

# NATIONAL TECHNOLOGY PACT 2020 TARGETS FOR 2016 - 2020



Technology is everywhere. It affects us all, both at a personal level and throughout the society we live in. It is the greatest driving force behind our economic prosperity. Crossovers between technology and industry sectors such as health care, food, energy and sports are becoming increasingly prominent and are set to have a major impact on our working environment. Demand for skills and knowledge relating to the application of technology in professions outside of the technology sector will inevitably increase in the years ahead.

As of 2013<sup>1</sup>, the education community, business sector and government have been jointly developing the Technology Pact in an effort to structurally improve alignment between education and the technology job market, and reduce the shortage of technically trained staff.

Based on the current situation in 2016, we will have to update the Technology Pact in order to adequately respond to the technological developments that are expected to radically and rapidly transform our world in both social and economic terms<sup>2</sup>. We will see the emergence of entirely new positions, in industries we cannot yet predict. This labour market dynamic will inevitably bring considerable challenges. How can we ensure that the young people and employees of today possess the skills they need to function on tomorrow's labour market? How can we help those working in the technology sector adapt to any changes they face, and how will this affect the workplace of the future?

This is why the objectives of the National Technology Pact have now been updated. Its ambitions, however, remain the same: developing a structural approach to ensure a well-trained workforce with enough smart and capable technicians for the jobs of today and tomorrow.

## CONTINUED URGENCY

The efforts undertaken since 2013 have put us on track to achieving successful results in every area. A growing number of young people are opting for technology, we are seeing greater commitment from the business community and the range of programmes offered at higher vocational education level has become broader and more transparent. However, the urgent need for the Technology Pact remains. There is still considerable scope for improvement in terms of the number of preparatory secondary vocational education and secondary vocational education pupils opting for a technical degree programme and the number of girls enrolling in technical programmes. We also expect to see a major shortage of qualified technology lecturers in the vocational education sector. As regards student outflow, the Netherlands has a lower proportion of secondary vocational education graduates with exact sciences profiles compared to the European average. What's more, the higher professional education sector is actually witnessing a decline in the number of exact sciences degrees.

The Research Centre for Education and the Labour Market (ROA)<sup>3</sup> expects the number of jobs in the Netherlands to grow by a total of approximately 400,000 in the period until 2020. According to the latest figures from the Employee Insurance Agency (UWV),<sup>4</sup> technical and ICT-related professions will continue to experience labour market shortages in the medium term. Examples of such professions include: electricians, CNC operators, technical calculators, maintenance engineers, specialist language programmers and process operators.

Ensuring the availability of sufficient well-trained technicians at all levels and in all fields will be crucial in order to maintain the Netherlands' leading position in the global economy.

## A REGIONAL APPROACH

From 2013 onwards, the various regional partners have made great strides in addressing the challenges of the Technology Pact – with each region having to deal with its own specific dynamics, labour market issues and ambitions. A finely-meshed collaborative alliance between the provinces, sub-regions and municipalities will contribute to the success of the Technology Pact. The coalition agreements between the provinces for the 2015-2019 period are generally auxiliary to implementation of the Technology Pact. They serve to optimise the alignment between education and regional labour markets, while ensuring continued employment opportunities within the technology sector.

1 On 13 May 2013, over 60 parties signed the National Technology Pact 2020

2 World Economic Forum, Davos, January 2016

3 'De arbeidsmarkt naar opleiding en beroep tot 2020', The Research Centre for Education and the Labour Market (ROA), Maastricht University, 8 December 2015

4 Description of Labour Market for Technical and ICT-related professions, UWV, 10 September 2015.



## NATIONAL TECHNOLOGY PACT 2020 OBJECTIVES

Continual interaction between the education community and business sector will be crucial in ensuring the future availability of well-trained engineers. This interaction will help ensure qualitative, up-to-date education that reflects current labour market demands. The twelve objectives, which have been partially reformulated and aligned with existing agreements, offer all partners a basis upon which to continue and initiate relevant measures, achieve results and engage in further collaborations over the coming years.

### CHOOSING TECHNOLOGY

*Discovering technical and technological talent at an early stage, attracting expert lecturers in order to provide inspirational basic education*

1. Ensure that all primary schools offer their pupils Science & Technology education on a structural basis by 2020, with a prominent emphasis on digital skills.
2. Help primary education teachers improve their skills in the area of Science & Technology education.
3. Strengthen public-private partnerships in support of primary and secondary education.
4. Ensure greater intake and retention of secondary education pupils opting for an exact sciences profile, and effectively apply career orientation and counselling programmes.
5. Improve the alignment between secondary education, vocational education and higher education.
6. Stimulate the professionalisation of current lecturers and increase the number of lecturers with educational Master's degrees in the secondary education system.

### TECHNOLOGY EDUCATION

*Training technical professionals for the future*

7. Active collaboration between the education community and business sector in terms of the training and education of lecturers at vocational education institutions.
8. Ensure more sustainable public-private partnerships within the vocational education sector.
9. Ensure effective alignment between the available range of education programmes, the regional business community and secondary and vocational education institutions, as well as sufficient suitable work placement positions/apprenticeships (for both boys and girls).
10. Ensure effective alignment between higher education institutions and the business community and within the higher education community itself, with a greater focus on international and technical talent.

### TECHNOLOGY JOBS

*Retaining technical professionals and talent for the technology sector*

11. Promote collaboration between regional and industry sector networks, and offer better access to labour market information.
12. Make optimal use of technically-skilled staff and their talents and retain them for individual companies, the overall industry sector and technology itself by investing in sustainable employability.

For the full text of the Technology Pact, see

[WWW.TECHNIEKPACT.NL](http://WWW.TECHNIEKPACT.NL)