Workshop: “VET schools in times of disruptive technologies”

- Opening (promo) welkom, voorstellen, programma
- Presentatie technologies, digital transformation, ontwikkelingen groen en scholen
- 2 pitches: cross-overs en hot-spot
- Workshop
- Wrap up
- Afsluiting

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Amazon kills it’s A.I. recruitment system as it exhibited bias against women

Amazon Inc's machine-learning specialists uncovered a big problem: *their new recruiting engine did not like women.*

The company's experimental hiring tool was used for job applicants' resumes with the aim of mechanizing the search for top talent. Artificial intelligence is used to give job candidates scores ranging from one to five stars. Amazon's computer models were trained to vet applicants by observing patterns in resumes submitted to the company over a 10-year period. Most came from men, a reflection of male dominance across the tech industry. In effect, Amazon's system taught itself that male candidates were preferable.

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VET schools in times of disruptive technologies

World Horti Centre

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Technologie that excists

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Robots getting smarter

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Coming soon

Floating farm

Vertical farming

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Wireless services, how fast are they?

GPRS	EDGE	3G	4G	5G
1997 50 Kbps	1998 250 Kbps	2001 384 Kbps	2009 150 Mbps	2020 6400 Mbps

5G Fieldlabs

KPN Precisielandbouw

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DIGITAL
TRANSFORMATION

Digitization

The process of making information available and accessible in a digital format.

Digitalization

The process of considering how best to apply digitized information to simplify specific operations.

Digital Transformation

The process of devising new business applications that integrate all the digitized data and digitalized applications.

Digital transformation: Taking advantage of digitalization to create completely new business concepts

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Chatbots – talking to you…

- Answering questions about product information, allergries, preparing, healthcare...
- Dialogue
- Supporting by preparing menu’s in questions/ answers
- Searching for shops in database
- Google-maps
- Facebook Messenger, Skype, Yahoo, Google Talk, Telegram, WhatsApp en Slack (cloud-based-groupware)
- Chatbot as a buddy (Instant Messenger-program)

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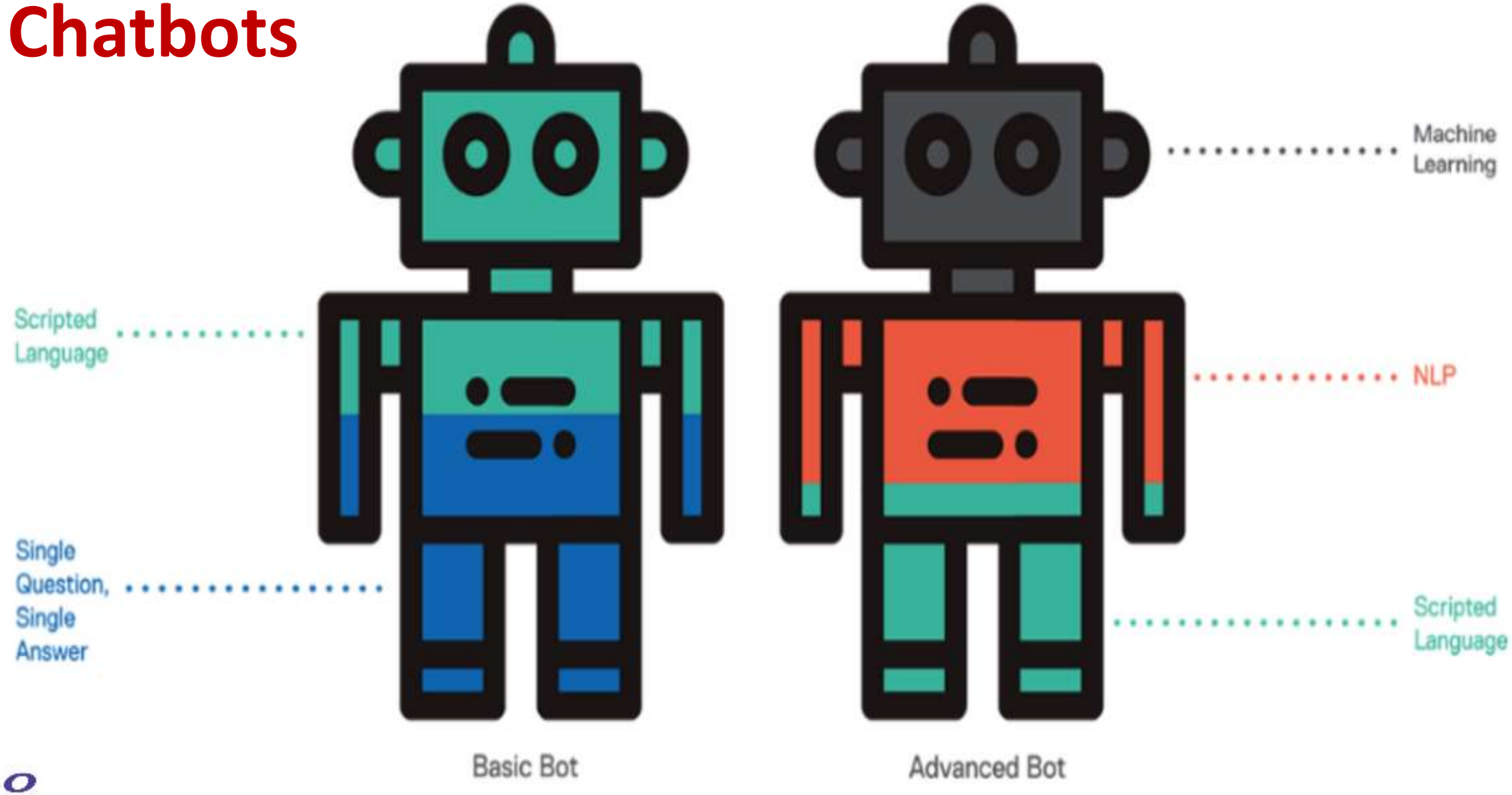
Chatbots



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Partijen die chat-bot-principe gebruiken

Google For Jobs

With Google for Jobs the cloud services giant is going to put its formidable search engine prowess to work helping people find available positions at the skill and compensation levels they are looking for.

