INTO THE UNKNOWN

Regulations and Rising Costs Set the Stage for 2023

BY CARLY FIELDS

As the year turns, project cargo and breakbulk movers find themselves stuck between the rock of regulation and the hard place of inflation. The deep-rooted International Maritime Organization rules coming into force might seemingly apply only to shipping lines, but achieving compliance will not be possible without collaboration with shippers and other parts of the supply chain.

In 2023, a small respite is expected from the crippling shortage of suitable transport options for project and breakbulk cargoes in 2022, but shippers should take note that we are not out of the low-supply woods yet. Freight rates are expected to ease, but not to the below-breakeven level seen before the pandemic. Those environmental regs can shoulder the blame for the continuation of a tight market: without certainty on fuels and emissions, asset operators are understandably reluctant to invest in new tonnage. And without that, options for transportation are limited.

Rising costs, meanwhile, are eating into everyone's bottom line. An increase in nearshoring could well become a necessity, rather than a choice in 2023. Engineering, procurement and construction companies are feeling the squeeze with clients demanding cuts in lead times so they can realize returns on investment faster.

Then there is the talent gap to factor in, which is widening year-on-year. More investment is needed to lure skilled workers into the industry; then comes the challenge of keeping them. Academia stands ready to assist and industry needs to find ways of working more closely with specialist logistics institutions.

Over the following pages, *Breakbulk's* Advisory Board speak to these issues and more, outlining their views for 2023 and beyond.

IN THIS SECTION

CARBON COUNTING NOT ONLY FOR CARRIERS

Incoming Regulations Will Impact Ocean Services

BY ROGER STREVENS

On Jan. 1, 2023, efforts to reduce the CO_2 emissions of the global shipping industry will shift up another gear with the introduction of the Carbon Intensity Indicator, or CII, by the International Maritime Organization, the global regulator. CII is the most impactful climate regulation in shipping to date, with far-reaching implications for both carriers and shippers.

The CII regulation is intended to improve the carbon intensity of individual vessels. To simplify a lot, the core of CII essentially boils down to comparing the amount of CO_2 per nautical mile with other vessels of the same type. Vessels will gain CII ratings from A to E based on data reported for the previous year.

CII ratings are affected by multiple factors, some which are under the control of shipping companies, like speed and fuels used, and others, like pandemics and recessions, which are not. In addition to being outside the control of shipping companies, external factors are often not possible to predict.

As a vessel rating measure, CII has some peculiar aspects. For example, a vessel that sails around for a year with little or no cargo will get a better rating than if it sailed the same amount full laden.

Another aspect to note is that CII applies to individual vessels while most shipping lines take a fleet optimization perspective.

CII FROM A SHIPPER'S PERSPECTIVE

As any of its stakeholders will know, the shipping industry is no stranger to environmental regulation. What makes CII different is that it brings with it the possibility of changes to ocean freight services, in addition to compliance costs.

Service changes can include longer transit times and fewer ports called. The actual changes that will be made will be highly case-specific and can change over time as CII itself changes. In general, although the impact on services may be mild initially, they should be expected to become more pronounced.

The best advice to shippers is to engage with their carriers early and plan for CII together. As the effects of CII, and other forthcoming environmental regulations, become more noticeable it would also be advisable to shift towards a partnership model with carriers in favor of a short-term transactional approach.

At Wallenius Wilhelmsen we know from experience, like IMO sulphur 2020, that seeking engagement leads to value creation for all parties, therefore we're pleased to extend an invitation to our customers to let us take you through CII too.

Roger Strevens is vice president of global sustainability at Wallenius Wilhelmsen.

Carriers and shippers will need to act together to meet the CII's requirements.
CREDIT: WALLENIUS WILHELMSEN

Measures to Influence CII Ratings

Mechanical: these are equipment installations or modifications to existing ships that improve technical efficiency. Examples include bulbous bow changes and propeller polishing.

Operational: a very broad field of measures that can be subdivided into technical initiatives, like weather routing and hull-fouling management, and trade initiatives, like reducing speed or the number of ports called.

Alternative fuels: using fuels that have a reduced carbon footprint can improve CII ratings. Many biofuel and synthetic fuel products are in this category, however they come at a high-cost premium relative to conventional fuels.

