

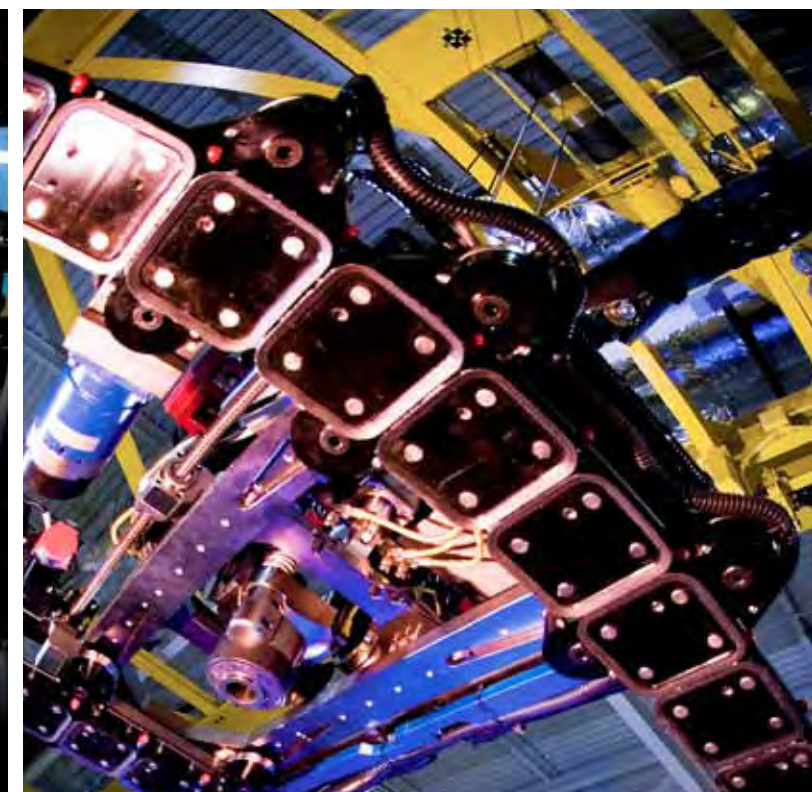
Valuable thoughts

What Boeing is doing to get the most from a key asset—
intellectual property

By Candace Heckman

“Boeing spends billions of dollars on research and development, and the company must be able to both recover and maximize the value of these investments.”

— Luis Valdes, director of Business Development and Licensing



Perhaps even more than its physical products and services, Boeing's inventions, collective know-how, information, images, ideas and brand—that is, its intellectual property—are among the company's most valuable assets. Using Boeing's intellectual property wisely in developing and improving new products and services, as well as leveraging how it is used by others, is critical for the company.

Frontiers spoke with Martha Ries, vice president of Boeing Intellectual Property Management, and Luis Valdes, director of Business Development and Licensing, to better understand how the company extracts the most value from its innovation.

How does the company determine the value of its intellectual property?

Ries: We are really talking about three types of value. The first is the intrinsic value

of whatever product we're manufacturing or service we're offering—the innovative materials and the way we make them for the 787 Dreamliner, for example.

Then, there is the value of the IP to the company—can the idea, information, invention be used or repurposed in another area of the company? We've got a strategy to guide this effort, and it's how we can get a bigger bang from our buck.

Third, Boeing's IP more often than not will have value to others—our customers, suppliers, competitors. This is where our ability to license the IP comes in. The business models we create around third-party licenses have huge revenue potential.

Valdes: Boeing has a lot of IP to offer for licensing, and we are already adding millions of dollars to annual earnings. But the company has only scratched the surface.

There is big demand by others to use our IP—primarily because it's cheaper for another company to pay Boeing to use our IP than it is creating the IP themselves or investing in an alternative.

How can Boeing control entities that don't ask to license its technology, but just take it?

Valdes: Unfortunately, we often find these situations—for instance, when others manufacture parts or perform modifications to Boeing products without our permission. When it comes to asserting Boeing's IP rights, there are really two ways to go: one, legal action; or two, we can knock on their door with a licensing contract. Sometimes legal action is the best recourse. But the opportunity to recover the value of our intellectual property through licensing is often better for Boeing's relationship with

the alleged infringer, who could be an existing or future customer or supplier.

If we are creating the intellectual property to build our own products, why would we allow others to use it?

Valdes: There will always be some intellectual property that Boeing will choose not to share. And that knowledge and information we will guard zealously, because if we didn't, we could lose our competitive advantage.

That said, there is a fair bit of our IP that is both protected and already out in the open, like published patents. Look at technology like Flex Track [a portable, automated machine for precisely drilling contoured and flat surfaces], which has value outside the aerospace industry. Or consider the 787 simulator, which we now license. Competition in technology innovation is fierce, and

if we come up with some revolutionary way of building an airplane, that doesn't mean someone else won't have the same or better ideas. Licensing also enables global alliances that create partnerships not only for business but also for new discoveries.

What's the connection between licensing and new discoveries?

Ries: The point of patents is to encourage inventors to share their ideas without fear that someone will steal them.

But when Boeing licenses its inventions, it also lets others build upon our technology. When that happens, we can get the benefit of what others create. This is another way Boeing can control who uses an invention, and for what purpose. And, in most cases, this allows the company to collect royalties, which, at a basic level, is how we can recover the enormous investments made

toward research and development.

Valdes: Boeing spends billions of dollars on research and development, and the company must be able to both recover and maximize the value of these investments. The return we make on this investment helps determine how much money we can continue to put back into research and development. ■

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PHOTOS: (Far left and above left) Martha Ries, left, and Luis Valdes oversee Boeing's efforts to get the most value from its innovation—including licensing developments such as the 787's simulator. **(Above)** Another example of licensed technology is Flex Track, a Boeing-developed machine for precise drilling. BOB FERGUSON/BOEING