Minas Apelian, Ph.D.

Vice President - Innovation and New Product Development
Huber Engineered Materials
J.M.Huber Corporation

Biography

Minas Apelian, Ph.D., is the Vice President of Innovation and New Product Development for Huber Engineered Materials, a division of J.M. Huber Corporation. Dr. Apelian leads a team of over 50 employees in driving innovation and business growth. He brings a unique balance of scientific and business acumen to his role. His experience includes extensive knowledge of business planning, materials processing, statistical analysis and process technologies.

Lloyd Switzer Director Strategos

Biography

Lloyd Switzer is a Director with Strategos. Strategos is a Strategic Innovation firm focused on driving innovation and innovation capability with their clients. Lloyd's work at Strategos has focused on assisting clients with their innovation and strategy development processes. His work in this area has reached across multiple industries including specialty chemicals, consumer products, pharmaceuticals and aerospace.



Strategy Innovation – Driving Growth through an Ongoing Learning Process

Minas Apelian, J.M Huber Corp Lloyd Switzer, Strategos

J.M. Huber Corporation

- Broadly diversified multinational portfolio:
 - Engineered materials
 - Natural resources
 - Technology-based services
- 70 locations in 20 countries
- > \$1 billion in annual sales
- > 3,250 employees







Huber Engineered Materials Capabilities Serve a Range of Market Applications

Specialized Materials

Pharmaceutical Excipients, Personal Care Additives, Advanced Flow Aids, Food Carriers, Nutritional Supplements

Silicas & Silicates

Oral Care abrasives & thickeners, paper additives, paint, food, and elastomer applications

Hydrocolloids

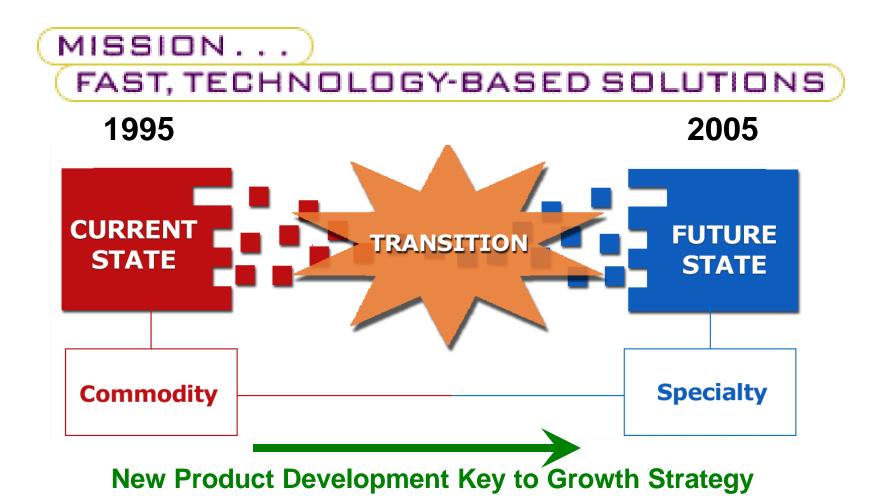
Rheology agents, stabilizers, and disintegrants for food, pharmaceutical, personal care, and industrial applications

Kaolin Clay Opacifying structured pigments for paper and paint, surface modified grades for wire & cable

Calcium Carbonate

Calcium carbonate for nutritional applications as well as paper, elastomer, paint, and other industrial applications

