



DEVELOPING A  
**GLOBAL WORKFORCE SUCCESS**  
IN MOROCCO



## DEVELOPING A GLOBAL WORKFORCE SUCCESS IN MOROCCO

Every country struggles with balancing educational opportunities with industry needs to provide sustainable employment for its citizens. In the Middle East, no country illustrates this balancing act more than Morocco.

For nearly two decades, the country dealt with a declining population, an unemployment rate that fluctuated into double digits, and an education system that lacked applied learning experience and had extremely low postsecondary enrollment.

Since the start of this century, the Moroccan government has made a concerted effort to focus on the nexus of jobs, skills, and human resources. For a country with a median age of 27 where 4 out of 5 unemployed people are aged 15 to 34, it is paramount that Morocco develop opportunities for its citizens to learn skills that lead to sustainable employment.

Two industries within Morocco poised to provide sustainable employment are the automotive and

aeronautics fields. Since 2014, both have seen tremendous growth. The automotive industry saw exports grow 19% and the workforce is forecast to grow by 70,000. Aeronautics exports grew by 22% and is forecast to need 9,000 more employees.

### >>> The Partnership

It was with the goal of addressing these issues and growing industries that representatives from Ecole Supérieure de Technologie (ESTO), the leading school of technology in Oujda, Morocco, attended an international economic and workforce development summit in 2009.

At this same conference, Gateway Technical College was presenting a session highlighting its automotive diagnostics program and its partnership with Snap-on, Inc.

The administrators and instructors from ESTO were highly impressed with the program and expressed interest in replicating the model in Morocco. As discussions ensued, the two schools realized that they needed additional expertise in technical support, curriculum development, and instructor training to build an effect public-private partnership.



# PARTNER PROFILES



**Gateway Technical College:** Serving more than 25,000 students in the Southeastern Wisconsin counties of Kenosha, Racine and Walworth, Gateway leads the country with its innovative approach to career and technical education. Gateway is aggressive in ensuring it delivers graduates who have learned real-world technical skills that get them hired. Gateway is considered a model college in its development of business partnerships, green career curriculum, and supporting innovative and flexible education delivery methods.



**ESTO:** The School of Technology is at the heart of a training and research environment of higher education that provides quality education and offers attractive multidisciplinary training related to regional and national priorities. Rigor and quality are the key words in the diversified educational programs offered at ESTO and the courses are based on current and projected needs of the labor market.



**Snap-on, Inc.:** Snap-on is a leading global innovator, manufacturer and marketer of tools, equipment, diagnostics, repair information and systems solutions for professional users performing critical tasks, with a mission of being the most valued productivity solution in the world.



**NC3:** NC3 is a network of education providers and corporations that supports, advances and validates new and emerging technology skills in the transportation, aviation and energy industry sectors. NC3 develops, implements and sustains industry-recognized portable certifications built on national skills standards.



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The National Coalition of Certification Centers (NC3) proved to be a valuable additional partner as it provided expertise in certification programs as well as an extensive network of education and business partners.

## >>> Getting Started

The reason ESTO was so interested in the Gateway model was because of its success. Through its partnership with Snap-on, Inc. and NC3, Gateway developed and delivered advanced training with the goals of increasing technician skills and improving productivity. Since the launch of the partnership in 2007, more than 30,000 students have received certifications.

ESTO felt that if it could replicate this success, it would become a leader in automotive diagnostics, transportation, and renewable energy technologies within the Broader Middle East and North African (BMENA) region. Historically, Morocco has been a regional transportation hub, which makes ESTO's focus understandable. But when you add to that Morocco's increasing, and young, population as well as healthy employment forecasts for the automotive and aeronautics industries, ESTO's decision becomes strategic.

