inzet
van
intelligente
techno
logie

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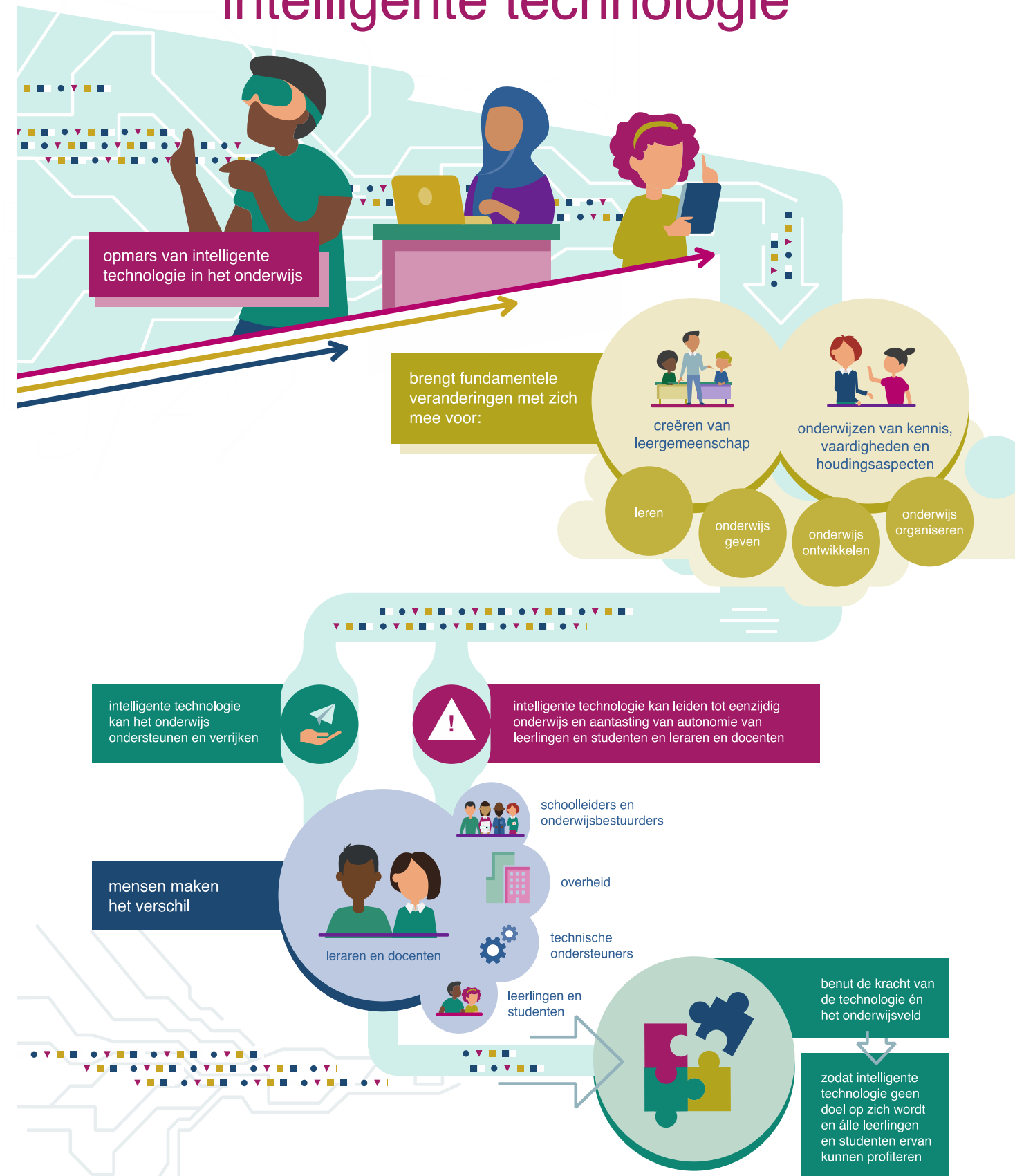
use of intelligent
        technology

        dutch educational council
(2022)