Huber's Mission for the 21st Century

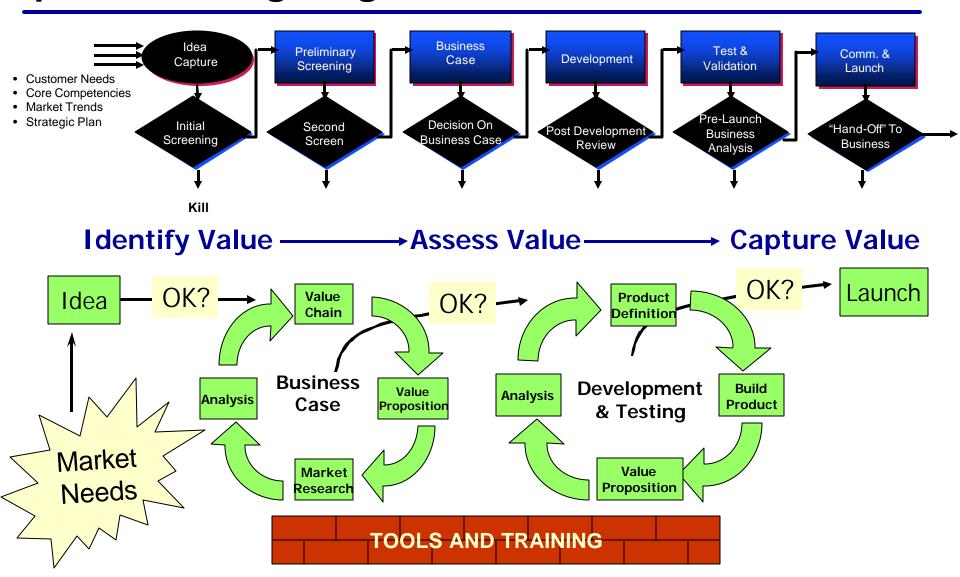


Huber has made large investments in innovation to drive growth

- Established a clear organizational focus around New Product Development
- Developed strategies for the business to direct the growth activities
- Improved processes implemented along with training to build skills

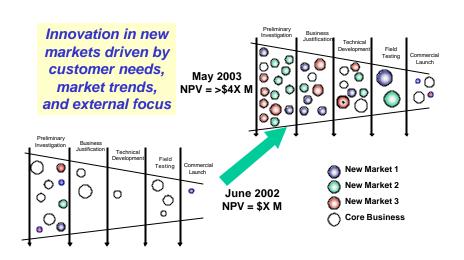
Objective was to drive growth in a set of target markets

Our growth engine was a market-driven NPD process using Stage-Gate & needs-drive ideation



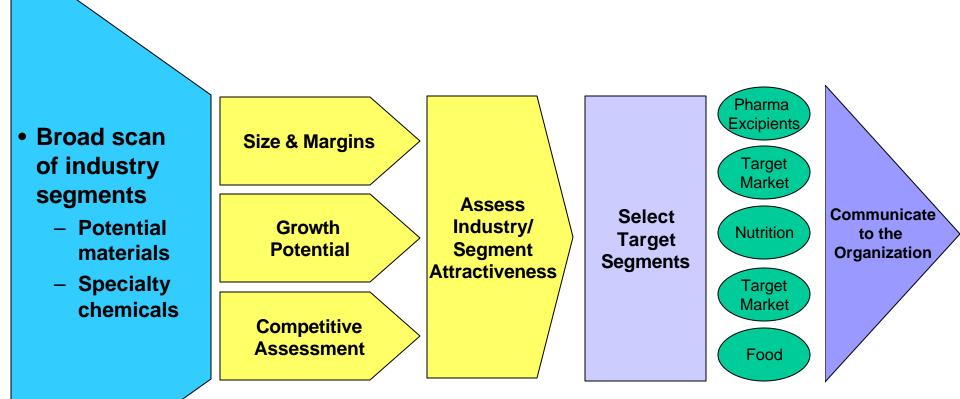
We made some good progress and got some good results, but something was missing...

- ✓ Market driven vs. Product driven NPD
- ✓ Formalized stage-gate process
- ✓ Link ideation to discovery
- ✓ Leadership involvement
- ✓ Rigorous portfolio reviews



- D Hard to see connection between strategy and projects (is this a good opportunity for us?)
- D Conflict between near-term business needs and longer-term aspirations

