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## Meet John Murphy, Senior Member

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**John, please tell us about yourself, your occupation, work experience, etc.**

Initially, I qualified as an IE from the School of Management Studies, Dublin. I did an intensive six-week full-time course in basic but practical subjects like time study, method study, etc. After that I completed three years of night classes, passed the exams, and met the criteria, I was accepted as a corporate member of the Irish Institute.

My work experience includes approximately 30 years in manufacturing with a variety of organizations such as the Smurfit Group and The Donnelly Corporation (now Magma Donnelly). With Smurfit, I was a major force in the turnaround of the Bush Electronics TV plant, serving as Production/IE manager and then as a General Manager. At Donnelly I was involved in introducing major change in manufacturing operations by working with the Unions to implement Japanese-styled management practices and innovations such as cellular and lean manufacturing.

I was offered a job in Bantile Ltd., about 80 miles from Dublin, on the banks of the Shannon (largest river in either UK or Ireland) and slap bang in the middle of this island. Bantile was unique because they were the only precast concrete, prefabricated building firm in the country at that time. They had about 14 contracts going on at any time and these were extensions or small contracts to schools, hospitals, private offices, etc. The concrete units were precast at the plant and then assembled on site and then the 2nd fixing and completion took place. Many contracts were designed by architects and the small church in Athlone and at St.Patricks in Dublin are noteworthy to students today.

Bantile was also unique at that time because there was a heavy emphasis of quantification, preplanning, and then the tracking of performance both in the works and then on site. As far as possible, all work was measured. Time studies, analytical estimating and synthetics were widely used, and this process was continually updated. While some finishes like bricklaying were contracted out, the bulk of the building panels were precast and made in the base factory. A small group of permanent Bantile staff, usually no more than 10, would go on the sites and act as a team leader to the other workers who would be hired locally. They would act as examples to the type of performance that the company was trying to achieve, both in terms of output and quality. The carpenters, in particular, were a joy to watch. From rural areas, they would have served their apprenticeships on a real variety of work as opposed to some "city" types who would specialize in say, shuttering for concrete, etc.

I would like to talk briefly about Bantile Ltd. Co., at Offaly. The company is a prefabricated pre-cast builder and manufactures "system" buildings based on a module of 2 meters (6 feet, 6 inches). The span of these could be four, six, or 10 meters wide. Pillars are inserted into prepared concrete bases and then infill panels are inserted into grooves on the pillar. The type of infill varies between 50 percent panels, 50 percent window, 100 percent panels or brick, doors, etc. All concrete components are made in factory in Banagher and shipped to sites.

The buildings have survived well and are mainly used as extensions to schools, small churches, bungalows, factories, canteens, etc. At the time the new County Hospital in Athy was constructed of the system. It was the biggest contract obtained at that time in the company.

The company expanded into multi-storey systems and also bridge beams. The "new" Kings' Hospital was constructed using this system. The company at one stage had 14 contracts all over the country, from Donegal to Wexford, Co. Down to Limerick (County Hospital at Annacotty).

Regarding my job description, I was responsible for pre-contract / planning and overall production schedules. I also established the work requirements or labor content of all operations. This could involve the measurement of new types of jobs, with a skilled foreman deciding the most appropriate methods and forwarding this information to other sites. My other responsibilities included:

- Preparing production plans. I developed Gantt Charts and discussed them with senior site staff, making revisions if necessary. Where there were deviations to either the specifications or progress, I got involved so that plans were brought back on line."
- I ensured that there were time standards for all work, either measured (stop watch), synthetics, or estimated. From the time sheets, I established the input hours, and from the above, output expressed in hours. This allowed for an efficiency ratio to be established in total and in detail for all contracts. I establish bonus payments to be made to staff based on the above on a weekly basis. "
- I worked with the lower performing foreman / engineers to increase their effectiveness by teaching them the approaches that were more effective and were used by the more experienced / higher performing foremen / site managers / engineers.

I also learned very valuable lessons in the 1970s as a senior consultant in the areas of production management, management development and industrial engineering. We were called work study officers rather than IEs. Really that's what we did, study work and then improve it. Most companies had bonus schemes-payment by results-and unfortunately in many cases these were not regularly updated, were mismanaged, and became a "pain in the neck." I spent a long time putting them in and an equally long time taking them out. At one stage I was the chief of work study and had seven IEs reporting to me. At a company called Rank Bush Murphy (no relation) I became one of a small group charged to sort it out and become efficient again. The bonus scheme had gone off the rails and the standards were loose. We reset all standards using MTR2 and this caused major difficulties for staff. Bush Ltd. made TV sets and were part of a worldwide UK organization. I would check the standards we were setting against benchmarks in the better companies and institute improved methods to ensure that standards were equitable. To give you an idea, under the "old" system staff would have achieved maximum bonus levels before lunch at a rate of production of 200 units with 80 operators. When we got to a 1,000 units, there was 23 staff. Some of Moore's Law was at work as well. Overall, the staff numbers rose from 400 to 1,000 in two years.