Voor het zoeken naar banen die bij je passen (eind 2018)

amazon

HEALTH & PERSONAL CARE

Keten voor gezondheidszorg

Pilot in Amerika met 840.000 werknemers

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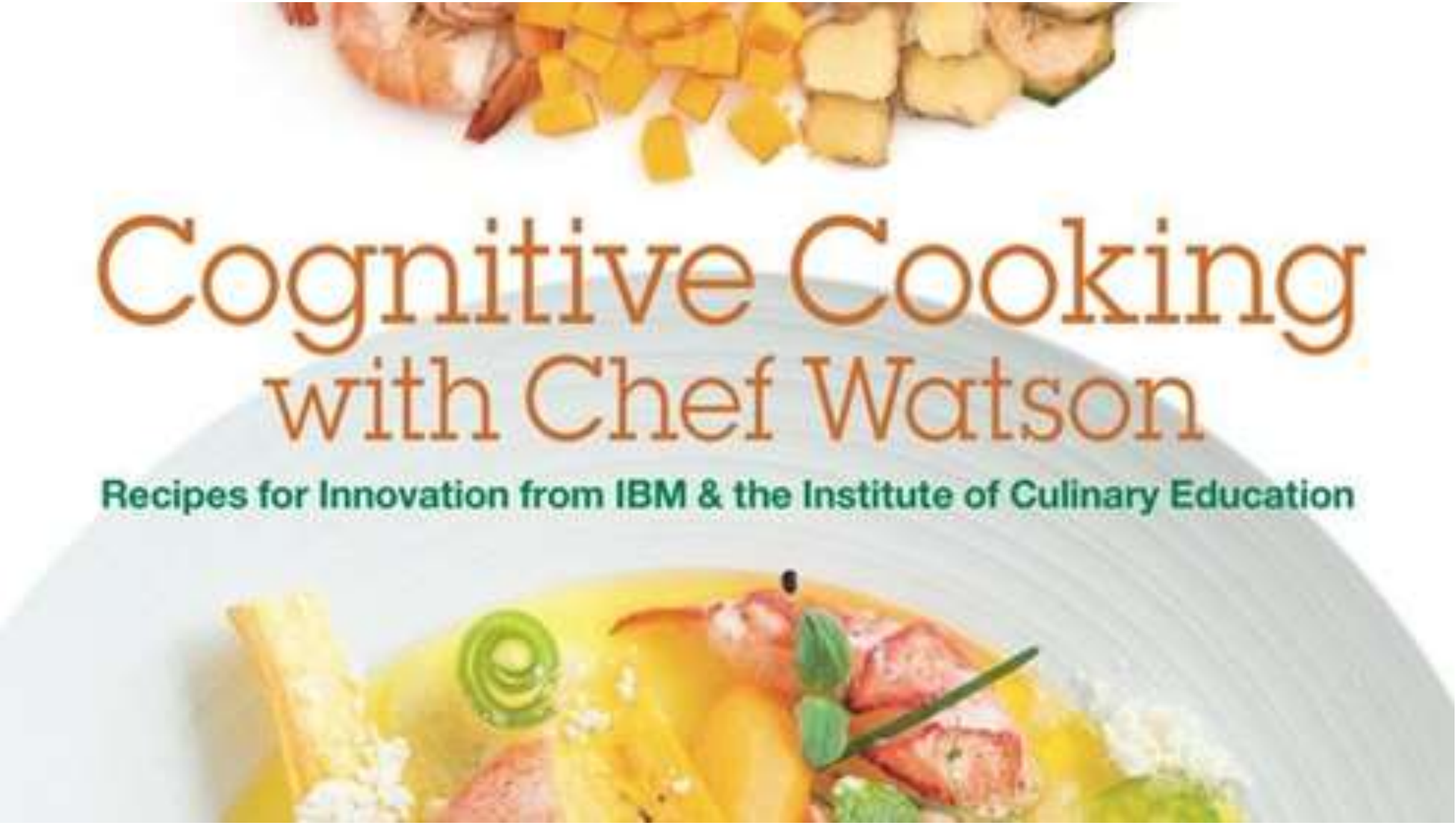
Met computers – beste kok ter wereld



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Een nieuwe opleiding arbeidsmarktbehoefte - dossier - gediplomeerde duurt 6-8 jaar