With the partners aligned, the first challenge was how to fund this forward-thinking project. Through the leadership of Gateway Technical College, all of the participants agree to be "solutioneers" and work toward a successful outcome. As the leader, Gateway took the first step and secured a Higher Education for Development grant from American Council on Education (ACE) to support the first phase of the project. The objectives of the grant included:

- To increase the depth and breadth of subject matter expertise among the faculty at ESTO.
- \* To increase the faculty's use of technology as a teaching tool.
- To enhance the institutional capacity of ESTO by establishing and implementing protocols to integrate industry-endorsed diagnostic, multimeter, and torque certifications into current and future programming.
- To increase the governance structure and regional reach of ESTO through the engagement of additional BMENA partner institutions in the areas of automotive diagnostics, transportation, and renewable energy technologies.



## >>> Phase I

The first phase of this project focused on sharing best practices in automotive diagnostics training, strengthening cultural competencies, and laying the groundwork for the future.

To achieve these goals, instructors and administrators from both schools visited each other to learn about instructor training, what the classroom environments were like, and how to engage the local business community.

At Gateway Technical College, ESTO faculty learned how to integrate technology and equipment into their existing courses and automotive lab environment. This deepened the instructor experienced and provided the confidence needed to use the technology and understand the methodology of curriculum integration.

In Oujda, administrators from both schools toured facilities, discussed topics such as student recruitment, development of instructional staff, facilities management and building maintenance, and partnering with local and regional economic development leaders.

From these initial visits, the partners agreed on the following next steps:

1. **Host a train-the-trainer event** at ESTO. This would help build a network of instructors within Morocco trained on the latest in automotive diagnostic technology.
2. **Visit local automotive businesses** to discuss the vision at ESTO. The goal would be to inform the local business community that ESTO was creating a pipeline of prepared employees. At the same time, ESTO would need the local businesses to provide internship, and ultimately employment, opportunities for its students so they could learn real-time, on-the-job skills and put their training to the test.
3. **Host an open house for students** so they could learn about the opportunities being developed at ESTO.

It was also during this phase that, with the help of NC3 and Snap-on, Inc., ESTO was able to purchase the computers and diagnostic equipment it would need to



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provide a state-of-the-art training facility in order to ramp up the project.

Over the course of the next year, representatives from ESTO worked with the local business community and engaged students. At the same time, Gateway Technical College and NC3 conducted the first train-the-trainer event with 10 instructors from across the BMENA region.

## >>> Phase II

The first phase of this project was so successful that Gateway Technical College was invited by the American Council on Education to apply for a scale-up grant to increase the scope of the project and truly create a regional model. The initial success also caught the attention of the Moroccan government which agreed to support this ambitious project.

The primary goal of the second phase was to implement a training program that would directly link job opportunities in the automotive sector with unemployed and underemployed youth. A secondary goal was the establishment of ESTO as a regional training center to provide ongoing training and certification to other colleges in the BMENA region.

A number of activities were implemented during this phase to assist the ESTO faculty with increasing its knowledge, skills and abilities to teach the automotive diagnostic curricula.

Three train-the-trainer events were held which resulted in 100% of the faculty successfully passing the certification exam. In addition, the faculty at ESTO learned English and were able to complete the training and assessments in English. **The two-year automotive technology program that will be launched at ESTO in Fall 2015 will be the first curriculum taught in English in Morocco.**

Through this phase, Moroccan institutions were able to advance their technology capabilities based on what the U.S. institutions have tried, learned and now are considered best practices. Rather than each institution starting with a blank page, the U.S. institutions are able to advise the Moroccan institutions on lessons learned,

making it possible for them to “leap frog” over pitfalls and false starts.

## >>> Results

As outlined earlier, the partners had specific outcomes that they wished to accomplish with this project, and they more than exceeded those goals.

1. By the end of the project all 15 ESTO faculty had increased their knowledge and integrated either automotive diagnostics, multimeter or torque technology, assessments and certifications into their program of study.
2. Certifications were integrated into all four curricula in the College of Applied Engineering at ESTO.
3. ESTO hosted train-the-trainer events that included instructors from across the BMENA region
4. More than 100 individuals completed long-term training programs.
5. Of the first group of 18 student interns at least 8 have been offered jobs.
6. Because of its success ESTO is welcoming new business partners every year.
7. ESTO is now a member of NC3, which develops, implements and sustains industry-recognized portable certifications built on national skills standards.