English summary available at:
https://www.onderwijsraad.nl/publicati
es/adviezen/2022/09/28/engelse-
samenvatting-inzet-intelligente-
technologie

hein broekkamp, rabat,
may 2023

inzet van
intelligente technologie

opmars van intelligente technologie in het onderwijs

brengt fundamentele veranderingen met zich mee voor:

creëren van leergemeenschap

onderwijzen van kennis, vaardigheden en houdingsaspecten

leren

onderwijs geven

onderwijs ontwikkelen

onderwijs organiseren

intelligente technologie kan het onderwijs ondersteunen en verrijken

intelligente technologie kan leiden tot eenzijdig onderwijs en aantasting van autonomie van leerlingen en studenten en leraren en docenten

mensen maken het verschil

schoolleiders en onderwijsbestuurders

overheid

technische ondersteuners

leraren en docenten

leerlingen en studenten

benut de kracht van de technologie én het onderwijsveld

zodat intelligente technologie geen doel op zich wordt en álle leerlingen en studenten ervan kunnen profiteren

Main conclusions

1. The use of intelligent technology is likely to change educational processes in fundamental ways
2. Processes may change in positive or negative ways
3. An active role of educational stakeholders is required

This presentation

1. Why this report?

2. How did we proceed?

3. Implications for teachers, educational leaders, government and possible implications for other EUNEC-countries

Why this report?

- Succeeding our general advice about the use of digital technology (2018) and a report of the Scientific Council of Policy Making (2021)
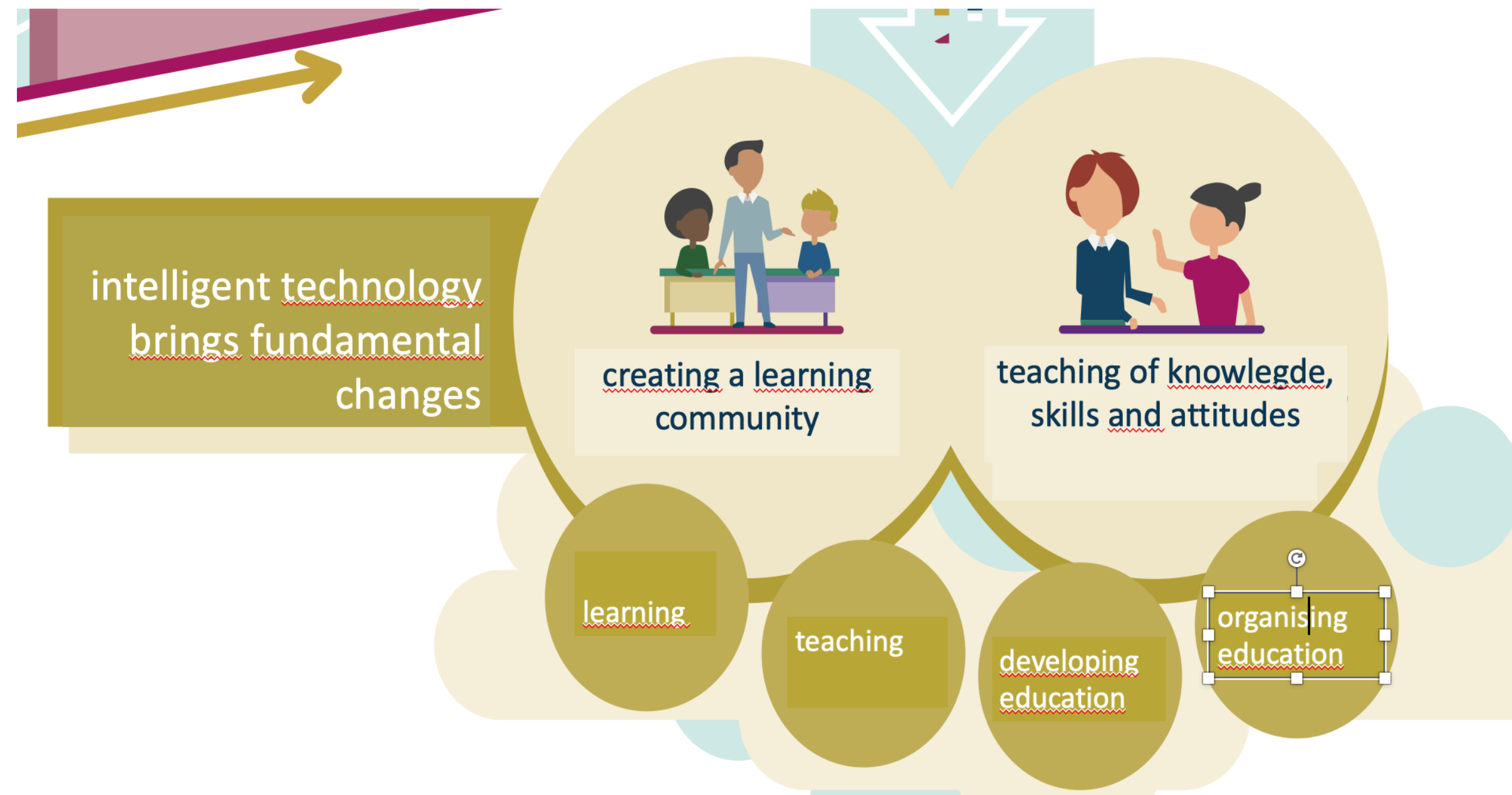- Request of the Minister of Education

