

EXECUTIVE SUMMARY:

Technology and an Inclusive Labor Market

Technology for our well-being and the well-being of future generations in
an Inclusive Labor Market



Question:

Can we design, introduce, deploy, and guide (future) technology in such a way that it contributes to an inclusive labor market, and in doing so, to a more inclusive society?

Prior

It's not possible to predict the future with certainty; however, in a world in which technology is increasingly making its mark on society, thinking about technology and what it might mean for an inclusive labor market, and therefore society as a whole, is both useful and necessary. Future-oriented thinking allows us to formulate goals and forces us to think about tomorrow's world and the well-being of future generations. The question of whether future generations will be happy and/or benefit from the technological choices made today has, to the knowledge of the Lab Future Generations (the "Lab"), not yet been asked in so many words, while it is an important and pressing question. After all, today's technology will directly affect current and future generations for decades to come.

Forward thinking underlies the Lab's work. The Lab's Acting Ombudsperson Future Generations ("Ombudsperson") expresses his opinion on issues that affect the well-being of future generations. To reach a Decision, the Ombudsperson follows the so-called "**Weg van de Kwestie**" [The Path of the Issue] developed by the Lab. A **QuickScan** based on desk research, interviews, and stakeholder analysis was written for this issue. In addition, a **Future Board** was organized. Participants in it were asked to envisage the brightest possible future in which technology plays a positive role in bringing about an inclusive labor market.

COLOPHON

Lab Future Generations

Amersfoortseweg 98, 3941 EP Doorn

Illustrations:

Lisa Dröes

Beeldreiziger | lisadroes.nl | info@lisadroes.nl

Layout:

Arko Dieden

Principal authors:

Penny Simmers

Tineke Lambooy

Miranda Willems

Background picture (cover):

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Importance of the Decision and the Lab Future Generations' wish

Work is the axis around which the economy revolves and plays a fundamental role in people's lives. Work helps people develop themselves, provides security, is a source of self-esteem, and brings people together. But will it always be that way? Technology plays a major role in the labor market and increasingly influences what the tasks to be performed are, the way work is performed, and the way work is found (matching supply and demand in the labor market).

Many are suspicious of the use of technology in the workplace. This is because they fear that technological applications may one day replace a large part of the working population or lead to a division in society. The latter concern stems from the idea that people with a distance to the labor market, or other marginalized groups, will not be able to keep up with the rapid technological developments. Also, in a broader social sense, there is a growing awareness of the potentially harmful consequences of the uncontrolled use of technological applications. The recent Dutch childcare benefits scandal, for example, has shown how easily the government's use of algorithms and big data, without meaningful human intervention, can lead to arbitrariness, privacy violations, and ultimately institutional discrimination.

Fear, however, is a poor counselor. One should always keep an eye on the positive effects of innovation and continue experimenting. Technology offers many opportunities and can actually help promote inclusion in the labor market, even making it the norm. For this to happen, it is important that technology is developed, deployed, monitored, evaluated, and adjusted with the right end goal in mind (i.e., welfare for future generations in the labor market) and under the right conditions. The Lab believes that it is a societal challenge and a collective duty to deploy technology in the right way for the benefit of an inclusive labor market and society, and thus for the well-being of future generations, both now and in the future. Therefore, the Lab investigates in this Decision how, with which goal in mind, and under what conditions technology can be used for the benefit of a (future) inclusive labor market, and thus society.

Using technology to create an inclusive current and future labor market

Technology can, and in the Lab's view will, play a key role in creating an inclusive labor market, provided that (i) there is meaningful human intervention throughout the entire life cycle of the technology; (ii) the human being as end-user, and his/her physical, cognitive, and socio-emotional needs are taken as a starting point in the choice of technology and are made central to its (further) development, implementation, growth and scaling up; and (iii) the development process has a clear ethical anchor aimed at promoting the common good.

Ethical anchor

Technology should be guided in society in an ethical way and society should be guided in the ethical use of technology. The aim should be to productively link ethics and innovation together. This means people should keep asking (ethical) questions when formulating the objective, and in the development, application, and monitoring of new technology. These questions will relate, among other things, to safeguarding social values (such as inclusion) and human rights (how can we ensure that everyone, also in the future, can continue to participate fully in an increasingly digital world), ecology (to what extent does the development process take account of the impact on nature and people here and elsewhere in the world), and governance (who develops, with what aim and under what conditions).

