2017-2018 QUANTITATIVE TECHNIQUES FOR ECONOMICS & MANAGEMENT

Annual Report
As the new Chair of the QTEM Board, it is a great honor for me to write this message to my colleagues from the QTEM Network, our students and alumni, our international corporations and friends around the globe.

The past year has been a milestone for the QTEM Network. As you can see in this first Annual Report, it has been a year of firsts, outstanding achievements, and growth. Thanks, notably to the great leadership of the outgoing Chair, Bruno van Pottelsberghe, we have created a strong foundation and are in a great position for making next year even better. I am committed to following and reinforcing this path.

The rapid acceleration of artificial intelligence and increasing reliance on big data, demands our attention and adaptability in training the next generation of business leaders. With the active participation of our academic and corporate partners, our students and the QTEaM, I am confident in our ability to push the network farther - to the Americas and Asia Pacific, enhance our position as thought leaders, and successfully prepare our students to use analytics to create a better world.

I appreciate the confidence my colleagues have shown in me by electing me to serve as Chair of the Board and I look forward to our shared challenges and successes in the year ahead.

Federico Pasin
CHAIR OF THE BOARD
HEC Montréal
This year was filled with accomplishments for QTEM: the website was firmly upgraded with plenty of helpful features, the Data Challenge was launched with tremendous success, and a remarkable trend has been set amongst the students—the first Student Association was launched! Under its umbrella, students now have local clubs in Amsterdam, Brussels, Frankfurt, Lausanne, and Rome, five in total with no doubt more to come. The goal of the QTEM Global Student Association is to connect, engage and empower students. This year, the local clubs organised no less than eleven activities around the globe, involving more than 50 students. Both prospective and current students highly appreciated the opportunity to connect. The QTEM Student Association will continue to advocate the importance of empowering students and their career development.

Emma Declercq
STUDENT ASSOCIATION PRESIDENT
Solvay Brussels School of Economics and Management
QTEM 2017-2018 BY THE NUMBERS

- **4** QTEM FULL-TIMERS
- **3** QTEM PART-TIMERS
- **293** NUMBER OF ENROLLED STUDENTS
- **105** NUMBER OF ALUMNI
- **1584** AVERAGE NUMBER OF LANGUAGES QTEM STUDENTS SPEAK
- **29** QDC PARTICIPANTS
- **23** ACADEMIC PARTNERS
- **16** CORPORATE PARTNERS
- **482** NUMBER OF ESPRESSOS CONSUMED AT QTEM HQ
- **244** NUMBER OF ALLOCATED DESTINATIONS
- **5** CONTINENTS WHERE YOU’LL FIND QTEM
- **16** COUNTRIES WHERE YOU’LL FIND QTEM
- **41%** PERCENT OF FEMALE STUDENTS
**ALUMNI**

Where alumni work

- Research: 14%
- Oil and energy: 3%
- Academic career: 4%
- Information technologies: 8%
- Financial services: 14%
- Banking: 17%
- Consulting: 34%
- Others: 6%

95% of alumni respondents found a job within 3 months of graduation.

81% of alumni respondents work at large companies* (more than 250 employees).

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QTEM has an excellent net promoter score of 57.14.

**Taking Advantage of the Network Effect**

ONE OF THE BEST WAYS for business schools to create extraordinary opportunities for students and gain global visibility for themselves is to join academic networks of international institutions. Those were the goals for the Solvay Brussels School of Economics and Management when it initiated the Quantitative Techniques for Economics and Management alliance, or QTEM.

(QTEM became a member of AACSB)

How QTEM helps bridge the data science skills gap

It has been a couple of years now since Bruno Van Pottelsberghes, Dean of Solvay Brussels School of Economics and Management first talked to me about QTEM, or Quantitative Techniques for Economics & Management Masters Network. The discussion really struck a chord with me, because my experience until then had been that academic institutions did not tend to have well-structured and dynamic links with industry. This QTEM Network seemed to give a pretty good answer to that.

Using analytics to create a better world

Big data and analytics may bring to mind endless spreadsheets and massive mainframe computers but the new world of data analytics is dynamic, connective and rapidly evolving – and the QTEM network aims take it even further.
THE YEAR IN PICTURES

1. GRADUATION CEREMONY, LAUSANNE, SWITZERLAND (NOVEMBER 2017)
2-3. GRADUATION CEREMONY BERTRAND PICCARD COHORT, LAUSANNE, SWITZERLAND (NOVEMBER 2017)
4-6. ANALYTICS CONFERENCE, LAUSANNE, SWITZERLAND (NOVEMBER 2017)
7. BANCO SANTANDER SIGNING COOPERATION AGREEMENT
8. PLANNING THE ANNUAL EVENT
Twenty-nine QTEM students from 11 universities around the globe participated in the QTEM Data Challenge from February to May 2018. The students were grouped in multicultural teams of 3 participants and worked together remotely on real data from AB InBev – the largest beer company in the world – or the European Commission.

**CHALLENGE 1.**
AB InBev was a key partner for the first challenge, 20 QTEM master students used advanced analytical techniques to forecast beer sales but also proposed new approaches. For example, one of the teams designed an application which analyzed “feelings” behind posts on social networks as a possible indicator of sales.

“A QDC was one such wonderful event, that provided me with an opportunity to mentor students from diverse backgrounds on an analytical project. The curiosity of the students inspired and rekindled the spirit of learning within me.”

