The U.S. steel industry was undergoing significant change prior to the pandemic. Now, the pace of change is speeding up, according to industry leaders.

Using just one word, how would you sum up the past year in steel?

Challenging? Stressful, maybe? Or how about uncertain? Worrying, even?

But when asked for their own single-word summation during AIST’s recent Virtual Town Hall Forum, several industry leaders used words such as “strategic” and “opportunity.”

In fact, United States Steel Corporation president and chief executive David Burritt chose “recovering.” And his counterpart at Steel Dynamics Inc., Mark Millett, suggested “exciting.”

Counterintuitive? Yes.

But their words reflect the primary theme that emerged during the association’s annual sit-down conversation with steel industry leadership: despite the economic damage caused by the pandemic, the steel industry will push through and emerge leaner and stronger on the other side.

“I think we’re an industry in transition. I mean, incredible transition. It’s a new era for American
steel, and you could actually see it coming into (view) prior to COVID taking place. I just think COVID is catalyzing it,” Millett said.

/ Shifting Landscape

Over the course of the two-and-a-half-hour conversation, Millett, Burritt and three other peers — Cleveland-Cliffs Inc. chairman and chief executive Lourenco Goncalves, Big River Steel chief executive David Stickler and Nucor Steel–Indiana general manager and vice president Dan Needham — talked about the disruption caused by the pandemic, the steps their companies have taken to preserve safety and ensure continued operations, and the challenges they foresee in the months ahead.

But much of the conversation focused on the changing landscape of the U.S. steel industry, which was underscored by Cleveland-Cliffs’ acquisition of substantially all of ArcelorMittal USA’s steelmaking assets.

That blockbuster announcement came just two days before the Town Hall Forum. And as Goncalves told the virtual audience, the US$1.4 billion acquisition will transform a company that made no steel at the beginning of the year into the biggest sheet producer in the U.S. and one of the North American auto industry’s most important suppliers.

Goncalves said Cleveland-Cliffs is building what will be an exceptional steel producer, one that can control its automotive products all the way from the iron ore mine to the sheet stamping line. Supported by a top-notch research and development team and a strong partnership with union labor force, the company will be the one to beat, he said.

But beyond building a strong business, he said a combined AK Steel and ArcelorMittal USA will help strengthen U.S. manufacturing overall, creating a specialist producer of high-tech steels that pays high wages and supports a strong middle class.

/ A New Era

Needless to say, the deal significantly alters the makeup of the U.S. steel industry, taking the number...
of blast furnace operators from three to two, and potentially leading to further rationalization of capacity. Capacity already has been reduced as a result of the demand shock that arose from the spring lockdowns, with an estimated that 20 million tons of capacity having come off-line.

Although some of that has capacity has been restored, some remains idled, and in the meantime, the electric arc furnace (EAF)-based mills are taking market share as they advance in technical capabilities. So with that in mind, the panelists were asked if they thought blast furnaces are entering obsolescence. Not yet, they said.

However, Stickler said mini-mills can, in fact, produce the products of an integrated mill.

“Right now, at Big River Steel, with U. S. Steel’s help, we are making a number of products and steel grades that many, many people never believed a mini-mill could produce. The advanced high-strength steels that we currently are making with U. S. Steel’s help, I think will make the idea of ‘the mini-mills can’t’ as a historical statement,” he said.

Moreover, he said, Big River believes it is possible to produce those products by way of a 90% scrap feed into the furnace. He added that while Big River Steel’s plant in Arkansas doesn’t produce exposed automotive grades, its proposed greenfield mill in Texas will be designed to do just that.

Going forward, Stickler said he foresees a landscape dominated by four relatively large flat-rolled producers, each making 10 million to 15 million tons annually. One of those will be based on the integrated model, two based on the mini-mill model, and one a hybrid that sits in between.

“That’s a healthy, healthy marketplace for customers, for suppliers and for investors,” he said.
The hybrid model, as represented by the combination of Big River Steel and U. S. Steel, combines the operating flexibility of a mini-mill with the value-added product portfolio, process know-how and research capabilities of a traditional integrated player such as U. S. Steel.

U. S. Steel calls its strategy the “best of both” and says it will give the company the ability to be profitable at all points in the cycle while offering unmatched capabilities to produce steel in a way best suited to the grade being produced.

“That’s why I’m so pumped up and excited about our ‘best of both’ capabilities,” Burritt said.