Our approach to strategy development focused on industry segment analysis

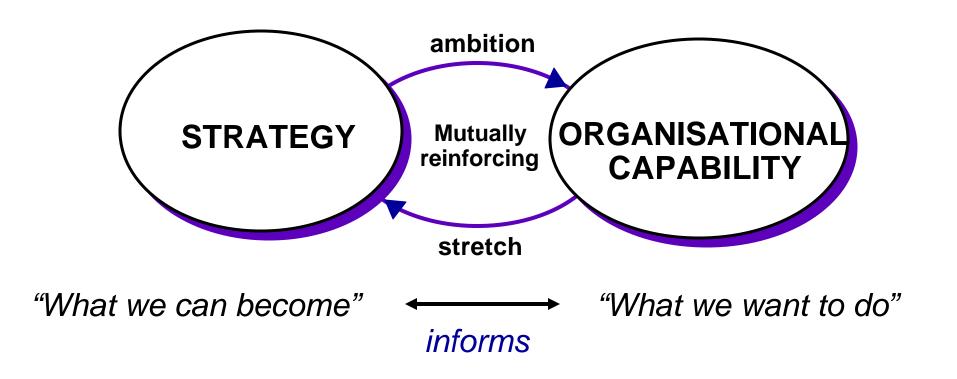


Our approach to strategy also had some issues...

- Strategic differentiation
 - The strategy was too convergent with competition
- Discriminating value
 - The strategy did not help *enough* in making choices
- Future-oriented
 - Our strategy was more "backward looking"
- Strategy as a dynamic process based on learning
 - Our strategy was a fairly static plan

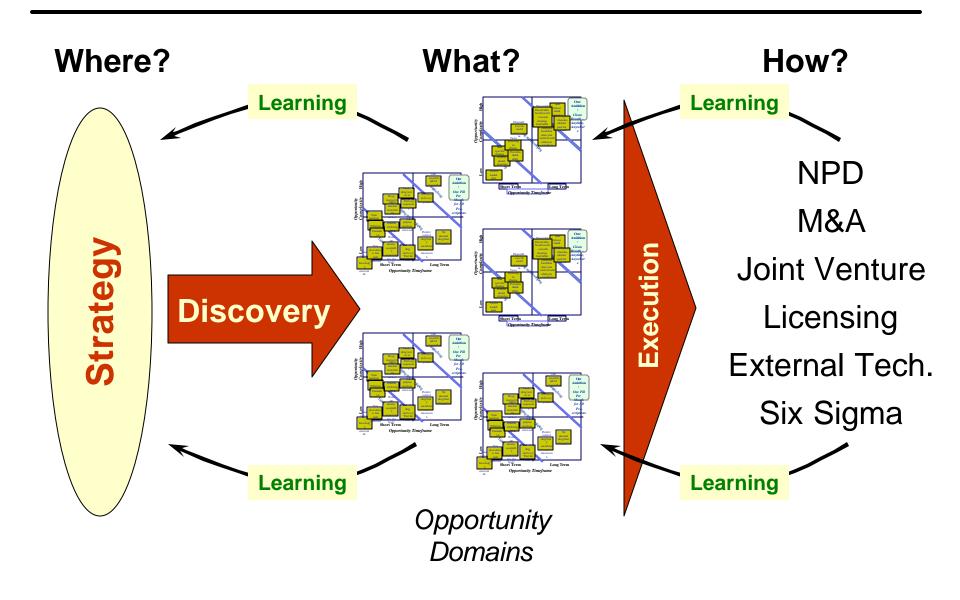
Strategy did not help direct innovation efforts

The key was recognizing that strategy is an on-going process...

