THE ECONOMIC GRAPH

2017 End-of-Year EMEA Report

Linked in ™

Executive Summary

There are more than three billion people in the global workforce, and LinkedIn's vision is to create economic opportunity for each and every one of them. The development of the world's first Economic Graph is key to making that vision a reality. The Economic Graph is a digital representation of the global economy, and a source of information for individuals, governments and private sector organizations that make decisions about jobs, education and training.

Today the Economic Graph is comprised of over 530 million members on LinkedIn around the world, 18 million companies, 29,000 institutions of higher education, more than 11 million open jobs and 50,000 skills. The Economic Graph is our true north—something that all LinkedIn employees are building together. Within that broader effort, a small cross-functional team focused on public policy and research works on helping LinkedIn become a primary source of insights and ideas that guide leaders' decisions on workforce development across the globe. The team does this by bringing to life research and pilot projects that help leaders understand and address the future of the global workforce.

This document is a high-level overview of our team's recent work in Europe, the Middle East, and Africa. First, we examine the work that our team has undertaken to better understand the workforce in specific countries in the European Union, including Belgium, the UK, Italy, and France. Second, we outline partnerships with national and international organizations -- such as the World Bank and the World Economic Forum -- over the past year.

■ EU National Projects

Belgium | Digital Belgium Skills Fund

In May 2017, we launched the Brussels Economic Graph report as part of Deputy Prime Minister Alexander De Croo's "Digital Belgium Skills Fund," a three-year initiative to help Belgians develop digital skills. The report found that Brussels is a "magnet for talent," gaining 18 new LinkedIn members for each one that moves away.

Last year, the Brussels-based Centre for European Policy Studies (CEPS) published a study based on LinkedIn data highlighting mobility and skills of IT workers in the EU. We continued our work with CEPS this June, launching a new study analyzing the movements of IT professionals between the EU and the UK. According to the study's authors, Britain's reliance on the EU for IT recruitment – one in ten new hires comes from the EU – suggests that even if the UK does not plan to restrict immigration for high-skilled workers, curbing overall immigration could have unintended negative consequences for the British tech workforce.

> *"Too often, when we talk about skills, education, and training…not often enough is the conversation based on facts. The Economic Graph is a great fact-base which shows…that there is great demand for jobs related to technology."*
>
> - Deputy Prime Minister De Croo

France | Conseil d'Orientation pour l'Emploi

We collaborated with the French Conseil d'Orientation pour l'Emploi, a permanent council set up by the Prime Minister that focuses on labor market and employment issues, on a report on Automation, Digitization and Employment in France which was published in September 2017. The report addressed the skills that will be increasingly in demand in the Fourth Industrial Revolution and how France currently stands as we enter into it. We provided granular analysis of the tech skills, their level of demand, concentration and transferability.

United Kingdom | Digital Talent and Workforce Report

Since 2015, we have been working with the Greater London Authority to provide insights into the city's tech talent in support of the Mayor's Digital Talent Programme, a £7m fund to equip young people with the necessary skills to fill a growing number of digital, creative and technology jobs.

In November 2017, we launched our first UK Workforce Report, drawing on the 23 million LinkedIn members based in the United Kingdom. November's report found that ten out of twelve regions of the UK are net importers of international talent, suggesting that even with Brexit approaching, the UK remains an attractive destination.

We also partnered with Tech City UK to provide insights for the first-ever report looking at UK tech skills by region, which was launched in December 2017. The report found that tech skills are evenly spread across the UK, although London and the South East have slightly higher levels than other regions. The report's findings also suggest that tech skills are highly transferable, as 36% of individuals now working in tech moved from non-tech jobs.

Italy | Work in Milano

Last June, we launched Milan's Economic Graph, examining hiring, migration, and skill trends among the 829,000 LinkedIn members in the city. The second edition of the Economic Graph report was launched this November at the "Work In Milano" event, co-organized with the Milan City Council. Speaking at the event, Cristina Tajani, Councilor for Labor Policy and Human Resources of the Milan City Council stated that *"Milan has always been the most dynamic city for the Italian labor market… Over the years, this has allowed us to observe and understand closely how the world of work is evolving and how it needs new digital tools to give companies the chance to find new talents and candidates to be found by companies, both public and private."*

◼ Multilaterals and International Organizations

World Economic Forum | Global Human Capital Report 2017

In 2017, LinkedIn collaborated with the World Economic Forum (WEF) in the development of a series of reports focused on human capital and the future of work, both globally and in specific geographic regions (including the Middle East and Africa).

