



About

- Fortune 500 pharmaceutical company
- Annual Revenue above \$40B
- Over 75,000 employees worldwide

Goals & Business Issues

To support the goal of developing innovative products that improve the health of people around the world by reducing product development cycle time and increasing the number of products brought to market.

Solution

- Effectively identify, combine, and leverage expertise (internally and externally)
- Decrease decision bottlenecks to bring products to market more quickly

Results

- Expertise became more visible across the network
- Decision-making was pushed down the hierarchy
- Cycle time was reduced by 18% from idea generation or discovery to product testing
- The number of new products in the pipeline rose

Executive Summary

The ability to innovate is central to the success of most organizations today. Due to shorter development cycles, the breadth of expertise often required, and smaller budgets, innovation must be faster and more effective as time goes on. The VP of R&D for a pharmaceutical company sponsored an organizational network analysis among his leadership team to better understand where silos existed, how expertise was tapped, and what improvements could be made to speed up the innovation process.

Challenge

Most innovations occur through the combination of different perspectives and skill sets and not through a single brilliant idea. Instead of forming serendipitously, these networks should be nurtured to help connect those with the right expertise inside or outside of the organization, and those with the right influence to help get things done. This allows the organization to react quickly to opportunities by drawing on the right expertise, as well as driving new products and services through to roll-out.

- Remove silos across locations, functions/divisions, competencies, and roles, to optimize the flow of ideas, improve effectiveness and efficiency, and spur innovation.
- Ensure that ideas are not dominated by a few central, outspoken (and typically senior and high-tenured) employees.
- Evaluate excessive reliance on those with technical expertise that was less relevant for future strategic directions. Identify key susceptibilities by capability domain and where insufficient access to these experts might slow innovation or best practice transfer.
- Accelerate decision-making by changing the consensus-driven culture, which resulted in network gridlock when trying to move a new product through the development process.



Solution

Applying a network lens helped this company to identify specific areas where innovation was breaking down. The ONA assessed information flow, new idea generation/problem-solving and decision-making interactions.

The heat map below showed the degree to which different groups within one function were relying on each other. There were several intersections, particularly Clinical Research and Research Planning & Integration, where people from each function wanted more of each other’s time, but were unable to obtain it due to working constraints. Instead of working together, the groups worked sequentially, resulting in a lack of understanding and “buy-in” of innovations. Existing brokers were identified— people who already had formed relationships across these two functions—to quickly foster innovation and best practice transfer. Key connectors and brokers in all groups were also identified, and where there was a need for additional collaboration, liaisons were identified with specific objectives for sharing information and best practices.

| | # People | Clinical Research | Research Plng & Intgtn | Global Quality | Medical Strategy | Sciences | Prdct Mgmt | Regs | Sppt Ops |
|-----------------------------------|----------|-------------------|------------------------|----------------|------------------|----------|------------|------|----------|
| Clinical Research | 48 | 3.2 | 0.8 | 0.0 | -0.6 | -0.4 | -0.1 | -0.2 | -0.3 |
| Research Planning and Integration | 29 | -0.2 | 5.7 | -0.6 | 0.2 | -0.9 | 0.8 | -0.3 | -0.5 |
| Global Quality | 34 | -0.5 | -0.7 | 1.5 | -1.0 | -0.3 | 0.5 | -0.6 | -0.7 |
| Medical Strategy | 22 | -0.1 | -0.6 | -0.9 | 2.8 | -0.1 | -0.5 | -0.8 | -0.2 |
| Sciences | 35 | -0.6 | -0.8 | -1.0 | -0.6 | 3.8 | 0.1 | -0.5 | -0.2 |
| Product Management | 27 | -0.7 | 0.4 | -0.2 | -0.7 | -0.7 | 1.4 | -0.7 | -0.7 |
| Regulatory | 54 | -0.3 | 0.1 | -0.7 | -0.6 | -0.7 | -0.4 | 1.6 | 0.1 |
| Support Operations | 19 | 0.7 | -0.3 | 0.5 | -0.4 | -0.7 | -0.3 | 0.1 | 3.4 |

Note: This chart compares actual to expected values for collaboration based on the average number of relationships across the network and is normalized for group size. A value > 0 indicates higher than expected levels of collaboration, 0 indicates collaboration is exactly at expected value, and a -1.0 indicates that no collaboration exists.

