

The Business of Containers

10th graders explore port transportation companies

International School SEK Atlántico
Pontevedra, Spain

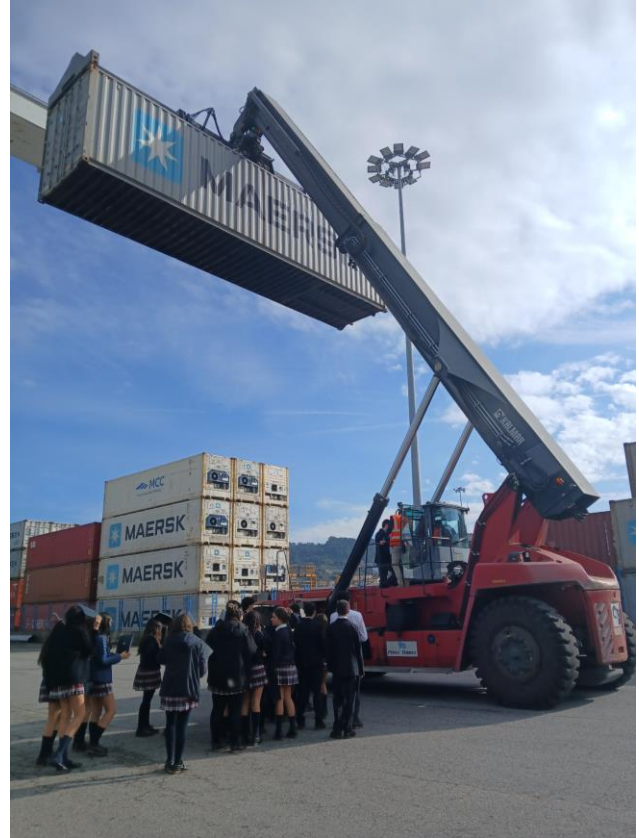
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"Do you see those four holes?" the dock worker asks from the open door of the enormous reach stacker, a crane-like truck for lifting shipping containers. Eva sits in the driver's seat and nods with one hand on its steering wheel and the other on a joystick. "As soon as they connect with the hooks of the machine, the security system is activated and the green, yellow and red lights inform you if it is hooked or not."

"Okay," confirms Eva as she slowly moves the joystick. The massive arms of the reach stacker clamp onto the container and green lights light up on the panel in front of her. Her friend Rita stands beside her and squeals in delight.

"Pick it up now," he instructs. Eva gradually moves the joystick back, her eyes wide. The engine loudly revs as the container begins to lift from the ground.

"Oh my, look, she's doing it!" Shouts a boy in a group of students waiting their turn to try. The other students bubble with excitement as the container goes higher and higher. Their questions come quickly: how heavy is the container? how does it not tip over? Is this how all containers are moved? The dock worker, noticing how curious the students are, radios his colleagues. Within seconds two other reach stackers appear from the rows of containers that fill the port terminal yard. Groups of students form around all three massive machines to continue exploring how they work and the role they play in the business here in Port Martin.



This class of fifty 10th graders attend the International School SEK Atlántico, a private pre-k-12th grade school of 680 students on the Northern coast of Spain. Many of the teachers at this school are creating learning experiences that invite students to learn outside of their classrooms in places in which they can connect with their local community and environment of their city, Pontevedra.

“In this introduction to business class they are learning about the basics of management,” explains one of their teachers, Ana. “We’re creating opportunities like this for them to see what it looks like in the real world so they can better connect what they are learning in practice.” The students are learning the elements of businesses, such as human resources, marketing, and operations.

“This is a place where they can see things in action, ask questions, and make connections,” Javier, the other co-teacher, adds. Through a connection of one of the school’s teachers, the owner of a container shipping company in the city’s busy Port Martin has invited the students to visit and learn. His and other companies here specialize in operations, an important element for any business. The port is a major international hub for shipping and plays an important role in shaping the city’s history.

On the Learning Path

On an overcast autumn morning, the students board a bus in their school parking lot for the short drive to the port. They each are carrying folders for taking notes and light conversation floats through the bus as it winds down hilly streets towards the city center river.

“Remember everyone,” Ana raises her voice and the bus quiets, “Look outside your windows as we approach the port and notice all the different businesses in this area.” Students swivel their heads, viewing the changing scenery. They drive alongside the river, passing more and more industrial buildings. The massive cranes of Port Marin rise in front of them signaling their destination. After a few minutes more they arrive at the first of several manned gates.

“Why is there so much security?” asks a student sitting nearby. Ana explains that the port is an international site for exporting and importing and requires customs and security to ensure safety. After passing through another guarded gate, a police car finds them and leads the bus through the labyrinth of buildings. They follow a line of empty large container shipping trucks while loaded trucks pass them exiting the port. At last, the police car directs them to a parking lot by a cluster of buildings, one of which is the business they are visiting: Pérez Torres Marítima.