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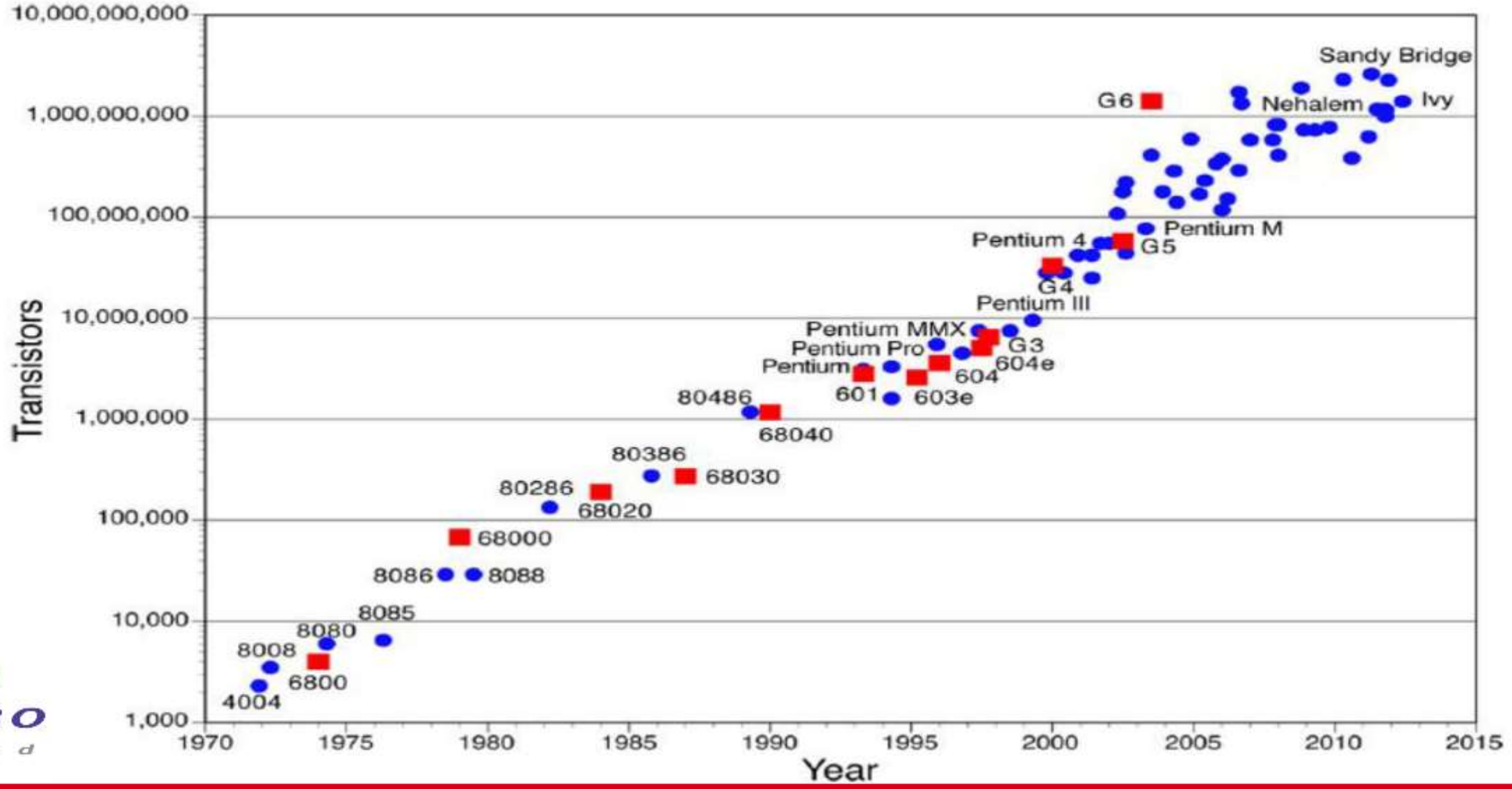
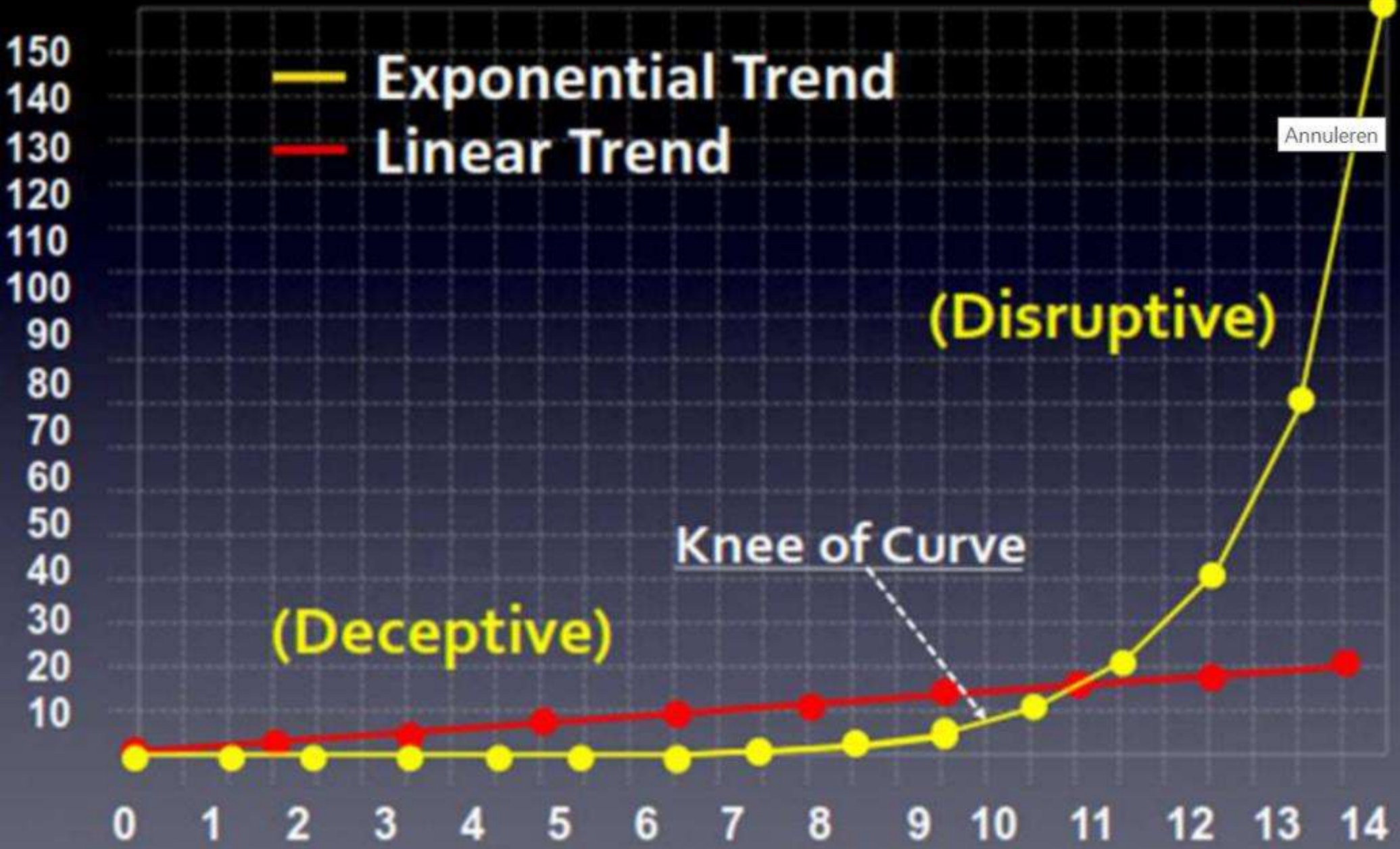
Technologie processors ontwikkelt exponentieel



