

IS ENGINEERING A COMMODITY?

CIM GTA WEST

MARILYN SPINK, P.Eng.

February 7th, 2018

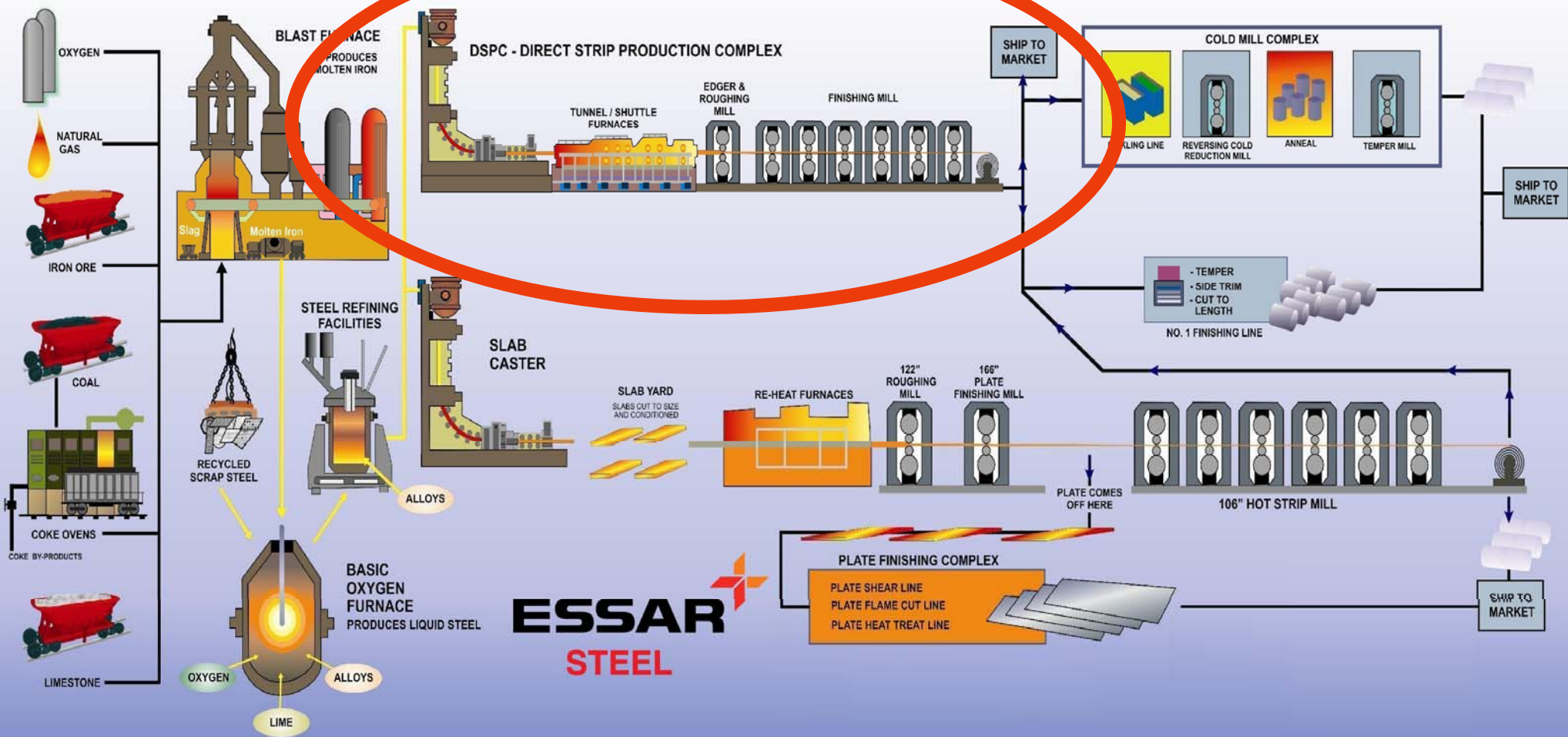


MAKING AMERICA STRONGER
THAT'S HOW WE ROLL



 **GALLATIN STEEL**

The logo for Gallatin Steel is circular. It features a detailed illustration of a horse's head and neck in profile, facing left. The horse is rendered in a metallic, reflective style. The text "MAKING AMERICA STRONGER" is arched across the top of the circle, and "THAT'S HOW WE ROLL" is arched across the bottom. Below the circle is the Gallatin Steel logo icon, which consists of a stylized 'G' and 'S' intertwined, followed by the text "GALLATIN STEEL".