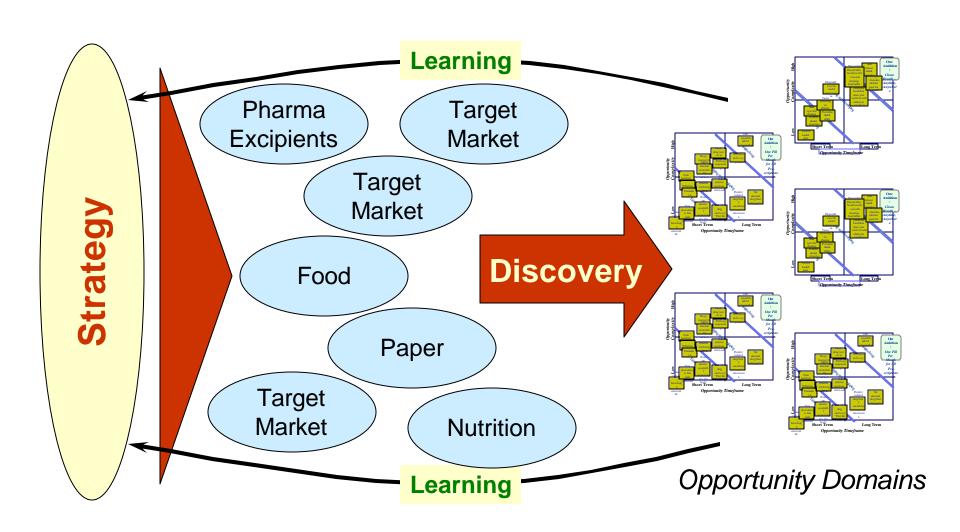


... that must link to innovation efforts

We re-configured our strategy and innovation process to get clearer linkages



More closely linking our strategy to opportunity domains helped with focus and learning



What we've changed: New Discovery as a basis for our strategy (and new opportunity) development

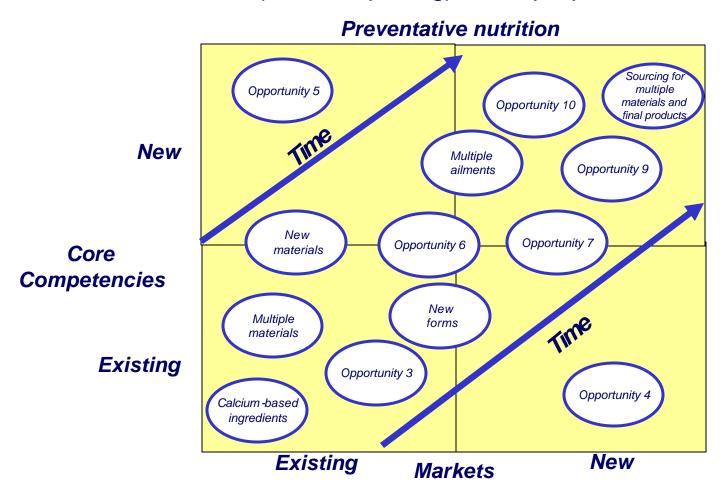
"If you want to get new answers, you need to ask new questions."

	The "usual" questions	Some new questions
Customer:	 VOC – what does the customer tell us they want? 	 Customer enthnography – how does the customer behave, and what does that tell us about unarticulated needs?
Industry:	 Where are the growth industries? What are the "best practices in terms of servicing those industries? 	 What are the <i>ignored</i> industries or segments? What are the conventions we might overturn in serving industries/segments?
Company:	 What technologies or products do we bring to bear? Who can we serve with those? 	If we view ourselves as a set of capabilities, what might we go do differently?

New discovery and perspectives form the basis for a new and differentiated strategic conversation

What we've done: Domains help us both broaden and better define our strategic story

Domain: A series of potential opportunities or actions that add up to a broader (and compelling) value proposition



Better
defines the
broad
strategic
space, how
we want to
play, and our
ongoing
growth and
learning
agenda

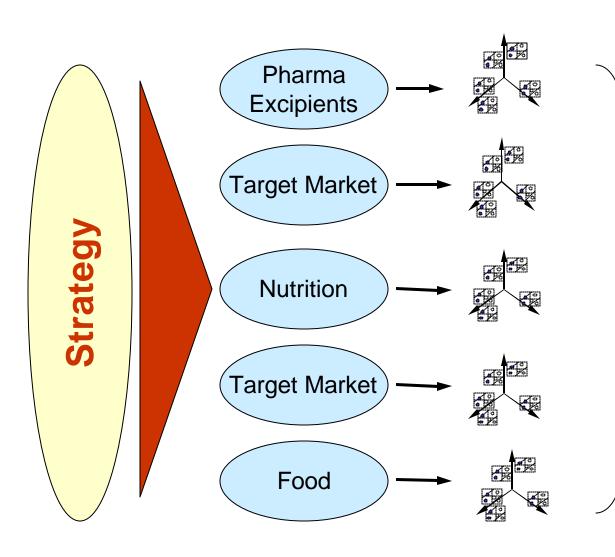
Domains shift the evaluation from single projects to opportunity families

- Domains set a strategy for commercializing a common high-level value proposition
 - links a series of related innovative opportunities to grow the business
- Explicitly link competency development to the growth opportunities and assess leverage
- More effective portfolio/resource management
- The ability to pursue a value proposition w/a range of opportunities reduces risk