It is expected that these results will only improve over time. A complete list of results can be found in Appendix #1.

## >>> Lessons Learned

According to the Association for Career and Technical Education, “Career and technical education is not an educational delivery method unique to the United States. Understanding and working internationally to develop effective ways for all students, regardless of language, race, ethnicity or physical location, to learn

valuable skills is vitally important to the ever-growing global economy.” Gateway, NC3, and ESTO discovered that the voice of local business and industry and the questions they ask are almost identical, no matter where they are located. Through this project they all learned valuable lessons.

## 1. Engage Stakeholders

When it comes to working with business and industry, Gateway is a model institution. Gateway currently has more than 25 formal partnerships with a variety of businesses and industries located within its home region. In this project, Gateway was able to use its experience in developing and building stakeholder engagement to work with ESTO to do the same in Morocco. Some of the groups that Gateway and ESTO worked with included:

- **Administrators**—For this project to be successful, ESTO needed the support of top-level leadership and staff. Positioning this project as something that would create a world-class automotive technology program was a key component.
- **Instructors**—Linking the U.S. instructors with their Moroccan counterparts created important alliances that resulted in shared ideas, techniques, and approaches to student learning.
- **Industry**—Getting industry on board became easier when they were shown how this program would result in a well-trained, well-prepared and flexible workforce pipeline.
- **Students**—The prospect of working with state-of-the-art equipment and that doing so would lead to employment was enough to garner the support of prospective students.

## 2. The Importance of Benchmarking

This project established a new benchmark in career and technical education for ESTO and the BMENA region. The benchmark included facilities, curriculum, equipment, teaching methodologies, business engagement, advisory councils,



## Implementing the Partnership

Each partner had specific responsibilities that lead to success

### ESTO

- \* Had the initial vision to create a regional training center
- \* Had to expand its training options to include diagnostic training
- \* Worked closely with local stakeholders to ensure support

### Gateway Technical College

- \* Was the model of a best-practice automotive diagnostic center
- \* Established trainer-to-trainer and instructor-to-instructor relationships
- \* Assisted ESTO in the establishment of local business partnerships

### NC3

- \* Developed the sustainability model for ESTO along with the scalability model for the BMENA region
- \* Provided a platform for ESTO to interact with certifying centers and instructors from across the United States

### Snap-on, Inc.

- \* Secured equipment and installation



internships and more. Gateway mentored ESTO in understanding career and technical education best practices used at its college, which could be adapted for implementation in Morocco. Now, as the region increases its capacity, it has a new institution (ESTO) that can serve as that benchmark.

dialog and form partnerships that provide meaningful career opportunities for students and economic development opportunities for the region.

### 3. Paradigm Shift

Gateway and NC3 helped ESTO's staff understand that just as important as training the students was teaching students how to apply their training to solve problems, support manufacturing applications, and drive productivity. A paradigm shift from academic theory to hands-on application was necessary in order for students to be better prepared for the jobs in the region. The paradigm shift included the fact that education and industry can engage in meaningful

### 4. Industry Involvement is Crucial

Due to its partnership success, Gateway knew that for a project of this magnitude to be successful, industry needed to be involved in the beginning:

**The participation of NC3 brought in an even larger network of schools. In fact, as part of this project, ESTO is now a member of NC3, with access to the knowledge and best practices of all the participating schools.**

- **Industry needs to be aware** that its commitment is needed at all levels—from the owners to the front-line employees. And all of them should be involved in working with the training institution.
- **Industry must provide input** on the learning environment, the skills needed, and the equipment being used.



- **Industry must remain engaged** if the program is to be successful. Industry can serve on an advisory council to ensure that the curriculum, equipment, and facilities remain up-to-date and on trend with industry needs; provide internships and work-based learning opportunities for students; hire graduates; and provide access to equipment distributors and/or donating equipment or materials.