EL-FOULADH







SPEED KILLS

MEGAPROJECTS AROUND THE WORLD FAIL BY A STAGGERING 65%. RESEARCHER ED MERROW BELIEVES THAT SLOWING DOWN AND UNDERSTANDING WHERE PROBLEMS LIE WILL HELP GET THESE PROJECTS BACK ON TRACK.

BY ALI KLAVER

At the IPMA World Congress in Brisbane, Ed Merrow, President of research firm Independent Project Analysis (IPA), told delegates that big projects are having a rough go for a number of reasons.

"First, many of the projects proceed without having settled some of the most important political and social issues associated with the projects. Sometimes the partners are not aligned around how they will fund and execute the project, leaving project directors to try to sort out issues that are usually far beyond the remit of the project manager."

Preparation for megaprojects is the also a fail point. According to Merrow, most teams are inexperienced with working on projects of significant size and complexity and are just not properly organised to attack problems on this scale.

"The sheer amount of work that has to be completed on the front end, combined with our global shortage of first-rate project management personnel, means that teams are frequently understaffed and fail to complete the needed front-end work."

Clear vantage point

To get a grasp on the enormity of the problem, Merrow's presentation at the IPMA Congress showcased some interesting figures in an effort to redefine project management (his recent book *Industrial Megaprojects: Concepts, Strategies, and Practices for Success* has more extensive detail on this subject).

In a typical year, 600-700 new projects are added to the databases at IPA. About 10 per cent of these fall into the very large category with well over \$1 billion in capital. Adding fuel to the fire is the fact that the number of these very large projects has increased dramatically over the last decade. 🔄

Is Engineering a Commodity??

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NO

Because Engineers build the world we all want to live in!



VOICES

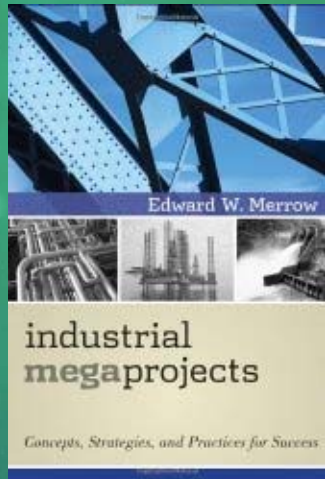
Can companies resist the temptation of making the same mistakes in the face of an inevitable up cycle?

By Lawrence Devon Smith | February 01, 2017



Metal prices are going to go up. We know this because we are five-plus years into one of the longest downturns in a hundred years, and history has taught us that downturns are followed by upswings. We expect this because demand in China, although down from its peak, is still growing. We hope for it because we need it. Yet the mining industry does not appear to be preparing for it.

Mining companies have dispersed their engineering and capital projects groups, EPCM companies have cut their staffs to the point of eliminating teams, and centuries of experience have disappeared as baby boomers have retired. In the executive suites, finance and accounting qualifications have dominated as senior management has had to focus on cutting costs, paying down debt and making their balance sheets look strong. Furthermore, we have continued to deplete our reserves throughout the downturn but have failed to find new projects through exploration, and we have not been developing the major new projects which have been detailed in studies that are now gathering dust on our shelves.



Now back to the critical question: Will your megaproject be a success or a failure? The answer is . . . it depends. It depends on whether you can positively answer these key questions:

- Will it be built and started up without injury to anyone involved, or will people be hurt or killed?
- Will the total cost be in line with the amount authorized, or will it exceed the estimate by more than 25 percent?
- Will it be completed on the original schedule, or will it slip by more than 25 percent?
- Will it start up and deliver the promised production, or will there be an initial or permanent shortfall?

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Thank you Questions?

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