

**Intervention by Inese Podgaiska, Secretary General of the Association of Nordic engineers at the event:  
Fundamental Rights and AI-artificial intelligence – together or separate, 17 September 2018**

The Association of Nordic Engineers (ANE) was established in May 2007 as a binding cooperation between the founding organisations: the Swedish Association of Graduate Engineers (Sveriges Ingenjörer), the Danish Society of Engineers (IDA) and the Norwegian Society of Engineers and Technologists (NITO). The Association of Chartered Engineers in Iceland, VFÍ has joined ANE in January 2018. Together, ANE represents more than 340,000 engineers in the Nordic Region. The negotiation with Finland on its membership is in process.

**Our Objectives**

- Influencing relevant policy and decision-making processes at global, EU and national level
- Promoting the role and the professions of engineers in the society
- Supporting sustainable education policies
- Enabling enough supply and demand for skilled engineers in future
- Advocating for engineers' mobility at global level, in EU and Nordic countries
- Safeguarding and improving working conditions for engineers
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**Our thematic focus**

- Education - skills, knowledge and competences development
- Digitalisation and Artificial Intelligence
- Sustainable Development

**Our work on Artificial Intelligence and ethics - "Engineers should come out of closet as ethicists"<sup>1</sup>**

The fancy automated gadgets and smart technological advances that have been taking their places in our lives are the creations of innovative engineers' minds. Some of them are welcomed as a relief in our busy daily life, whilst some are met with suspicion, and seen as a threat. Discussion about these technological developments are not helped by a tendency to polarise opinions. From one side we have fervent advocates of the gains, from the other - warnings about losses. **We need to invite engineers in the debate to inform politicians and broader public on the AI benefits and drawbacks.**

Engineering through its very essence intends to have impact on society, whether it is building bridges or creating social media platforms, the intention is to improve the status, grow the economy and protect people and the environment. The focus is often on achieving successful engineering outcomes for society and to limit harm. However, as our world rapidly changes, what constitutes a positive outcome and what could potentially cause harm becomes harder to recognize.

Across the engineering profession, there is increasing recognition that in a data driven, globally connected and aware world, ethical considerations need to be an explicit and integral part of engineering. Ethics should be embedded in the education systems and that engineers should adhere to a kind of Hippocratic Oath.

On 25<sup>th</sup> September, ANE in cooperation with IT-University of Copenhagen organized the AI and ethics hackathon: *Nordic engineers stand on the EU future AI and ethics framework*. Its aim was collaboratively develop a joint policy position reflecting the view of the Nordic engineers on AI and ethics.

Main aspects of our consideration:

1. Respect towards society
2. Transparency
3. Accountability and trust
4. Avoiding harm
5. Addressing Biases
6. Risk mitigation
7. Fairness and social justice
8. Respect of privacy

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<sup>1</sup> Martin Bentzen, Professor in Ethics from the Danish Technical University

It is commonly accepted that innovations can be used in a multitude of ways beyond their original research or design purpose. If something goes wrong, just putting the responsibility on the engineers will not work, the whole system of management layers should be accountable. It also requires political will, regulatory frameworks and ethically aligned business models.

“Ethics does not give us any recommendations or orders. Instead, it gives us practical tools to distinguish between good and bad reasons, thus making wise decisions”<sup>2</sup>.

#### **Other relevant information mentioned during the intervention**

1. **Associated partner in the Erasmus+ project – Nordic STEM Initiative**, which aim is to modernise the engineering education for new generation by 2030, clarify the role of universities in continuous education and attracting more youth to STEM studies. The consortium consists of four technical universities from Denmark, Iceland, Sweden and Finland.
2. **Joint ANE survey on competence development barriers**  
Everyone has the right to quality education and competence development in order to maintain and acquire skills to remain in the employment and manage the transitions in the labour market, impacted by the digitalization processes. Even though the Nordic region scores high in terms of innovation and new technology, the talent shortage is becoming a sad reality. There is also an observed tendency where the national governments prioritize the low-skilled employees as a target group to benefit from the support in acquiring the lifelong learning opportunities.  
ANE report and key recommendations are expected to be finalised in November 2018.
3. **Cooperation with High Education Institutions – agreement with NORDTEK**  
ANE and the network of Nordic Technical Universities and Engineering Faculties, NORDTEK have signed a cooperation agreement. The focus of this cooperation is modernisation of technical education to ensure the availability of high-quality graduates in STEM and access to lifelong learning opportunities for those already in the working life.
4. **ANE is member of the EU AI Alliance and the EU Digital Skills and Jobs Coalition**

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<sup>2</sup> Norwegian Association of Engineers and Technologists, Code of Ethics