Linear Vs. Exponential Growth



0	0.01
1	0.02
2	0.04
3	0.08
4	0.16
5	0.32
6	0.64
7	1.28
8	2.56
9	5.12
10	10.2
11	20.5
12	40.9
13	81.9

Experiment Wembley - snelheid ontwikkelingen

- Elke minuut verdubbelen van het aantal druppels
- Na hoeveel tijd is het stadion vol?

Ieder minuut dubbel aantal regendruppels

- Na 6 minuten een vingerhoed vol (64 druppels)
- Een papieren beker is vol na 14 minuten
- Een emmer na 21 minuten
- Na 36 minuten heb je een reddingsvest nodig, want dan staat er 2500 m3 water in het stadion
- Na 46 minuten is het Wembley-stadion gevuld met water

(*Wet van Moore*)

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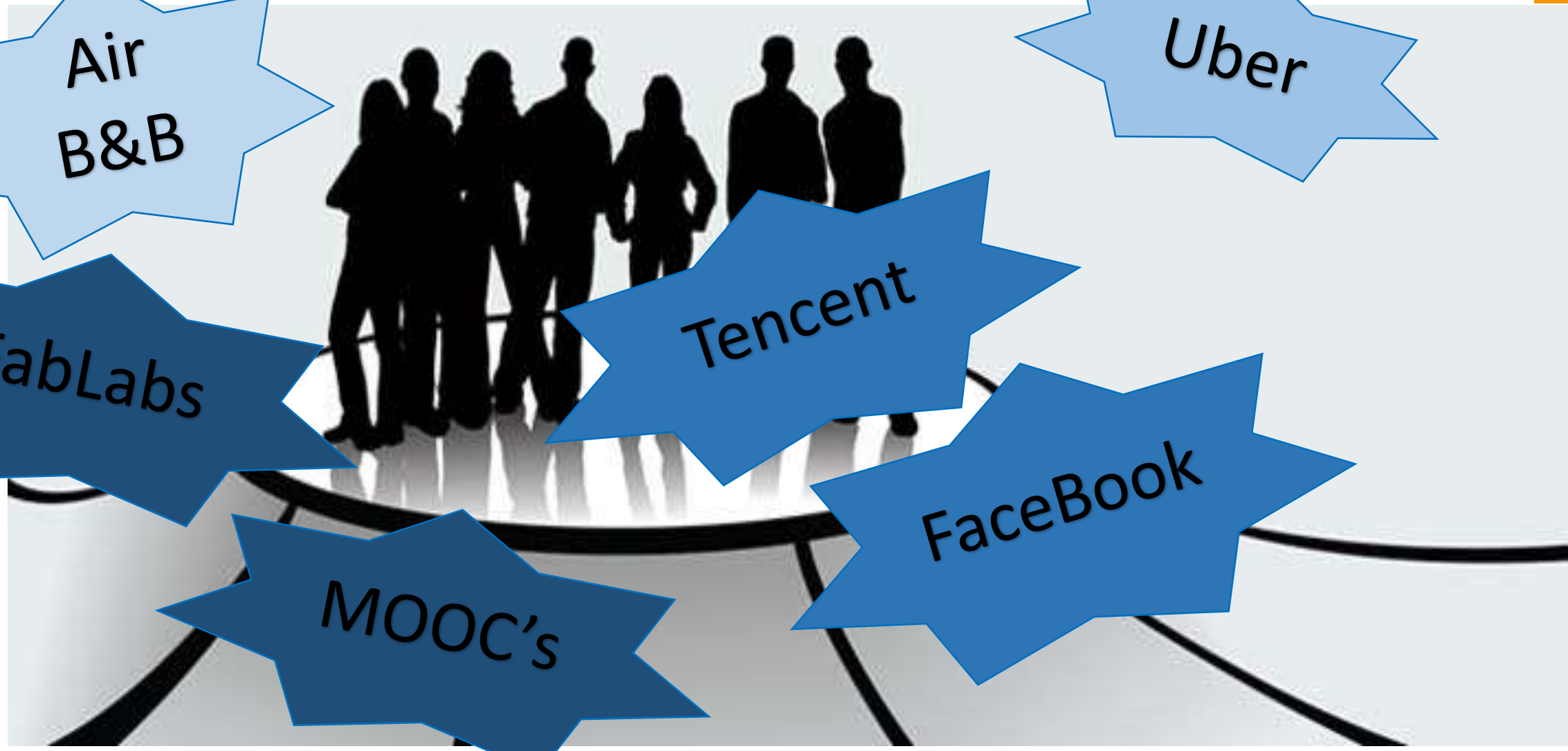
Platform: de ondernemingsvorm van de toekomst



