Lessons From Reinhard: Economy of Thought – Simple Solutions in a Complex World

by Cara Martin

One of Reinhard's favorite phrases was "Elegant Solution." If you were working with him on something and were lucky enough to have him say this to you, you knew you were on to something important.

Reinhard prescribed to the economy of thought – finding ways to simplify a complex idea in order to better and more clearly understand it. More than that, he strived for efficient problem solving, much like he strived for efficient heat pump and system solutions throughout his career. Unnecessary steps, task redundancy, and overcomplicating the problem can lead to wasted time and effort.

As a professor, he was adept at breaking down concepts, using a common language to explain and work through a challenging problem. He readily used quick math tricks and simple rules of thumb to make assumptions while working through a problem. While these were never perfect, they kept the thought process streamlined and straightforward, leading to a solution in the right direction with minimal mental effort. While much of our world is deeply complex, he recognized the power in identifying simple, elegant solutions.

When complexity was required, Reinhard loved the opportunities generated through optimization. Let the computer take on mundane, repetitive tasks, number crunching through various solutions seeking a better alternative. The engineer then has their mental capacity to apply what the computer cannot – creativity, intuition, and curiosity.

The principle of economy of thought is consistent with other elements of Reinhard's character. Using mental shortcuts was never about thinking less – it was about thinking well, applying efficiency, and being strategic in the approach. By focusing on what is most important, one can create countless opportunities and achieve so much more than they might if they are bogged down in less important repetitive details.

Stuck on a complex problem these days? Take a minute to examine it from a wider lens. Where are you overcomplicating things? How might you simplify the problem? What's really at the root of the issue?

Think of Reinhard and apply some economy of thought.