## 5. Think Networking

One of the most important outcomes of this project was the development of several networks. Having these will help ensure ongoing success. Some of the networks that were developed during this project include:

- **Instructors**—Gateway made its top instructors available for this project and for the instructors in Morocco. This group now has an international network of instructors all working to ensure student success.
- **Schools**—The nature of the project brought Gateway and ESTO together on several levels. The participation of NC3 brought in an even

larger network of schools. In fact, as part of this project, ESTO is now a member of NC3, with access to the knowledge and best practices of all the participating schools.

- **Administrators**—A project of this magnitude does not succeed if the school leaders are not engaged. This project allowed the administrators at both institutions to have high-level strategic discussions.

## 6. Focus on implementation

If there is one area of a project like this to focus extreme energy, staff time and attention to, it's implementation. Without an effective implementation plan, all the planning and preparation could be a waste. It was because of the importance of implementation that Gateway wanted to conduct the train-the-trainer program during the first phase of the project. What was also important was establishing a way to manage the entire project. NC3 lead this aspect by holding regular conference calls, in-person visits, and providing a platform for all parties to interact.



## 7. Be Sustainable

All international projects begin with good intentions. The trouble is many of them result in one-time or limited success. The success of this project would mean success in Morocco and the entire BMENA region. As such, the partners in this project designed it to be sustainable. Through train-the-trainer programs, several supportive networks, and buy-in from the key stakeholders, Gateway believes that this project has the elements it needs to be sustainable and successful.

### >>> Conclusion

Nearly six years ago, this project began as an idea: An idea to provide high-quality education, aligned closely to industry needs that would lead to sustainable employment. From the outset, Gateway Technical College and NC3 were committed to making this idea a reality.

Gateway shared its resources, its staff and its expertise to help establish a new partnership model in the BMENA region, which served to reaffirm its global leadership role in workforce development. It took the successful model that was created in the U.S. and adapted it to work in Morocco.

Doing so allowed Morocco, and ESTO in particular, to create a state-of-the-art, modern automotive diagnostic facility that will serve as a benchmark for the entire BMENA region. In addition, Gateway and NC3 empowered ESTO to become a regional resource with the potential to train more than 500 instructional staff. At the same time, it is primed to help increase the number of certification centers in the region to more than 250.

Thanks to this successful project, Gateway and NC3 have left a sustainable footprint in the region, an effective workforce development system, and created a replicable global industry partnership. They have also learned:

Gateway and NC3 have left a sustainable footprint in the region, an effective workforce development system, and created a replicable global industry partnership.

- We will all have better lives if we build and strengthen partnerships with educators in other countries. We can learn much from each other. As industry leaders have told education, we need workers with cultural understanding and a global mindset.
- As we learn to integrate our knowledge and skills across the trades, we can create and build systems that will empower individuals, communities and countries.
- It is critical that we continue to stretch our creativity and innovation and help our students make this part of their future.



## >>> Next Steps Goals

### Automotive and Mechatronics Program Sustainability Plan

- Establish funding for Scale up of Ten new Automotive, Energy and Manufacturing (mechatronics) technology throughout Morocco
- Support Morocco regional and national economic growth plans
- Continued implementation of curriculum and Industry recognized credentials in collaboration with US Community Colleges
- Develop professional network of certified instructors across nation
- Engage additional industry partners
- Extend Business / Education Partnerships
- Establish institutional capacity building with US Community Colleges