Air B&B

Uber

FabLabs

Tencent

FaceBook

MOOC's

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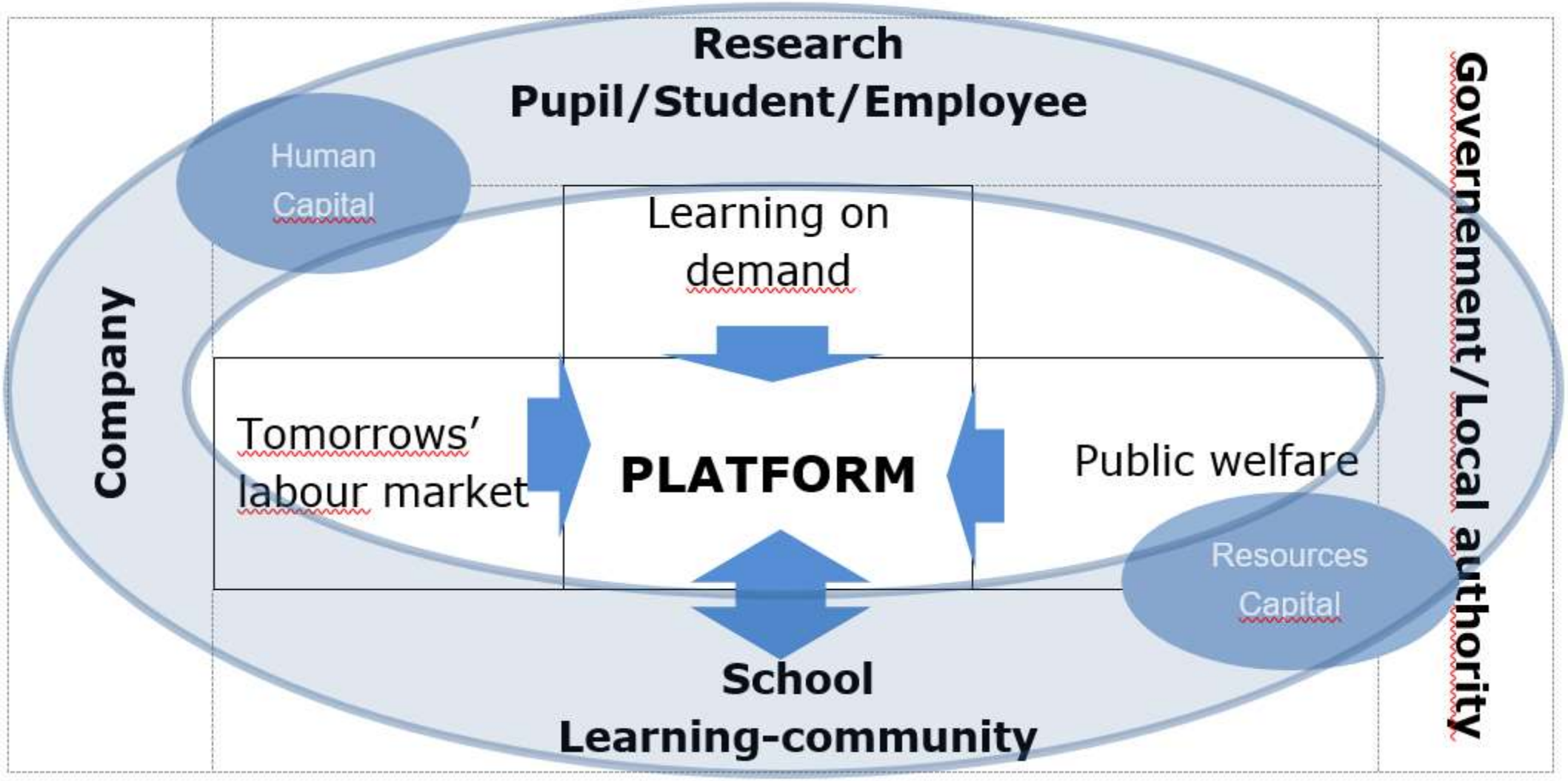
Research
Pupil/Student/Employee
Human Capital
Learning on demand
Company
Tomorrows' labour market
PLATFORM
Public welfare
Resources Capital
Government/Local authority
School
Learning-community

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De arbeidsmarkt van morgen

- Van beroep naar arbeidsmarkt
- Digitale geletterdheid/ Big data
- Productieve consument/ platforms/ netwerken
- Waardepropositie van arbeid
- Denken vanuit eindproduct
- Het werk gaat veranderen (beroepen verdwijnen)
- Context waarin we ons met elkaar bewegen
- Duurzame inzetbaarheid
- Duurzaamheid van diploma’s en certificaten
- Skills is belangrijker (bijv. 21st century) dan kennis