We have shifted our view from opportunity pipelines to strategic maps

A set of opportunities at varying ... to a set of domains that stages of development ... set a path to deliver value ... Domain 3 Domain 1 Domain 2 Domain 5 Domain 5 Multi-functional Materials ... to a strategy supported by domains along each growth dimension. **OTC** Specific Health Prevention Needs

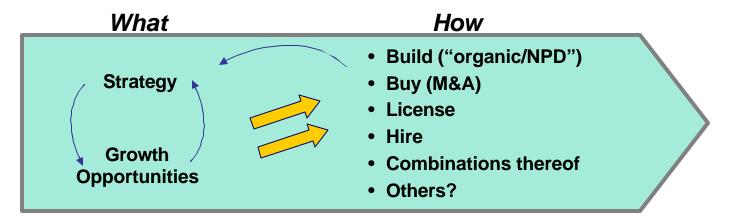
And we have began asking a new set of questions about the portfolio and strategy



- What are the growth drivers in these markets?
- Have we identified enough/adequate opportunities?
- How are these opportunities progressing?
- Do we have the right level of resources/investment deployed?
- Are we developing the needed capabilities/competency?
- Are these areas attractive?
 Is our strategy valid?
 Does it require revision?

Strategy, opportunities, and execution are now one process with multiple feedback loops

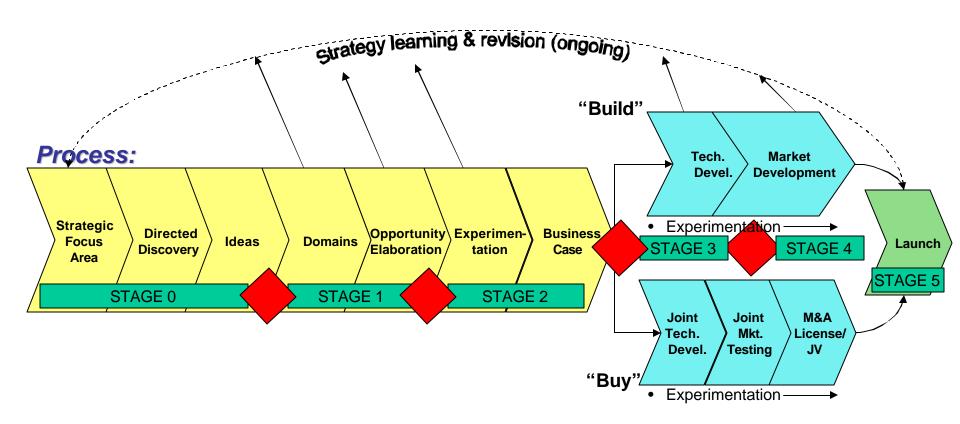
Market Driven Innovation Process



Implications:

- NPD and M&A now a single process: Market Driven Innovation
- Decisions on potential acquisition targets now largely based on growth
- Learnings from innovative opportunities are fed back to the strategy (and revises the strategy as appropriate)

A closer look at how we've changed the process



Strategy, new opportunities, and how to pursue the new opportunities are now one continuous and iterative process.

Strategy = new learning!

What's changed, and how has it helped?

Old

- Disconnect between our strategy and our actions
- Strategy did not have enough discriminatory value
- Innovation and NPD learnings did not work to revise the strategy
- Difficulty executing on transformational opportunities

New

- Tight linkage hard work to execute this, but generating tangible returns
- Strategy is now a tool that guides discussions about what opportunities are in vs. out
- Innovation learnings are continuously refining and revising the strategy
- Sharpened and broadened strategy "creates space" for broader exploration and bigger opportunities

Lessons learned

- Innovation and strategy must be explicitly linked
 - One informs the other and vice versa
- This is easy to say but hard to do!
 - Not just new processes, but new skills and new behaviors are required
- Leaders need to learn how to manage a new type of growth conversation
 - It's not just "the organization" that needs to learn
- Executive sponsorship is key
 - Someone has to start the ball rolling
- Expect it to feel like an "unnatural act"
 - New learning, coupled with breaking conventions makes it that way