For his part, Millett said he doesn’t foresee the electric arc furnaces entirely replacing the integrated mills, although he predicted that there will be a rationalization in that capacity as mini-mills continue to increase market share.

And they will continue to do so, he said, because mini-mills have operating flexibility that the integrated mills don’t have. As he said, mini-mills can trim up or down by a few hundred tons at a time by throwing a switch. An integrated producer moves in million-ton increments.

Goncalves, however, said that a combined AK Steel and ArcelorMittal will have something the companies didn’t have on their own before — access to an internal source of quality pellets, complemented by stores of high-quality hot briquetted iron (HBI), which will come from Cleveland-Cliffs’ HBI plant in Toledo, Ohio, USA.

At the time of the event, that plant was nearing completion and was set to enter production this month.

Access to HBI not only will help ensure that Cleveland-Cliffs can make steel to the highest
technical specifications, he said, but to the cleanest specifications. Using natural gas as a reductant, it significantly will reduce coke use and carbon emissions in the steel process.

And for those reasons, the industry should not dismiss the blast furnace operator.

“We are going to cut costs, reduce our expenditures and explore synergies. And working with (our union partners), create jobs that pay more than any other company here in the past,” he said.

/ Investing for the Future

But Cleveland-Cliffs isn’t the only company creating jobs. This year, all of the organizations represented by the panelists have at least one major capital expansion project underway.

To wit: Steel Dynamics is building a US$1.9 billion sheet mill in Texas. U. S. Steel in October fired up a new electric arc furnace that will support its tubular operations. Cleveland-Cliffs has its HBI plant. Big River is doubling the size of its Arkansas mill (the first coils were to have been rolled up last month). And Nucor is building a US$1.7 billion plate mill in Kentucky.

These projects and others have prompted questions from some corners as to whether the industry is overbuilding in blind pursuit of tons. But Millett and the other panelists said the investment reflects not a desire to add capacity, but a need to replace older technology. And to keep pace with foreign competition, namely China.

“Over 80% of their industry, the capacity of which approaches over a billion tons today, is less than 15 years old. They’ve got modern stuff. So as an industry we need to make these transitions and investments.”

/ The Import Threat

Through the pandemic, China’s steel production has continued to climb, even while it has slowed throughout the rest of the world. In fact, the country’s crude steel production is on pace to cross the 1 billion-metric-ton threshold this year.

That capacity, the panelists argued, necessitates continued protection from unfairly traded imports. Even with global calls for the country to reduce capacity, Stickler said he believes that China is highly unlikely to make significant cuts.

“In many towns, cities and provinces, steel producers in China are the largest employer and the largest taxpayer. The Chinese government would have social unrest and civil disobedience on their hands if they went in and massively cut jobs and shuttered those mills,” he said. He added that the steel China is producing now is likely to eventually turn up in international markets.
“They’re going to have to do something with the steel that they produce. That steel will find its way to homes where the rules and regulations are not in place to stop it at the border and where the highest price can be achieved.”

Burritt agreed, saying that although domestic stimulus measures have so far kept Chinese steel at home, it won’t last forever.

“The world should be bracing for the inevitable flood of Chinese steel,” he said.

He said a central tenet in U.S. trade policy should be to build a global coalition willing to take on China.

But coalition building needs to begin at home, Goncalves argued. A first step, he said, would be to reorganize the industry’s policy efforts and create a single group representing U.S. steelmakers. There are two at the moment, the Steel Manufacturers Association, which traditionally represents the minimill operators, and the American Iron and Steel Institute, which has represented the blast furnace operators.

“We need to speak with a single voice. It’s about time to launch an American Steel Association with all of us (on the panel) and everybody else that has a common goal.”

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/ The Common Goal

At the moment, the common goal for the industry is to push through the pandemic and capitalize on the recovery that seems to be underway.

Burritt said U.S. Steel has noted an increase in lead times and its order book. Meanwhile, selling prices, supported by rising scrap costs, are on the up.

Goncalves was even more optimistic.

“The third quarter has been one of the most remarkable turnarounds I have ever seen in this industry,” he said.

What’s more, the pandemic is creating societal shifts that will work in its favor.

“People are moving from the big cities to the suburbs, and people are buying cars that they were not planning to buy.”

Uber and Lyft may have been sufficient in the cities, but as people leave urban living behind, they’re finding they need transportation for daily living — to take the kids to school and to go grocery shopping.

“It’s a brand-new world for us,” he said.