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Goed onderwijs volgens studenten

1. Laat het mijn onderwijs zijn (gepersonifieerd onderwijs)
2. Niet online (dat doen we thuis wel), school is om te leren
3. Geen vakleraar, maar een coach/ inspirator
4. Echte dingen doen
5. Nuttige dingen/vaardigheden leren
6. Hulp om te willen leren

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Rol van de overheid voor onderwijs:

1. *Onderwijs als fundament ('stock')*
   kwalitatief hoogstaand basisonderwijs, voortgezet en beroepsonderwijs
2. *Regelingen die transities versoepelen ('flow')*
   leer-werktrajecten, post-initiële om- en bijscholing; regelingen voor ouders, mantelzorgers (voor, tussen en naschools)
3. *Een vangnet ('buffer')*
   sociale bescherming blijft cruciaal, maar samen met re-integratie op maat

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Uitdaging voor de scholen

- Antwoorden op ontwikkelingen in de wereld
- Antwoorden op vragen uit de omgeving
- Andere doelgroepen
- Andere concurrenten
- Anders gaan denken over opleiden
- Van beroepsgericht naar *“klaar voor arbeidsmarkt”*
- Meer alert zijn op (gebruik van) moderne technieken

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Platforms – netwerken – omgeving gebruiken

There are more brains outside your company than in your company

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1. EINDE AAN ARMOEDE
2. EINDE AAN HONGER
3. GEZONDHEID EN WELZIJN
4. GOED ONDERWIJS
5. VROUWEN EN MANNEN GELIJK
6. SCHOON DRINKWATER EN GOEDE SANITAIRE VOORZIENINGEN
7. DUURZAME EN BETAALBARE ENERGIE
8. FATSOENLIJKE BANEN EN ECONOMISCHE GROEI
9. INNOVATIE EN DUURZAME INFRASTRUCTUUR
10. MINDER ONGELIJKHEID
11. VEILIGE EN DUURZAME STEDEN
12. DUURZAME CONSUMPTIE EN PRODUCTIE
13. KLIMAATVERANDERING AANPAKKEN
14. BESCHERMING VAN ZEEËN EN OCEANEN
15. HERSTEL ECOSYSTEMEN EN BEHOUD BIODIVERSITEIT
16. VREDE, VEILIGHEID EN RECHTVAARDIGHEID
17. PARTNERSCHAPPEN VOOR DE DOELEN