The network analysis revealed that several highly central people who held similar expertise in the R&D function were key in the decision-making process for new product development. These people had very successful careers working for the company for upwards of ten years. However, the younger scientists with the latest training were having trouble assimilating into the company (the analysis showed that it took people almost five years to build a robust network). This posed the problem of an innovator’s dilemma, when a small number of people who were important developing past solutions were overly influential in determining the direction of new opportunities requiring emerging expertise.

The dashboard view below shows the top 20 connectors. Most people in this group had more than 10 years of tenure. The red line across the bar chart is drawn to show where more than 25% of the people who rely on them indicated that they needed even more of their time. These people are more difficult to access in a timely manner and may be bottlenecks. In some cases, they were depended heavily upon because they held critical expertise.



| Name | # Effective Incoming Ties | Function | Tenure | % People Who Turn to This Person to Problem-Solve | % People Who Turn to This Person for Decision Making | % People Who Need More Access |
|----------|---------------------------|-------------------------|----------|---|--|-------------------------------|
| James | 79 | Research Plng & Intgrtn | 10+ yrs | 65% | 22% | 17% |
| Peter | 70 | Sciences | 5-10 yrs | 81% | 35% | 42% |
| Jennifer | 65 | Product Mgmt | 10+ yrs | 62% | 28% | 37% |
| Michael | 64 | Product Mgmt | 10+ yrs | 62% | 18% | 19% |
| Sarah | 61 | Clinical Research | 5-10 yrs | 65% | 20% | 35% |
| David | 59 | Global Quality | 3-5 yrs | 70% | 15% | 21% |
| George | 54 | Sciences | 10+ yrs | 67% | 20% | 12% |
| Linda | 52 | Medical Strategy | 5-10 yrs | 70% | 21% | 28% |
| Victor | 48 | Sciences | 5-10 yrs | 61% | 8% | 11% |
| Charlie | 44 | Global Quality | 10+ yrs | 51% | 11% | 8% |
| Julio | 43 | Sciences | 10+ yrs | 59% | 9% | 33% |
| Tony | 42 | Research Plng & Intgrtn | 10+ yrs | 53% | 18% | 7% |
| Rohan | 42 | Product Mgmt | 5-10 yrs | 58% | 31% | 19% |
| Greg | 41 | Support Ops | 10+ yrs | 59% | 27% | 5% |
| Vikram | 40 | Medical Strategy | 10+ yrs | 63% | 40% | 36% |
| Amanda | 39 | Sciences | 3-5 yrs | 49% | 11% | 28% |
| Andy | 39 | Support Ops | 10+ yrs | 56% | 21% | 12% |
| Connor | 38 | Research Plng & Intgrtn | 5-10 yrs | 62% | 13% | 31% |
| Guilio | 37 | Research Plng & Intgrtn | 10+ yrs | 42% | 9% | 5% |

Results

On the basis of the ONA, the pharmaceutical company decided they must create the capability to rapidly explore and test new opportunities with minimal bureaucracy. They built a skill portal, and pre-loaded it with the skills employees had indicated from the survey that they possessed and were willing to train others on. From there, employees were responsible for maintaining their profile, and the projects that they had worked on. Regular sharing sessions were instituted for complementary competency centers to connect experts and promote best practice transfer.

In an effort to generate more ideas, several cross-expertise points were identified that were likely to produce breakthrough innovations, and integration teams were formed to explore the market potential of the proposed ideas.

To improve the decision-making process, two key steps were taken. First, instead of involving the entire management team, sub-groups were formed around specific issues and challenges, often led by a highly capable, newer employee. When input on important decisions was needed, they reached out to the broader group with a contained timeframe. Second, the less critical decisions were pushed down the hierarchy (i.e. purchase approvals, etc.) freeing the time of upper management.

To ensure sufficient access to expertise, the company established secondary “go-to” people. These people sometimes required additional training, and experiential learning, and a redefinition of responsibilities. Experts were asked to create FAQs to help reduce their load for the simpler requests. Both these steps were important to retain these core experts as well as improve the resiliency of the organization if they left the company.

Within one year, these changes reduced the cycle time from idea generation to product testing by 18%, and increased the number of new products proposed.