Wendy Foster was just hired to be a Workplace Strategist by a leading technology company in Silicon Valley. She was chosen due to an amazing set of skills she began to acquire when she was 12 years old and joined an after school STEM program that her parents had found. As she progressed through high school, the same program gave her a love of science and engineering, as well as the ability to visualize information as she also pursued digital design. Cisco had a lab at her school and she learned firsthand how the convergence of the cloud, mobility, big data/analytics, social media and the Internet of Things was changing the world as we once knew it.

This led Wendy on the pathway to a program that Cornell NYC Tech had with courses both in Ithaca and New York City, which gave her an integrated disciplinary background in the built environment. She also took courses in environmental psychology and anthropology and learned about the exciting fields of facility management and real estate. Upon graduation with an MBA, with an emphasis on managing the workplace, she was chosen for the Workplace Strategy position because of her unique background in many disciplines that are all now important for the field in 2020.

In her thesis for Cornell Tech, Wendy designed a new business model for Real Estate and Facility Management. She looked at the world from a consumer point of view and came up with the idea of needing a 360 view of the Facility Management customer, the residents of the workplace. She had to understand from a behavioral point of view, how her customers needed to work, what tools they would be working with, how they are rewarded and incentivized, and how engaged they needed to be to maintain the “drive” noted author and speaker Daniel Pink talked about.

Wendy needed to have a visual display that she could pull up on her interactive wall or in the field on her iPad, with information telling her how the workplace was performing. This included data from all of the sensors the building was using to automatically operate itself, and anticipating and correcting problems that were costly, unhealthy or unsafe for the occupants. With that in mind, she took a technology platform approach to the fact that the most important thing about planning, designing, building/remodeling, managing and optimizing the workplace is the data. With this data she could ensure that she could quantify the performance of the connected physical and digital workplace. She could then be able to execute workplace strategy and management for maximum operational effectiveness.

In order to provide the right services at the right cost at the right location for the right people, she had to have access to all the information on the workplace. That means data on the people in the workplace, the digital processes that are required throughout the building life-cycle, the knowledge of all aspects of the physical workplaces and all of the thousands of connected things and assets that are needed for monitoring, controlling, optimizing and autonomously operating the workplace. She is working with MIT to build a new environment for data viewing that is fully immersive, as seen in Figure 1.

Wendy collaborated with her counterparts in HR, Finance, Environment/Safety and IT, as well as the business units and executive management, to bring this data into her open technology platform, which could then allow her to mine this information for analytics for evidence-based decision making. Using gamification tools to totally redesign business processes, she connected data on the workplace, workforce, as well as finance, real estate, environmental and IT. This created an overarching work intelligence system connecting...
people, places, processes and technology. Her ability to visualize this intelligence and correlate data in new ways ensured that she could be the strategist who could design and manage the kind of workplace that was competitive in the market to aid in attracting and retaining the best talent. Welcome to Workplace Strategy 2018!

This future scenario is how the IFMA Foundation is thinking about the new role of Facility Manager in times ahead. The IFMA Foundation is a non-profit organization with a mission to make facility management the career of choice for young people. The IFMA Foundation is responsible for accreditation of Facility Management (FM) degree programs worldwide. There are 31 accredited 2-year, 4-year and graduate degrees available from 28 different colleges, universities and community colleges. More than 2,000 students are enrolled in these programs but this number falls short of the number of graduates needed by the profession in the years to come. The Foundation also raises money for scholarships for young people enrolled in these degree-granting institutions. Over $1.2 million USD have been raised since the program’s inception in the early 1990s. Scholarship winners are invited to IFMA’s annual World Workplace conference where they engage and network with professionals and mentors and attend conference sessions on workplace topics.

For a long time, the IFMA Foundation has been focused on expanding the FM accredited degree programs around the world. The students graduating though these programs have the unusual privilege of enjoying a nearly 100% job placement rate, excellent salaries and multiple job offers. But we have identified a serious problem that now must be addressed that leads us to focus on how to encourage younger students in making FM a career of choice to fill the student seats in the growing number of accredited degree programs worldwide. Workplace management is a key role FMs play in an industry that manages over 37 billion square feet of property and annually purchase more than USD $100 billion in products and services.

THE FM WORKFORCE PROBLEM

This problem the IFMA Foundation has uncovered is explained in the following bullets:

- The average age of FM professionals today is 49, far more skewed than the general working population average of 43.2
- The average age of an IFMA member is 48.
- The “maintenance crisis” has been identified by Joel Leonard, President of SkillTV. SkillTV is an Internet-based TV show that highlights the depletion of skilled workers in maintenance management workforce caused by baby boomer retirement and few young professionals entering the field.3

By exposing more pre-college students to the FM profession, we can start to close the growing workforce gap in FM. The profession has an exciting story to tell students and their parents — an exciting career in a field with jobs that can’t be sent overseas and nearly a 100% job placement for people graduating with an FM degree (starting salaries are $55,000 to $85,000 USD depending on level of degree). This story simply needs to be told more often. The Foundation then created a new initiative in the beginning of 2014 to combat the problem of not enough FM degree programs, students entering these programs, or graduates available to fill the FM vacancies coming available.

THE GLOBAL WORKFORCE INITIATIVE (GWI)

The Foundation’s efforts to bring FM to younger students is called the Global Workforce Initiative (GWI), which includes connecting all the key stakeholders involved in the FM Career Pathway. The first GWI pilot program is taking place in San Bernardino County California, which is both the geographically largest and most economically challenged county in the United States. Working with the San Bernardino County’s Alliance for Education and IFMA’s Inland Empire Chapter, students in elementary, high school and community colleges are being introduced to the FM profession.