PEOPLE STILL MAKE PROJECTS TICK

Industry Must Double Down on Recruitment

BY JAKE SWANSON

As we look toward another year and ask ourselves what we can expect for project logistics in 2023, what stands out the most to me is the importance of having the right people and the right team in place.

Considering the amount of large project opportunities that were bid on during the second half of 2022, the opportunities for another busy and productive year seem to be in our futures. Whether it be new liquefied natural gas facility construction, mining facilities, renewable and O&G turnaround projects, technology fabrication centers or resupply opportunities, 2023 already appears to be full of opportunity and activity.

It also appears that much of the supply chain issues that we have been dealing with over that last several years – including price volatility, congestion and reliability – have started to stabilize, which hopefully will also encourage additional projects to come forward that might otherwise have been less likely to be executed during the previous uncertain conditions.

The question that I frequently ask myself is: Do we have the right team in place to handle the work that we currently have in place and what people are we lacking? Beside commercial considerations, the team that you have in place is arguably the most important factor when deciding which service providers will be involved in project execution. Additionally, developing and having the right team in place is critical for executing operations in a safe and efficient manner.

As 2022 evolved to become a very successful and active year in projects, often the challenge was to keep up with growing opportunities and have

the right people in the right position to handle the increased operations. As organizations look toward strengthening their teams and growth, it becomes a race toward attracting the right talent, placing them and then training and preparing them for what is up ahead. In our industry, people will always be the foundation of project execution.

This challenge becomes more difficult as the general shortage of qualified and experienced professionals in the project sector continues to grow, as well as the age gap in the industry becomes more pronounced. Of course, there are initiatives that are taking place within certain organizations, including Education Day at Breakbulk events and internship programs with industry organizations such as the U.S. Exporters Competitive Maritime Council. However, ultimately it will be up to organizations to invest in their current workforce, recruit new people and invest in their organizational structure.

Jake Swanson is regional vice president, Americas operations at DHL Industrial Projects.

Challenge of resourcing continues to bite.
CREDIT: DHL INDUSTRIAL PROJECTS

"There are more projects to be executed than the available required resources can manage"

DEMANDS FOR MORE IN LESS TIME

EPCs Face Up to Challenging Requests

BY DHARMENDRA GANGRADE

Today, engineering, procurement and construction companies face major challenges not only from external factors such as geopolitical and the rising cost of equipment, but also from internal factors such as modularization and compressed schedules.

EPC clients are increasingly shifting towards more and more modularization thereby increasing the weight and dimension of a single piece that becomes more challenging to transport and maneuver on existing roads, leading to possible delays.

To fulfill a move to modularization to execute complex projects, associated logistics service providers are expected to invest in higher capacity axles, self-propelled modular trailers and other equipment to meet requirements.

At the same time, EPC clients are challenging that projects of a similar size and type that used to be executed in 28-30 months are completed in a shorter period, in some cases demanding a reduction of up to eight months, so that they can start to realize their ROI earlier.

Add to this a continued shortage of skilled and talented resources to anticipate and manage the challenges associated with transportation of heavy cargo.

So, there are more projects to be executed than the available required resources can manage. And with moveable project locations it is very difficult to relocate the talented resource in accordance with a project's location.

Based on the current pipeline, I expect the project hotspots in 2023 to be in the Middle East and India, so resource will be needed in these locations in the years ahead.