Make human beings and the desired, most beautiful, future central to the process

Technology is developed by and – if all goes well – for people and is aimed at a specific application of that technology in society. It is therefore of little use to think about technology without involving people, their specific context and general welfare. Moreover, if people themselves are part of the technological development process, they must be aware of their own prejudices. After all, if people aren't sufficiently aware of their own prejudices, new technologies will (continue to) reproduce human prejudices and will reinforce existing world views and forms of societal inequality. When considering future technology for an inclusive labor market, one should always keep foremost in mind for whom and for what purpose the technology is being developed, what central values are at stake, and what the possible social implications of the technology will be for inclusiveness in the labor market. Above all, does the new (or updated) technology promote the general well-being of current and future generations in the labor market or not?

Room for improvement

Current national and European thinking on technology lacks focused attention on the rights, interests and welfare of future generations. Moreover, practice still too often shows that choices are made in the design of technology that are not always in the interest of an inclusive labor market and society. The connection between developers and end users of technology needs to be made more consciously. To achieve this, norms and values surrounding (new) technology, as well as the awareness of its potential impact on the well-being of future generations, must be ingrained in culture and behavior. Employers have an important role to play here: employers have their finger on the pulse of the labor market and will play a pivotal role in creating an inclusive labor market, for current and future generations, with the help of (future) technology. They do not have to wait for new laws and regulations to be passed and can already bring about cultural and behavioral changes within their organizations. That is why the Ombudsperson addresses the following key takeaways and recommendations in the first instance, but not exclusively, to them.

Key takeaways & recommendations

- **Clear determination of objectives required: technology does not happen to us, it can be influenced**

The central question that both society and individual developers and employers who want to use technology in a work environment must continue to ask themselves is: what do we want technology to do for us and under what conditions? Attention to the interests, rights and welfare of current and future generations deserves a full place in this process.

- **Access: make knowledge of technology accessible to all**

Basic understanding of technology must become as natural as learning to walk. Therefore, invest (as an employer) in providing (basic) technological knowledge and skills. Ignorance can adversely affect the positive, inclusion-promoting, effects of technology.

- **Inclusiveness in development: recognize diversity, inclusion, and the promotion of general well-being as essential values in the development and deployment of (future) technology in the labor market**

For the (employer) user of technology, if one is not consciously engaged with technology, many of its (inclusion-promoting) possibilities will remain untapped. Or in other words, inclusive technology in furtherance of an inclusive labor market.

- **Involve stakeholders in the development process: for technology to benefit the well-being of present and future generations**

When deploying technology (as an employer), consider the purpose of a specific technological application and the needs and possible limitations of the end user(s). Actively involve those who will use technological applications in practice in the development process. Remember: end-user disappointment reduces the acceptance of new technology.

- **Use the following roadmap when developing and applying technology for our well-being and the well-being of future generations in an inclusive labor market.**

The Lab advises governments, private organizations, developers, and other relevant stakeholders to follow this roadmap when embarking upon new projects involving the development or renewal of technology (for the benefit of the labor market). In order to prevent people from taking a back seat to technology and to ensure a development and deployment process that is as inclusive as possible and that takes the well-being of current and future generations in the labor market as its starting point, the step-by-step plan described below should ideally be followed and repeated at regular intervals when defining the objective, developing, rolling out, and deploying each new technological application. This process should include representatives from the client, developers, end users, and those targeted by the technology, i.e. stakeholders. Following this roadmap is relevant because it creates a clear framework within which ethical questions and concerns can be addressed in a systematic and constructive manner. Thus, it becomes possible to steer technological developments in a desirable and manageable direction.

- 1) **Define the objective of the new technology**

Always ask yourself whether using the intended technological application will result in a good and balanced interaction between humans and technology.

- 2) **Submit the intended objective to a diverse group of relevant stakeholders for review**

The intended end users should not be left out of this process. Discuss and confirm the societal values and effects that are central to the technological application (e.g., promoting inclusion in the labor market) and specify which forms of discrimination could potentially play a role in its introduction. In doing so, be aware of your own biases. The technology must always be compatible with the formulated values and must serve the general welfare of current and future generations, otherwise do not use it unless there is a clearly formulated justification for doing so that is endorsed by all stakeholders.

3) **Determine how the objective will be reached (the 'how question')**

How will the objective (promoting inclusion, diversity, and well-being in the labor market or otherwise) be achieved? This question should again be presented to a diverse group of relevant stakeholders. The 'how question' allows conditions to be set for development and use of technology.

4) **Impact survey**

In doing so, pay specific attention to the social and environmental price of new technology, both in the development and deployment phases.

5) **Develop keeping co-creation in mind**

Co-creation is an essential prerequisite for an inclusive development process, and with that, end product. So, put together a diverse and representative design team, including the people who have to work with the technology. Intensive collaboration between developers, end users, and various experts is the best way to achieve impactful, appropriate, and usable innovation.