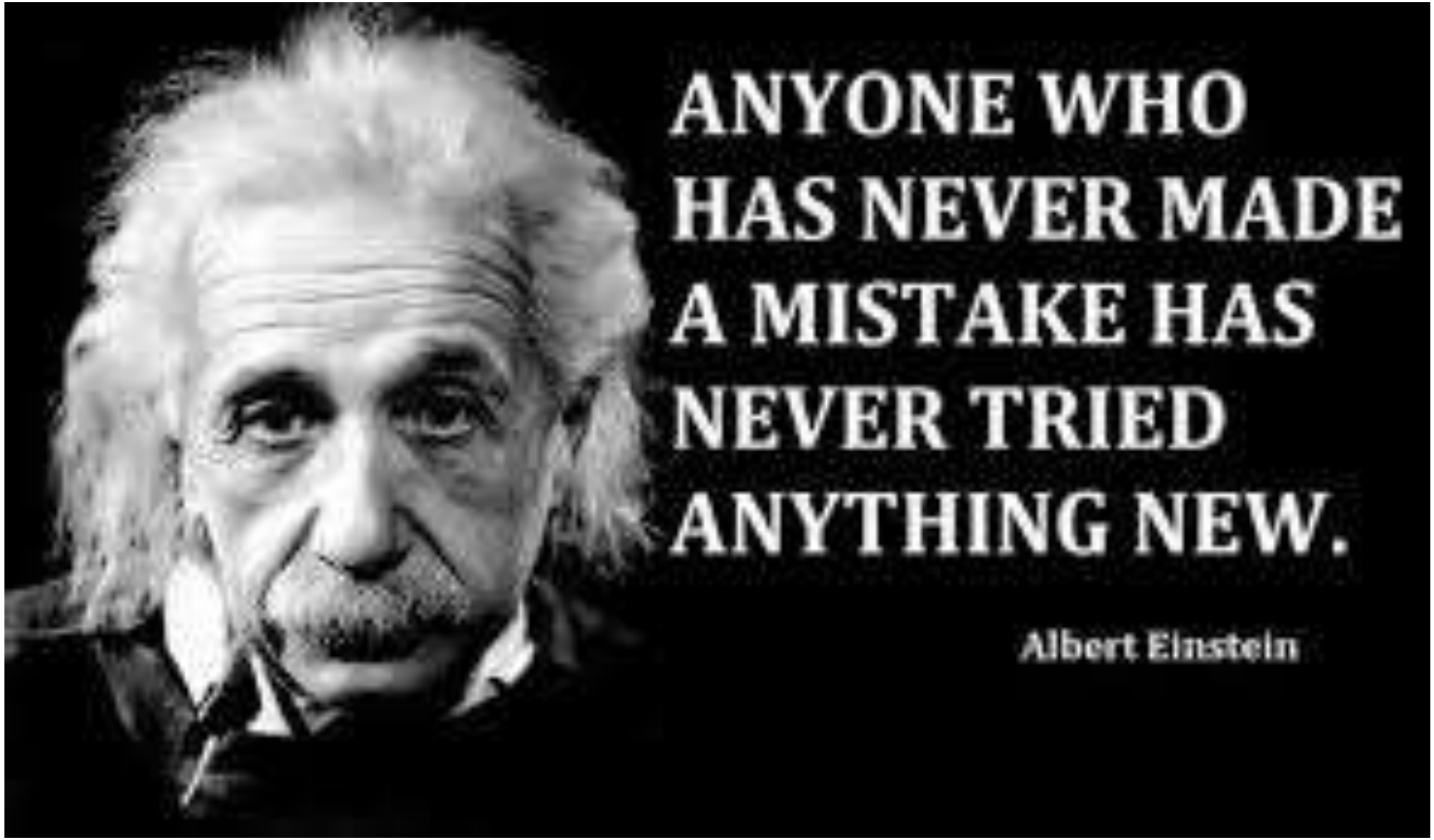
Pitches

- Gonneke
- Rini

- What practices are necessary to ensure VET is in the innovation chain, ensuring its relevance with fast-changing technologies?

- Select one for regional cooperation and one for sectoral cooperation.

Making mistakes is part of the innovation proces



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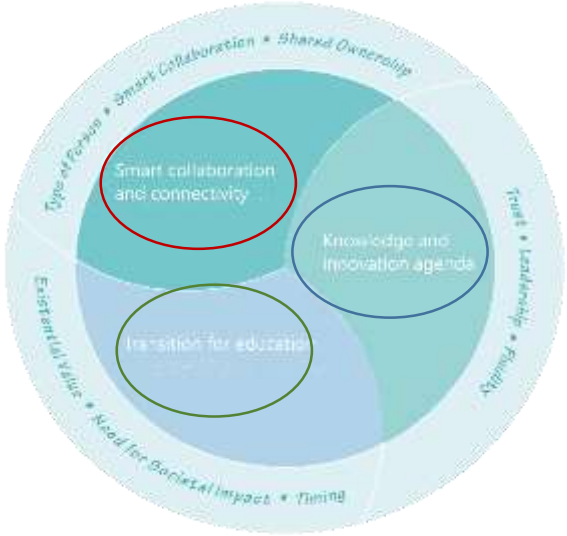
Model for collaboration

- To prepare students for professions that are not yet realised, we need to be teaching them technologies and skills that are in the process of being developed. VET providers need to be part of the innovation chain to bring students of all ages in the environment of the near future: contribute to knowledge and innovation agenda
- In order to keep up with the current changes in the labor market, education must be responsive, flexible and agile. We must welcome changes to the way we are organized: realize a transition in education
- Education institutes must be able to work with other partners from various backgrounds. Work together to bring students of all ages in a context that prepares them for the work of tomorrow: Smart collaboration and connectivity (ecosystem)
- Dutch VET schools have invested strongly in regional and sectoral cooperation aimed at excellence and innovation. This approach is the basis of the model of ‘Centers of Vocational Innovation’.



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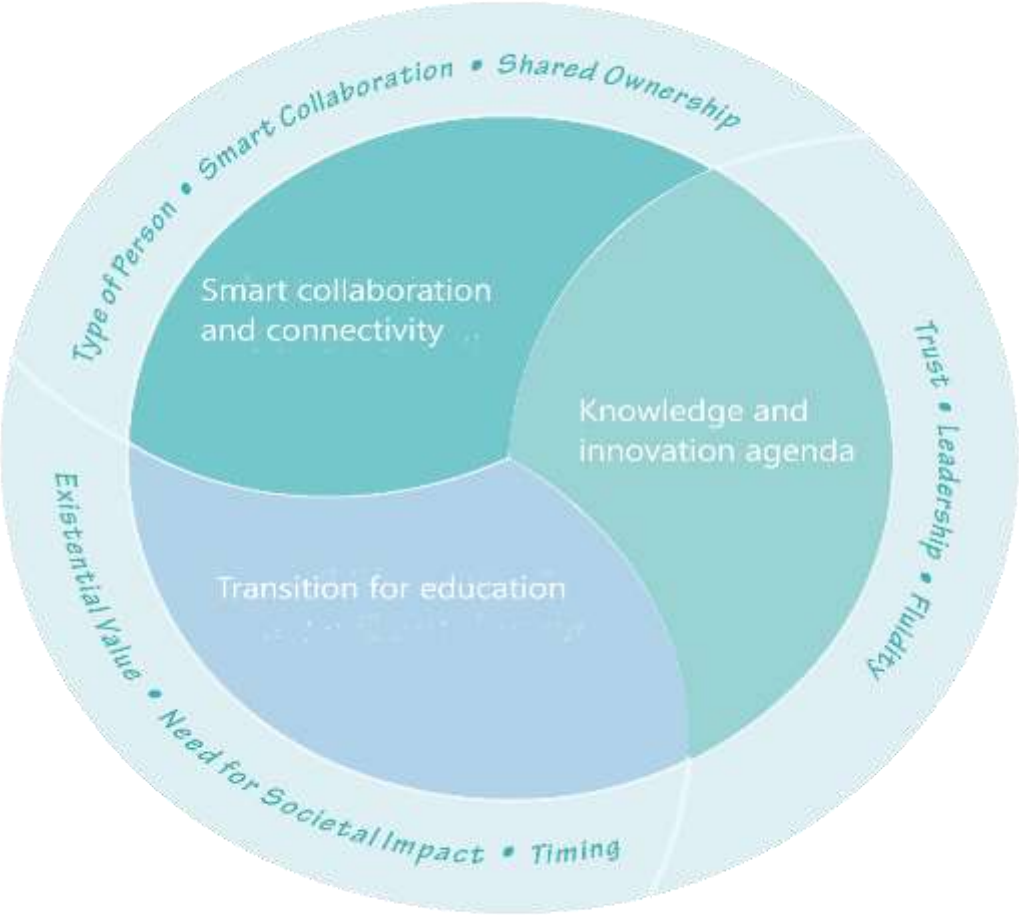
Model for collaboration