How does intelligent technology affect educational processes?

rise of intelligent technology

How did we proceed?

- Educational processes constitute the chapters and sections of our report
- For each process: plausible positive and negative scenario's, grounded in
  - research literature
  - visits to educational institutions
  - interviews with educational
  - and technology experts

intelligent technology brings fundamental changes

creating a learning community

teaching of knowlegde, skills and attitudes

learning

teaching

developing education

organising education

Implications for teachers

1. Teaching and developing education with intelligent technology in complementary ways
2. Teaching students to use intelligent technology
3. Monitoring student interaction with intelligent technology
4. Learning about the use intelligent technology
5. Contributing to the development of (using) intelligent technology

Implications for educational leaders

1. Ensure that all students and teachers possess sufficient digital literacy (prevent 'digital divide')
2. Facilitate teachers (e.g., bringing in technology assistants)
3. Stimulating educational development, professional development and collaboration
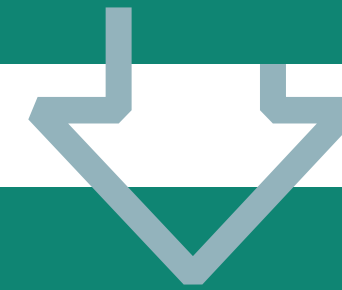
Implications for government

1. Develop frameworks to protect privacy and data security
2. Set attainment targets regarding the digital literacy of students
3. Prevent market dominance by a small number of providers
4. Stimulate and fund national and international collaboration projects for the development of the intelligent technology

General implications

1. Seize opportunities and manage risks of intelligent technology
2. Take a broad perspective on education
3. Prevent technology determinism
4. Consider technology as complementary
5. Stimulate active role of actors
6. Equip actors
7. Avoid a digital divide
8. Encourage co-creation at different levels education system
9. Invest
10. Set frameworks

use the power of technology and education professionals

in order to prevent that technology becomes an end in itself
and to ensure that all student profit from the technology

intelligent technology impacts teaching, among other educational processes

- Create a learning community
    - Engage learners and students in the learning community
    - Organize joint activities
    - Create learning culture
    - Develop interpersonal relationships with pupils and students
    - Ensure well-being and health of pupils and students
- Teach knowledge, skills and attitudes
    - Present, discuss and apply (with guidance) learning materials
    - Testing and giving feedback
    - Determining learning objectives, work formats and learning resources
    - Taking into account differences in educational needs among pupils and students
    - Promoting independent learning of pupils and students