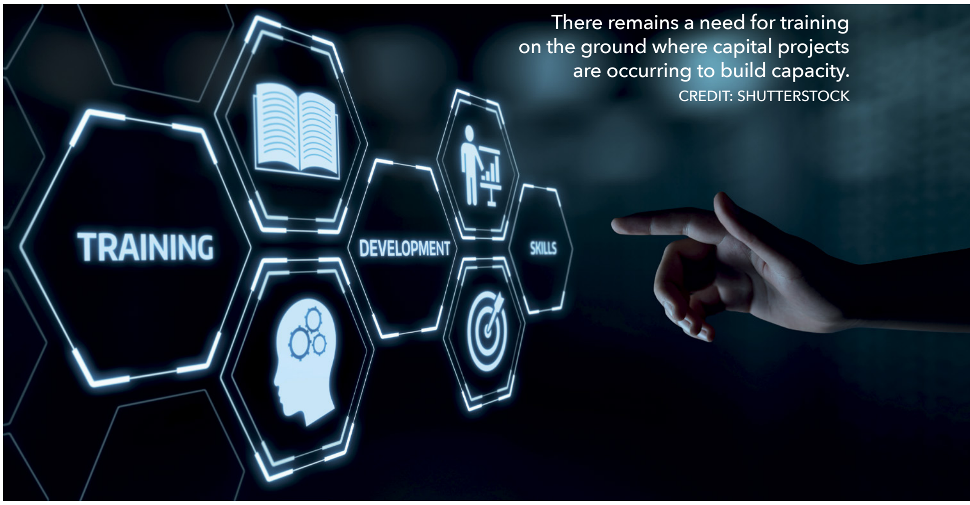
In terms of structure of the sector, while I do not foresee any consolidation of EPCs over the coming 2-3 years, I do expect to see some more strategic joint ventures created to cater to niche segments. One example would be NT Energies, a new joint venture between Technip Energies and Abu Dhabi's National Petroleum Construction Co. Its purpose is to focus on the Middle East and North Africa region to provide added value in blue and green hydrogen, carbon capture, waste-to-energy, and biorefining. Joint ventures such as these are expected to be established for a limited period to meet growing demand and to stay ahead of the curve.

Dharmendra Gangrade is head of the logistics management center at Larsen & Toubro Limited.

ENERGY TRILEMMA SUPPORTS PROJECT GROWTH

Academia Ready to Aid Rebound

BY MARGARET KIDD



There remains a need for training on the ground where capital projects are occurring to build capacity.
CREDIT: SHUTTERSTOCK

The intensifying 'winter of discontent' is an emerging challenge globally with tight energy and commodity markets, striking labor, slower industrial output and consumer spending, historically high inflation and cost of living, and a geopolitical realignment operationalized by the Russian war on Ukraine. All magnified during a period of energy transition.

While Europe might face potential rolling blackouts and fuel rationing this winter based on their energy policies and historic overdependence on Russia, and China appears resolute in continuing its zero-Covid policy, a bright spot does exist for breakbulk and project cargo as energy security drives capital expenditure budgets through 2030.

The energy trilemma of affordability, security, and sustainability remains at the forefront for capital expenditure spending with the breakbulk and project cargo sector benefiting from current and planned projects. S&P Global indicated in March 2022 that global energy sector capital expenditure was over US$1.5 trillion in 2021 and poised for a strong rebound.

The rebound in energy sector capital expenditure is further supported by market intelligence from the Energy Industries Council, based on estimated capital expenditure on announced developments to be commissioned by 2030, with the U.S., Brazil, India, and Australia being leading locations for mature hydrocarbons and power, mature renewables and cleantech and energy transition projects, respectively.

Academia can support and meet the challenge of both energy transition and growth of global capital

projects in 2023 with industry-funded research and workforce development for 21st-century job skills. Currently, the STEM Supply Chain & Logistics Technology (SCLT) Bachelor's and Master's degree plan at University of Houston (UH), along with non-credit professional development certifications in supply chain, logistics, imports/exports, and chartering, are doing exactly that.

Timely research initiatives driven by faculty members Dr. Sasha Dong and Dr. Zheyong Bian in supply chain resiliency and circular plastics, as well as the textbook launch of 'Project Logistics' authored by Marco Poisler, chief operating officer of global energy and capital projects at UTC Overseas and adjunct professor SCLT, in collaboration with Richard Knoll, provide a framework for supporting industry needs.

There remains a need for training on the ground where capital projects are occurring to build capacity. A unique window of opportunity exists to assist the less developed world, middle income countries, and transshipment load centers, such as the Middle East, in building capacity for the workforce of the future. The SCLT program at UH is purposefully positioned to support this opportunity in 2023.

Margaret Kidd is program director, supply chain & logistics technology at the University of Houston.

TIGHT TRANSPORTATION MARKET TO CONTINUE

Securing Space Not Getting Any Easier

BY DENNIS DEVLIN

Entering 2023, we see a very different project logistics market than the market of several years ago, and one which is still changing. This brings both challenges and opportunities.

The very tight container market seems to be loosening up a bit, and this will help project shippers and forwarders in many ways, especially for shipments from Asia.

