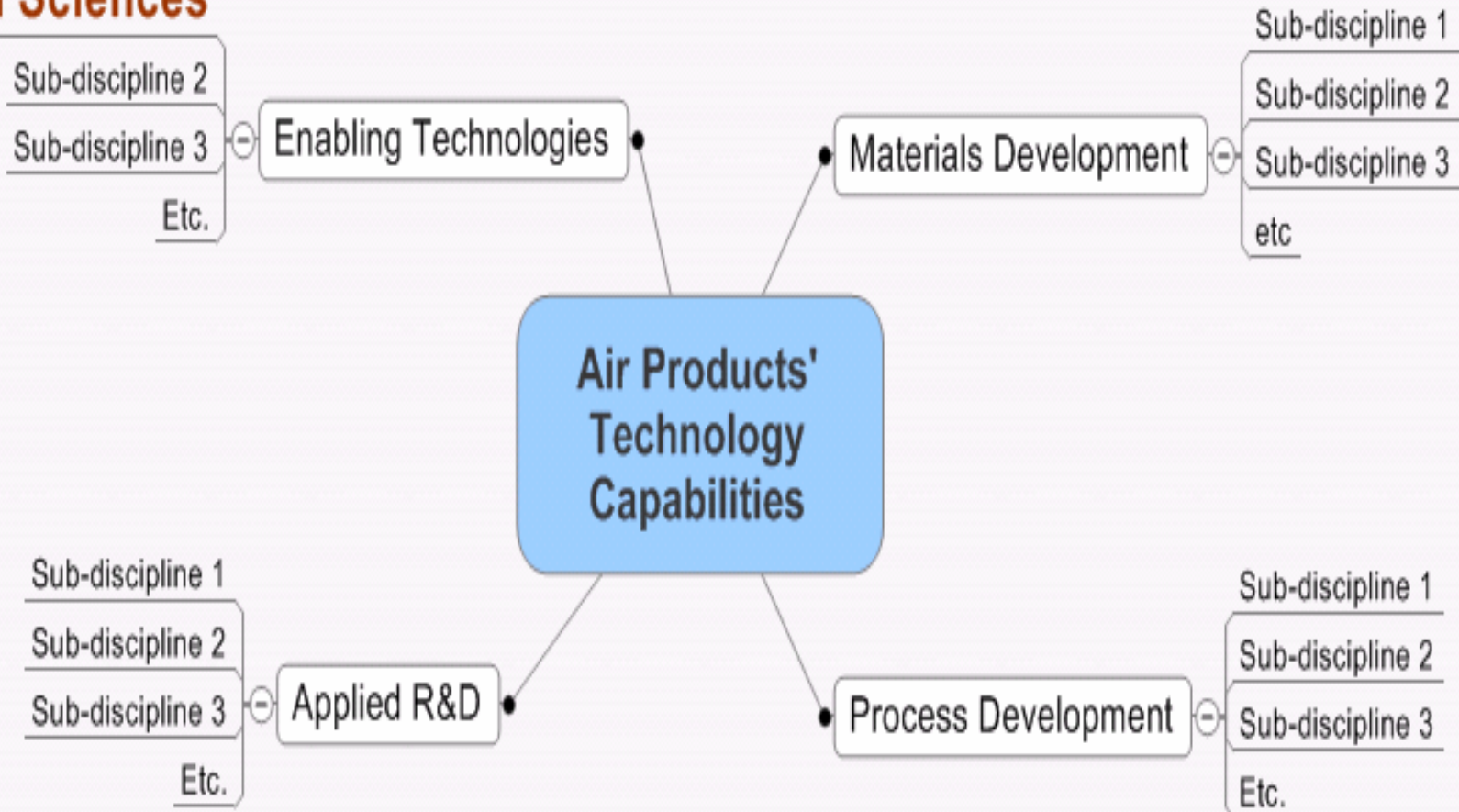
I could talk for days on this.
I'm presenting only a high
level overview to spur
thinking

Our Approach to Key Skills Analysis

- **Formal, technology-wide process**
- **Integrated across the company with the business planning cycle**
- **A small number of “high level” Key Skills champions look for those touch points**

A Generic Key Skills Layout

Analytical Sciences



Key Skills Analysis

- **Begin with the assumptions**
 - **On the business**
 - **On the markets**
 - **On the program portfolios**
 - **Key sources of technical differentiation**
- **The assumptions tell you what you need**
- **You know what you've got**
- **Identify the gaps and plans to fill them**
- **Output includes the assumptions, needs grid, gap-closing plans**

Yes, it always sounds simple at the 50,000 ft level!

Where to Expect Roadblocks

- **Business “vision” too incremental and short term**
- **Lack of appreciation for “induction time” required to build capability**
- **Ebb and flow of projects affects utilization of different capabilities**
- **Balance of cost control vs. “baseline” of needed capability**

Where Client Alignment is Critical

- **Baseline capability to retain internally and where**
- **Capital plan**
- **Where to locate people and equipment**
 - **Physically**
 - **Organizationally**
- **Role of analytical in supporting client-use instruments**
- **Integration of analytical personnel onto project teams**
- **The interconnection between all of these items is crucial**

Staffing Dynamics

- **Less focus on “run and return”; more focus on analytical strategy/insight**
 - Improvements in instrumentation
 - Client “self serve”
- **Change in project portfolio toward new materials development**
 - More complex systems
 - More performance-driven insight
- **Retirement bubble: opportunity or challenge?**

The Answer is "Balance"

- **Hire experts from the outside**
 - **Overlap with retirees is nice but costly**
- **Hire promising new graduates and train them**
 - **Particularly when new skill sets are needed**
- **Invest in training/retraining existing staff**
 - **Sometimes significant retraining is still cheaper and faster than going outside**
 - **Don't over look more experienced employees**
 - **Don't over rely on this! Know the true potential of your staff**

Where is “the Right Place”?

Key Questions:

- **What capabilities do our clients need to access almost daily?**
- **What do they need to be able to access locally on occasion? (Speed or cost driven)**
- **What needs to be kept in house for proprietary or complexity reasons?**
- **How quickly is information needed?**
- **What is the “value proposition” of your Analytical Group**

Our Roles:

- **Client lab and “walk up” capability**
 - Assist in spec'ing equipment
 - Training and maintenance in walk-up labs
 - Methods development and implementation
 - Assure data consistency between labs
 - Assist in data interpretation as needed
- **Local out-sourcing**
 - Identifying and qualifying vendors
 - Methods transfer and consistency
 - Act as the firewall between the data they gather and the “context” of interpretation
 - Make the process transparent to our clients

Our Roles:

- **Global Analytical Sciences “central” capability**
 - **Rapid, cost effective “routine” analyses**
 - **Sophisticated analytical techniques and the know how to combine them to gain unique insight**
 - **Experience and depth of knowledge to solve the “wicked” problems**
- **And Internationalizing?**
 - **All these same rules apply**
 - **Staff initially with an analytical generalist who can answer the three questions and implement**

Making This a Living Process

- **Articulate those key assumptions!**
- **Validate them annually**
- **Change your plan based on how those key assumptions change!**

Thank you

tell me more . . .

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