The Alliance for Education is San Bernardino County’s premier partnership between businesses and education communities, fostering STEM learning both in and out of the classroom. From kindergarten through college, students and their families, educators and businesses make an equal investment and commitment to achieve the goal of producing an educated and skilled workforce that ensures the economic well-being for the county. The county is connecting industry and educators and funding in emerging tech areas, including recently adding a Cisco Networking Academy.

Besides FM educational offerings, this initiative will include students participating in real world FM experiences that will ultimately pique their interest in the profession. The IFMA team
will work with high schools and community colleges that have Science, Technology, Engineering and Math (STEM) programs. These schools will then be primed to feed the wide-ranging, diverse career pathways in our field and the FM accredited degree programs. Because FM has so many career pathways, with high numbers of jobs coming available in every business sector (jobs that cannot be offshored), it is time to be proactive, tell this great career story and develop our future FMs.

Through this Global Workforce Initiative, the Foundation acts as a connector between business, government, secondary schools, community and other colleges, universities, economic development, and more than 130 global IFMA chapters. The GWI connects students with the business community, local IFMA chapters and IFMA Industry Councils to provide content-rich internship programs. Internship programs are the best way to attract, retain and source top talent for full-time positions. Studies show that the retention rate at companies is higher for employees who had interned for their employer.

According to Mary Jane Olhasso, County of San Bernardino, Assistant Executive Officer, “Significant change is needed to create large-scale, lasting solutions and change. No one organization can accomplish this alone. To create lasting solutions and prepare the workforce of tomorrow, government, business, and communities must coordinate their efforts and work together around a defined goal. Education is a critical component for individuals looking for STEM jobs and opportunities. Long gone are the days of manually switching on lights, turning on sprinklers, and setting the temperature of a building room-by-room. As part of the solution, the IFMA Foundation is taking a collective impact approach by working with community partners and educators to prepare educated professionals with the educational opportunities to learn skills needed to enter the FM workforce.”

ENGAGING STUDENTS – THE MARS CITY PROJECT: GAMIFICATION OF OPERATIONS AND MAINTENANCE

The IFMA Foundation is part of a team with NASA, National Institute for Building Science (NIBS) and the Total Learning Research Institute (TLRI) to bring an innovative, virtual FM program to secondary and two-year degree curriculums where students can manage a facility on the Planet Mars. It is called the Mars City Project, which brings simulation and gamification to schools to make students aware and excited about the field of FM.

Students will work in teams, assume actual FM positions, and manage the daily operations and projects in the Mars City space facility, which is visualized in a Building Information Model (BIM) (See Figure 2). This makes learning fun and more relevant to real-world FM experiences that pique students’ interest in the profession.

Figure 2. BIM of Virtual Mars Base. Image Source: TLRI/NIBS STEM BIM Team
The IFMA Foundation is also supporting pilot programs in workforce development:

INVESTING IN OUR FUTURE

Silicon Valley: Network for Teaching Entrepreneurship (NFTE)
The Silicon Valley Chapter of IFMA is working with the Network for Teaching Entrepreneurship (NFTE), an organization that transforms children’s lives to make them college and career ready. The 500,000 students around the world enrolled in NFTE’s programs are taught to become entrepreneurs by creating business plans, developing Websites, and making presentations to executives on their plans and innovative ideas. IFMA Silicon Valley chapter leaders judge NFTE competitions and the winners can realize up to $25,000 in college funding. Working with NFTE teachers, IFMA chapter leaders present the essentials of workplace management and FM to students in high school classrooms. Perhaps one of these young entrepreneurs will develop the next big idea in workplace data analytics and smart buildings.

EDUCATING STUDENTS

Stanford Connecticut: J.M Wright, Technical High School
The first STEM high school with a facility management program, J.M. Wright Technical High School opened up in September 2014 in Stanford, Connecticut. One of the program founders, IFMA Member Jay Drew, Facility Manager for the Connecticut State Assembly, is working with the FM Accredited Degree Programs at Pratt Institute in New York and Florida A&M University to feed the pipeline from high school to higher FM programs.

CONNECTING WITH COMMUNITY

Toronto: Local IFMA Chapter connecting with guidance counselors
The IFMA Toronto Chapter along with Conestoga College, an FM Accredited Degree program, both managed booths at the recent 2014 Ontario School Counsellors Association (OSCA) conference. Guidance counselors were informed about the field of FM by the IFMA Toronto Chapter, Conestoga, their Architecture: Project and Facility Management Program and their IFMA Student Chapter. This event marks the first successful community outreach program and alliance with OSCA to promote FM workforce development.

KEY INSIGHTS & IMPLICATIONS

- The IFMA Foundation created the Global Workforce Initiative (GWI) to combat the problem of not enough FM degree programs, students entering these programs, or graduates available to fill the FM vacancies coming available.
- The GWI connects all the key stakeholders involved in the FM Career Pathway, provides FM educational offerings, and facilitates student participation in real world FM experiences that will ultimately pique their interest in the profession.
- In sum, the IFMA Foundation is taking a collective impact approach by working with community partners and educators to prepare educated professionals with the educational opportunities to learn skills needed to enter the FM workforce.

LINKING TO SODEXO’S QUALITY OF LIFE DIMENSIONS

- **Personal Growth:** The IFMA Foundation’s initiatives provide learning and training opportunities for students who wish to pursue a career in FM.
- **Social Connections:** The IFMA Foundation’s initiatives help students connect with each other and network with other key stakeholders involved in closing the FM workforce gap.