6) **Test and adjust (iterative approach)**

Develop in steps with interim opportunities for testing, amendment, and adjustment. By following an iterative approach, the technology is made suitable and workable for the intended end users step by step in a controllable manner and with advancing insight.

7) **Monitor and evaluate**

Monitoring, evaluating, and possibly adapting technology will be a dynamic process in considering choices in furtherance of the general welfare and labor market inclusion.

**When taking each of these steps,
always keep the brightest possible future for
the well-being of future generations in mind.**

Sincerely yours and for our future generations,

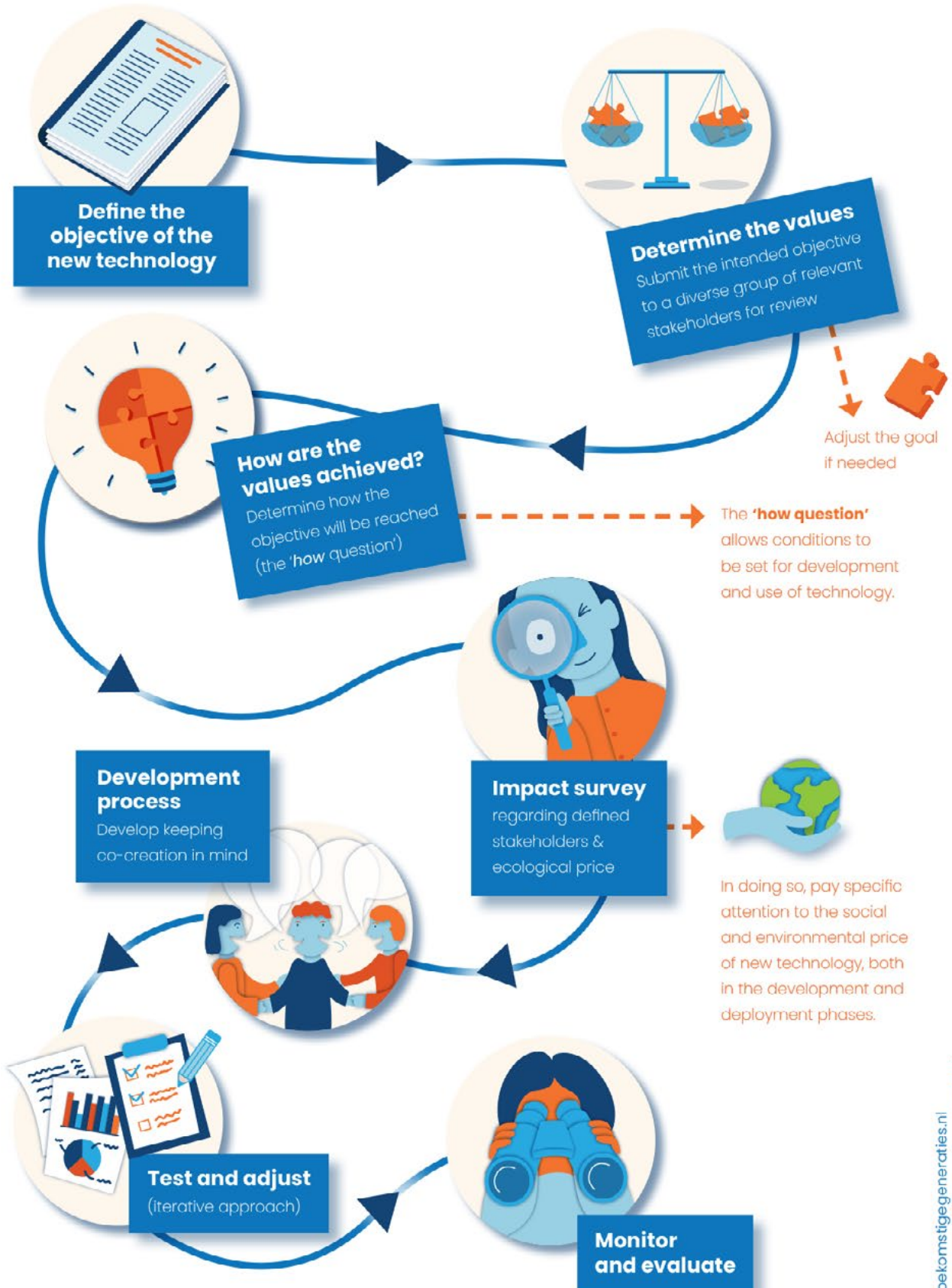
mr. Jan I. van de Venis
Acting Ombudsperson Future Generations

Roadmap

Future-oriented Technology

Keep a reign on new technology

The relationship between humans & technology



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