Patrice Ye, HEC Lausanne

“Throughout the Challenge, I improved drastically my analytical, interpersonal, and presentation skills while having fun.”

Enrichetta Giurickovic, LUISS

**CHALLENGE 2.**
Nine QTEM students chose to participate in the second challenge on data from over 2 million Erasmus exchanges. They had to use analytics to understand and improve student’s mobility experience. Creativity was at the center of this challenge. The teams came up with interactive maps showing Erasmus flows, econometric models to explain such flows and new indicators to measure the gains from Erasmus experience.

“With the QDC it is a fantastic learning opportunity, incomparable to basic school work projects.”

Danielle Rubas, Solvay Brussels School of Economics and Management

“Our teammates were all highly skilled...I learned a lot from my teammates”

Yuichi Komiyama, Waseda

“I could explore a new field of business, on which I had minimal experience.”

Enrichetta Giurickovic, LUISS
Artificial intelligence and data science represent another revolution that industry must deal with – and how we deal with this revolution will have direct consequences on business. It is for this reason that the QTEM network is so crucial to the corporate community. QTEM is training students to be leaders in the field of data analytics through practical and theoretical exposure. It is at this multiple crossroads of academia and corporate environments, of data analytics and business management, where QTEM truly adds value. Projects such as the QTEM Data Challenge and mandatory data analytics internships create opportunities and valuable learnings not only in pure analytics but in the context of a globalized and multi-cultural world. This approach helps students develop necessary skills to create value by integrating data science and AI with other fields of expertise.

As the President of the Corporate Advisory Council, it has been my pleasure to consolidate the advice of all corporate members to the Network and to help it develop into the leading organization it is today.

Nicolas Cudré-Mauroux
GROUP RESEARCH & INNOVATION GENERAL MANAGER
Solvay S.A.

On 7 June 2018, QTEM Deans, along with Corporate Partner and Student representatives, held the first General Assembly in Copenhagen, Denmark and formalized the new governance structure. The General Assembly includes the Dean of each university. We are extremely pleased to announce the new Board, comprised of:

FROM LEFT TO RIGHT: Philip Vergauwen (Solvay Brussels School of Economics and Management), Janicke Rasmussen (Vice-Chair, BI Norwegian Business School), Giorgio di Giorgio (LUSS Guido Carli), Federico Pasin (Chair, HEC Montréal), Michaela Rankin (Monash University). Copenhagen, June 2018.
THE WORLD IS YOUR CLASSROOM

The skill set of QTEM students is expanded in three different countries with international exchanges and internships abroad. Students have the freedom to set their own academic path by choosing different courses with QTEM Academic Partners around the world. Here what the QTEM program looks like in action for three of our students:

TESTIMONIALS

Patrick Dongelmans, Universiteit van Amsterdam
QTEM experiences have been of tremendous value in my job application process, and also in my day-to-day work. As a native Dutchman it was very challenging to find an internship, and later on a job, in Australia. The international outlook and quantitative nature of the QTEM program were vital when securing a position.

João Maria Guimarães, U.Porto
I can hardly limit the benefit of my QTEM experience to a single professional challenge. When working in a fast-paced environment with multiple stakeholders, and while conducting time-pressed tasks, one certainly acknowledges the skills acquired during the QTEM program.

Heidi Van Dyck, Solvay Brussels School of Economics & Management
I continuously have to apply analytics to solve problems on the job. On my first project I had my own workstream and needed to build a complex model from scratch; luckily I got the training I needed during my QTEM master!

Francesco Zucca, LUISS
Working in a very data driven company requires strong analytical and quantitative skills. My job also requires a lot of human interactions with very diverse people. My QTEM experience, plus my two exchanges, helps me a lot in all of my day to day activities.

Zeying Li, Monash University
I was first interested in the QTEM program because of the high qualifications necessary and for the opportunity to gain more international experience. My experience on exchange improved my understanding of business perspectives in an international context. If you have the chance to join QTEM, go for it!
Letter from QTEM Secretary General

Reflecting on the last year will inevitably involve a reflection on the debut of QTEM—just 6 years ago! There have been many accomplishments, learnings and growth that we are proud of in this past year, but even more so in context of the short time span since we began in 2012. In the 2017-2018 academic year we have welcomed three new Corporate Partners and two new Academic Partners; in the bigger picture we are now 23 universities in 16 countries and on 5 continents. We have seen our enrollment and alumni numbers grow and are proud of their outstanding achievements and success in the working world. Along with our students, we have launched 5 Student Clubs across the globe.

We have welcomed a new Corporate Relations Manager and a new Knowledge and Learning Officer to the QTEaM in Brussels. The network is now a member of AACSB and we have kick-started a yearly QTEM Analytics Conference that brings together industry and academia and focuses on how analytics can be used to create a better world. We have successfully launched the QTEM Data Challenge to reach excellent and positive feedbacks from both students and Corporate Partners. In June, we welcomed a new Board and formalized a new governance structure, as the QTEM network is now an official International Not-for-Profit Organization. And as we look to secure our position as thought leaders in the fields of data and analytics, we will continue to tap the expertise of our network, exploit our complementarities, adapt to changes demanded by market forces, and refine our formula for success. We look forward to the continued dedication and enthusiasm needed to grow our network in new regions, improve our offerings, and train the next generation of leaders in the fields of economics, analytics and management. Thank you to all of who have been a part of this great adventure of “using analytics to create a better world.”

Bruno van Pottelsbergh
QTEM SECRETARY GENERAL
CORPORATE PARTNERS