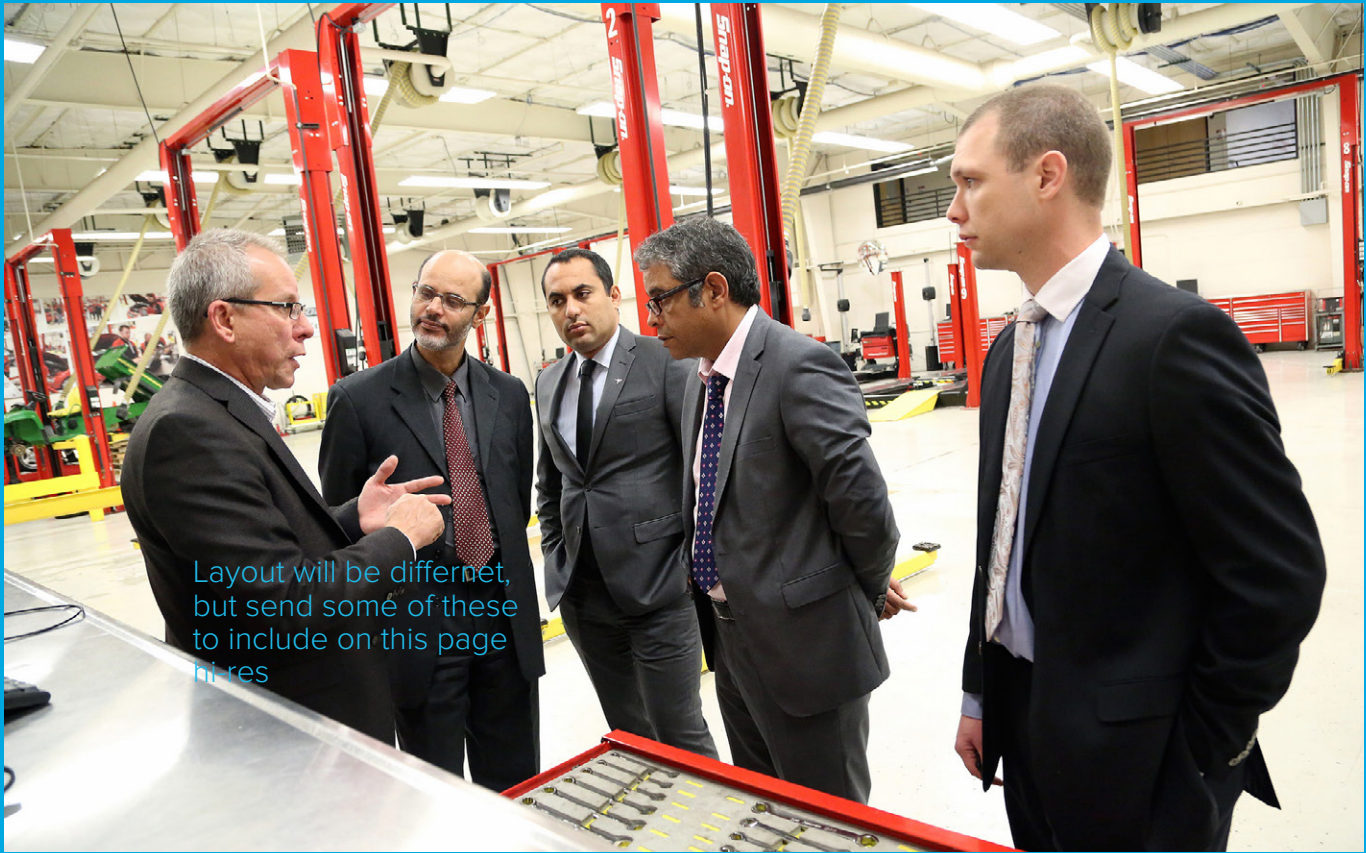


## Proposed Timeline of Next Steps

>>> 2015	>>> 2016	>>> 2017
<ul style="list-style-type: none"> <li>• <b>September:</b> Begin EST inaugural 2 year Automotive Technology degree program</li> </ul>	<ul style="list-style-type: none"> <li>• <b>March:</b> Technology Leadership conference, Oujda Morocco, Morocco and BMENA region</li> <li>• <b>July:</b> NC3 Global Leadership conference, USA</li> <li>• <b>September:</b> Second Class begins</li> </ul>	<ul style="list-style-type: none"> <li>• <b>March:</b> Technology Leadership Conference, Oujda Morocco</li> <li>• <b>May:</b> Graduation of first students from 2 year Automotive &amp; Mechatronics Technology Program</li> </ul>



# Trip to Gateway by Moroccan Instructors



Ecole Supérieure de Technologie (ESTO)  
Oujda, Morocco