That said, on the breakbulk side, we are working in an environment with significantly less regularly scheduled liner breakbulk services than five or so years ago. The demise of some of the breakbulk liner carriers means the loss also of a significant base of regularly scheduled services. Gone are the days when it was easy to book small (less than 1,500 freight tonnes) cargoes from port to port in major trade lanes like Shanghai to Houston or Antwerp to Singapore, as well as to and from Mediterranean origins and destinations.

Yes, there are still some good breakbulk liner services in the market as well as some reliable and frequent roll-on, roll-off services, all of which can support many breakbulk shipments. But there are far less regularly scheduled breakbulk services than there were some years ago. And space is far tighter now too.

Due to a lack of new breakbulk/multipurpose ship building and the increasing use of the fleet for wind energy projects, space on breakbulk and heavy-lift tonnage will remain tight. And although rates may fall a bit, they won't likely fall to the levels we saw before the pandemic, levels at which carriers were losing money.

FORWARD BOOKING ISSUES

For larger volume breakbulk and heavy-lift shipments, the challenges are different. While shippers and forwarders may have inducement volumes with which to work, thus not needing to rely on liner services, the challenges will be booking far enough in advance to confirm the space. This will be especially true for super-heavy-lifts. Gone are the days of booking a month or so before the anticipated shipment date. In today's market, carriers are booking cargoes many months in advance. Project cargo shippers and forwarders must work closely with carriers far in advance to ensure space. Planning and some flexibility are vital.

No quick solution to a lack of ship supply.
CREDIT: SHUTTERSTOCK

Other challenges will increasingly involve regulatory compliance. For example, in the U.S., in light of the Uyghur Forced Labor Prevention Act, signed into law on December 23, 2021, imports from China involve a far higher risk than before, especially for machinery and equipment with many parts and components, some of which might introduce the risk of non-compliance if one does not know where the parts were manufactured. Many project shippers will require detailed consulting services to meet this challenge, or they risk serious penalties and delays.

The project cargo market will continue to grow. Wind farms both on and offshore, mining projects, liquefied natural gas, chemical plants, and other projects will continue to be built. It remains a very interesting time to be working in the field of project logistics and transportation. But it is a significantly different market today than some years ago.

Dennis Devlin is senior director strategic programs at Maersk Project Logistics.

CARRIER OPTIMISM FOR 2023

High Demand and Tight Tonnage to Continue

BY ULRICH ULRICHS

We look rather optimistically into 2023. Despite current downward trends in the container sector, there are good reasons for a healthy mid- to long-term outlook for the multipurpose and heavy-lift sector, driven by the demand for energy and renewables, and other industrial projects.

There is no significant newbuilding activity for multipurpose tonnage, and the fleet continues to age. This, coupled with a high level of demand with large parts of the multipurpose fleet already being occupied with projects over the next few years, means that it will become more difficult for shippers to find suitable multipurpose tonnage to pick up their projects.

Meanwhile, delays in supply chains, disruptions in port operations and the issue of crew change remain challenges for our industry, which must be overcome.

Regarding regulations, as of Jan. 1, 2023 the Energy Efficiency Existing Ship Index (EEXI) enters into force requiring existing ships to implement technical measures for the limitation of their CO_2 emissions. Additionally, the Carbon Intensity Indicator comes into force, limiting the CO_2 emissions resulting from the operating profile of the vessel. Vessels that fall under these regulations will have to comply from their first annual class survey on or after Jan. 1, 2023, resulting in measures such as main engine power limitation or speed reductions, for example. Also, CO_2 emission pricing will soon have its impact on costs attached to ocean transportation.

The pandemic has changed the work environment and has shown

our capability to maintain our business operations even in times of lockdowns. Our IT infrastructure and setup was already able to cope with it when most of us shifted to work from home. Flexibility is key and we continue this path to ensure that in case it is needed; we are basically able to work from anywhere. This has become a decisive factor for the continuity of our business and adds to the need to further optimize and digitalize processes in our sector.

Finally, we also must make sure we have skilled and experienced staff that are capable of taking on the challenges our clients present to us with their cargoes. BB

Ulrich Ulrichs is CEO of BBC Chartering.

"There is a high level of demand with large parts of the multipurpose fleet already being occupied with projects over the next few years, meaning that it will become more difficult for shippers to find suitable multipurpose tonnage to pick up their projects."

BBC expects a healthy mid- to long-term outlook for MPVs.
CREDIT: BBC CHARTERING