In September, the WEF published its 2017 Human Capital Report, one of the leading commentaries on the current status, gaps, and potential in human capital across the world. The 2017 report includes an index ranking 130 countries on how well they are developing their human capital.

LinkedIn's insights and findings were a central part of the 2017 Human Capital Report. Economic Graph data highlighted the following, among other insights:

- **The breadth of degree specialization among different age groups.**
  Overall, our data found increasing diversification and specialization of degrees, reflecting increasing demand for more specific skill sets across the economy.

- **The extent to which different industries hire individuals with certain degrees.**
  Industries like consumer, media, and entertainment, as well as the public sector and nonprofits, hire from a wider pool of degrees than energy, financial services, healthcare, and telecommunications.

- **The distribution of "cross-functional" skills across ages and degrees.**
  We found that "cross-functional" skills (the most commonly mentioned skills across our global membership) are not evenly distributed across degrees. For instance, individuals who studied engineering or IT are more likely to have skills in project management than in customer service or leadership.

In addition to analysis of Economic Graph insights, the report also acknowledges the "unique and illuminating data on the global human capital landscape" that LinkedIn can provide -- as well as the concrete, immediate benefits such insights can deliver to governments, policymakers and other leaders.

World Economic Forum | The Global Gender Gap Report 2017

We also collaborated with the World Economic Forum in the development of its Global Gender Gap Report, which examines whether countries distribute resources and opportunities equitably between women and men.

As detailed in a blog post by Sue Duke, Senior Director of Public Policy, Economic Graph insights into global gender representation included:

- **Women represent fewer than 50% of leaders in every industry analyzed.** In some fields, such as energy and mining or manufacturing, the representation of women is even lower, with women holding fewer than 20% of leadership positions.

- **The rate of progress for women has been slow.** Over the past decade, the proportion of female leaders has increased by an average of just over 2% across the 12 industries studied.

- **When women are better represented in leadership roles, more women are hired across the board.** Economic Graph data suggest that a critical step in the closing the gender gap will be accelerating the representation of women in leadership roles.

World Economic Forum | Africa Report

In May of 2017, the WEF published an executive briefing focused on the future of jobs and skills in Sub-Saharan Africa. Thanks to a research partnership with LinkedIn, the briefing includes detailed information on the emerging jobs and in-demand skills across the continent. Economic Graph findings in the briefing include:

- Trending professions on the continent include the creative industries, food technologists, 3D designers, data centre workers and care, education and health workers.

- More than one-third of professionals in Africa with postsecondary credentials hold degrees in business, administration, and law.

World Economic Forum | MENA Report

LinkedIn also supported the WEF's development of an executive briefing focused on the Middle East and North Africa (MENA). The Economic Graph team provided WEF researchers with data on the state of education, skills, and jobs in the region; highlights included:

- The most common types of high-skilled employment in the region include commercial bankers, corporate finance specialists and accountants, schoolteachers and academics, and engineers.

- The MENA region demonstrates a distinct tendency towards a select number of job specializations, resulting in a somewhat less diversified talent pool compared to other regions as measured by the WEF.

The World Bank | Competitive Cities Project

In 2017, LinkedIn kicked off a partnership with the World Bank aimed at uncovering labor market insights in developing economies worldwide. The first pilot project, which took place in South Africa, leveraged Economic Graph data to better understand indicators of entrepreneurial activity, analyze the skills in demand across industries, and examine migration patterns of talent in and out of the country.

Among the highlights from the pilot, which was featured in the World Bank's Economic Update for South Africa:

• South Africa is losing more professionals than it is gaining, due in large part to emigration to the United States, the UK, and Australia.

• However, LinkedIn data also indicate that South Africa is a fertile environment for entrepreneurship. Cape Town, Pretoria, and Johannesburg have a "large base of entrepreneurs that outstrips that of similar cities in larger countries.