**What has been your involvement with IIE?**

I have been a member of IIE since the late 70s and I am affiliated with the IIE Chapter in Ireland. I am currently a senior member of the Institute.

**Can you tell us a bit about your most interesting IE project (or your most recent one), that required the greatest amount of creativity?**

One of the most interesting projects that came to mind is an assignment at TEAM (The Experts in Aircraft Maintenance), Aer Lingus. TEAM had a habit of asking me to do not less than two assignments at the same time. An example of this was:

1. To manage the new Industrial engineering department and
2. Develop and run management development courses for 1st line technical staff at the same time!

The culture that the CEO, Terry McManus, was trying to change involved widening the managerial and supervisory behaviors beyond just the technical aspects of aircraft overhaul, which had been the case. The so-called "2+2 Agreement" required major improvements in all aspects of the performance of the company and determined systematic and measurable improvements in labor productivity. Every other week I would run a 5-day course for all levels of management, with this as the goal, and that all attendees would pass the standard 1st year exams of the IE Institute. It was organized that one week I would give the same course to the Union Negotiation Committee, and then to a group of senior managers that they had to "negotiate" with.

The performance of the Union Committee members on the course of the committee was heartening. They were always ready to start on time, exercises were tackled with gusto, and the finishing time usually slipped by and we might run an hour or two over. They were really interesting to observe. They were very helpful to one another; one might ask a clarifying question for the benefit of all. They made serious attempts to make sure that they did not miss sessions. Though I was totally prepared and had run the course a number of times previously, they were such good students that most evenings when I would get home I would prepare additional material - just in case I ran out!

In contrast, the senior management group was just going through the motions, with much clock watching, missing sessions, and wanting early finishing. This gave me a dilemma. On Wednesday morning I decided I had to confront their behaviors so I put a question to them: Had they considered that maybe my boss might ask me my opinion of the two groups? They knew the CEO and it dawned on them, very quickly, that he would probably ask such a question and what I would have to say. They asked me to withdraw for a time while as group they discussed "their dilemma." After a half-hour I was asked back. A spokesman had been appointed and apologized to me on the group's behalf. They would like to continue and, if possible, cover all the sessions, and asked me if, in future, I would rate the global performance as each session was completed."

Later that month, the CEO sent for me and congratulated me. He indicated that sometimes the management group had appeared to him as going through the motions, but since they had attended my course there had been a major improvement. "Would it be possible for me to run everybody in the company through the course?" he asked.

#### How has your educational background and experience helped you in this endeavor?

They have helped me tremendously. I obtained my Honours Leaving Certificate from St. Josephs Secondary CBS Fairview, and my industrial engineering degree from The School of Management Studies, Rathmines, Dublin. I became a corporate member of The Institute of Industrial Engineers, Ireland after passing the exams. I am also a qualified assessor for the European FOM (European version of Deming/Baldrige Awards). Some of the courses that helped me include: The Managerial Grid (Blake & Mouton) Savannah, ISO: 9000 (NSAI), Ford Q101 (NSAI), Synectics: Performance Planning & Review (S.M.A.R.T.), Business Planning (Irish Management Institute) and Six Sigma (NSAI). In terms of the construction industry, I saw somewhere the extent of prefabricated building in the United States and that was why I shifted to the construction division; to help me apply some of my knowledge.

#### What would you like to say to the CD members? Do you have any special thoughts for IE students?

In my experience, when we try to improve systems, it's better if we come from a theoretical basis, if we can. One should consider the "system" in the first place rather than the individuals. If it emerges later that there is a need to improve individual or group members' performance or add competencies, then such a plan can be developed. First though, we need to see what the reality is of the system in question.

When looking at parameters, inputs, etc., it can be useful to ascertain whether it is possible to:

- Capture meaningful data, such as start times, deliveries on time, actual outputs, materials used, batches produced, and so on.
- Then track this. Can it be gathered and plotted on a chart or graph. What are the variables? Who will gather the data, plot these visuals, and keep it up to date? Who will interpret this data? And so on. Dr. E Deming gives us a great deal of guidance in his writings, especially the book "Out of the Crisis."
- Then try to identify the problems into common or special causes. The book "Understanding Statistical Process Control" by Donald Wheeler and David Chambers is very useful in this area, and the examples and exercises are really helpful.

Before I conclude this interview, I hope you don't mind if I share some of my project pictures with our members.



The precast factory at Dublin's Port Tunnel



Inland entrance to Dublin Port Tunnel

Thank you very much for allowing me to share a little bit of my background with you.

**You are quite welcome.**

For John Murphy's contact information, contact [Jeff Mason](#), membership director.