They are greeted at the front doors as a steady din of truck motors and beeping forklifts fill the air. Up a few flights of polished granite stairs, they meet Pedro, the CeO, who enthusiastically welcomes the group. Around them are offices separated by glass walls that



reveal workers at desks, shuffling papers and checking their computer screens. The students squeeze into a board meeting room adorned with maps and images of the year and with windows that overlook the shipping activities below. Pedro shares a brief overview of the business –how it works, its main elements, and how it fits within the larger system of global transportation of goods. On the table in the center of the room are several objects: a model crane, a piece of wire cable, and a miniature shipping container. These are just a few of the curious objects and materials of this place.

“Whoa, feel how heavy this cable is?” says a boy to his friend as he picks up the silver cable from the table after the briefing has finished. Pedro explains to them how the coil is a specially wrapped to create extra strength. If a wire snaps, it can shut down all operations instantly.

“These are practically unbreakable,” he points to the cable in the boy’s hands. The students file back down the stairs and enter a large, open workspace buzzing with activity. Dozens of desks are occupied by workers typing away, their focus adding to the energy of the room. An employee greets the class and begins explaining the operations of the container terminal.

"This is the operations office," he begins, "where we manage the movement of containers and oversee the cranes, the different types of containers, and the connections the port has with land and rail transport, as well as the bonded warehouse."

One of the students raises a hand and asks, "Who owns the company’s floor space?"

"It belongs to the State Port," the employee answers. "There are two ways to occupy port space. The first is through a concession, like the one we have here. A concession is linked to a business plan and comes with specific requirements set by the Port Authority. The second is a temporary authorization, which allows companies to use space for short-term or specific needs." With a fuller sense of the various parts of the business and how they work, the students return outside to explore the vast shipping yard in action.

After a short snack back at the bus, the students divide into three smaller groups to walk the grounds with a dock employee as a guide. The groups move through the vast open asphalt yard and approach the goliath shipping container cranes perched on its edges. A breeze blows by carrying a heavy rotten odor from a nearby container nearby. Many students quickly cover their noses, wondering what the stench might be. It soon dissipates and the students’ attention returns to marvel at the towering metal giants before them. The students have never been this close to such large machinery.



“We have two types of cranes here,” a dock worker explains. “One for long-distance ships that pass through the Panama canal and one for those that don’t.” Students pepper questions and the worker explains that longer distance ships are bigger and require a crane with a longer reach to load and unload containers. As he describes the operations, a reach stacker buzzes by on the way to the many rows of stacked containers to a nearby section of the yard. After a few questions about it, the guide gets on his radio and asks if one can come over.



Its loud engines cycle down as the massive vehicle stops a dozen meters from the group. While the guide goes to talk to the driver, the fifteen students stay huddled close together. The guide waves them over to more closely explore the machine. Students wonder: *How much does it weigh? Does it run on gas? How do they communicate? How much can it lift?* After a few minutes of discussion, the driver asks students if they want to try it. Most students eagerly agree and form a loose line to step up onto and into the machine with the driver. Eva and Rita are one of the first pairs to step up into the reach stacker’s cab. Soon two other machines appear so the other student groups can explore them. For more than twenty minutes the students ask questions and are taught the basics of operating a reach stacker, a key element of the business’ operations.

“What’s in these containers?” asks a student to one of the dock workers.

“Could be almost anything.” He responds. This leads several students to ask about the putrid odor they smelled earlier. They learn that it’s from a container full of fish that arrived six months ago but didn’t pass customs inspection. It’s been sitting on the dock in limbo, unclaimed by the sender and unclear how it will be resolved. “It sometimes happens, but we’re working with the authorities and owners and hopefully we’ll get it resolved,” the dock worker apologizes. After the discussion about the foul container, the guide leads the students into the stacks of containers. Here they can see what they look like up close and even peer into some. One container is full of stacked sheets of thin wood.

“Evan,” Ana asks as a student as they peer into the container, “Do you know what this type of plywood is used for?” She knows that his father and grandfather are both carpenters and wood workers.

“This is used to make kitchen cabinets” he replies, closely inspecting the stacks. He explains to his friends that plywood is made from the small, leftover pieces from other



woods. Students take turns looking into the container, exploring its contents and simple structure that can be adapted to hold a variety of goods. The students move inside to a warehouse that stores a range of tools and other machines the business uses in its daily operations. After exploring the business' operations in the yard, the students bid farewell and thanked the workers and owner for the exciting experience.

Reflections

Ana was impressed with the engagement and inquisitiveness of the students. "I really liked this experience, and I think the students enjoyed it as well. It has been a fantastic opportunity to review some basic concepts about how companies operate. The best part is that it has served as a great provocation for our next unit on operations and logistics."

"Operating the reach stacker was amazing," Eva, as student, shared afterward. "The size of the containers and the movement of that machine was so impressive. It's something I've never seen before." Many other students feel similarly. Although they see the port cranes every day on the horizon, few students have encountered it and its business operations this closely and powerfully.