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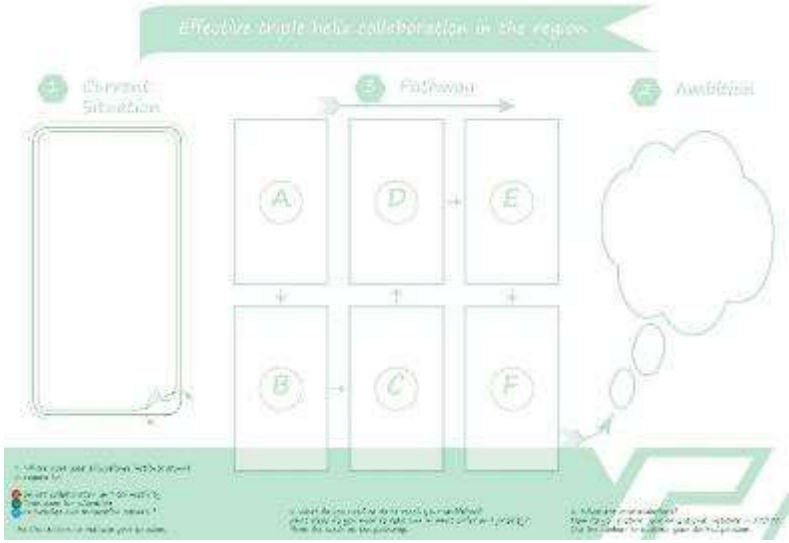
VET ambitions in your region

- The Duth model for collaboration is one that you could use to discuss your current state of affairs and your own ambitions
- We use an interactive approach for form your thoughts
- Ask yourself the following questions

1. Where does my education institute stand in regard to smart collaboration (red), transition education (green) and knowledge and innovation agenda (blue)
2. What are my ambitions irt these three aspects?
3. What stept do I need to take?



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Trust
groenpact

People and roles
groenpact

Leadership
groenpact

Cooperation strategy
groenpact

Connectivity and alignment
groenpact

Collaboration structure
groenpact

Boundary crossing
groenpact

Strategic choices
groenpact

Curriculum development
groenpact

Infrastructure
groenpact

Professionalisation and competences
groenpact

Co-creation
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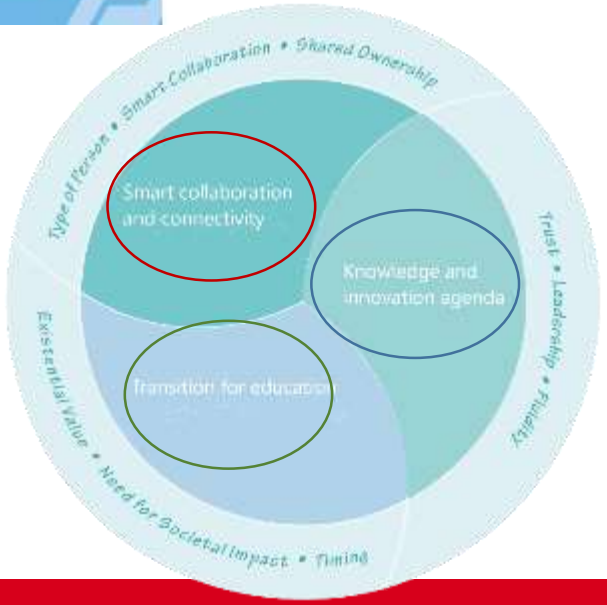
Innovating
groenpact

Learning and developing
groenpact

Value creation
groenpact


Smart collaboration and connectivity
Knowledge and innovation agenda
Transition for education
Type of tension • Smart Collaboration • Shared Ownership
Trust • Leadership • Quality
Existential Value • Need for Societal Impact • Timing

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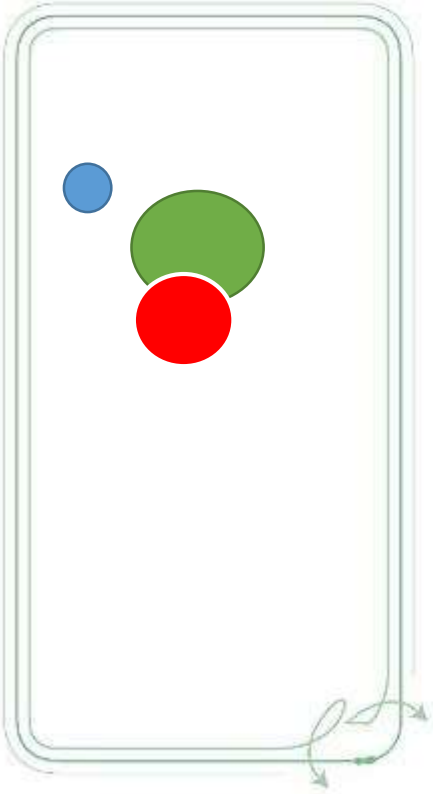
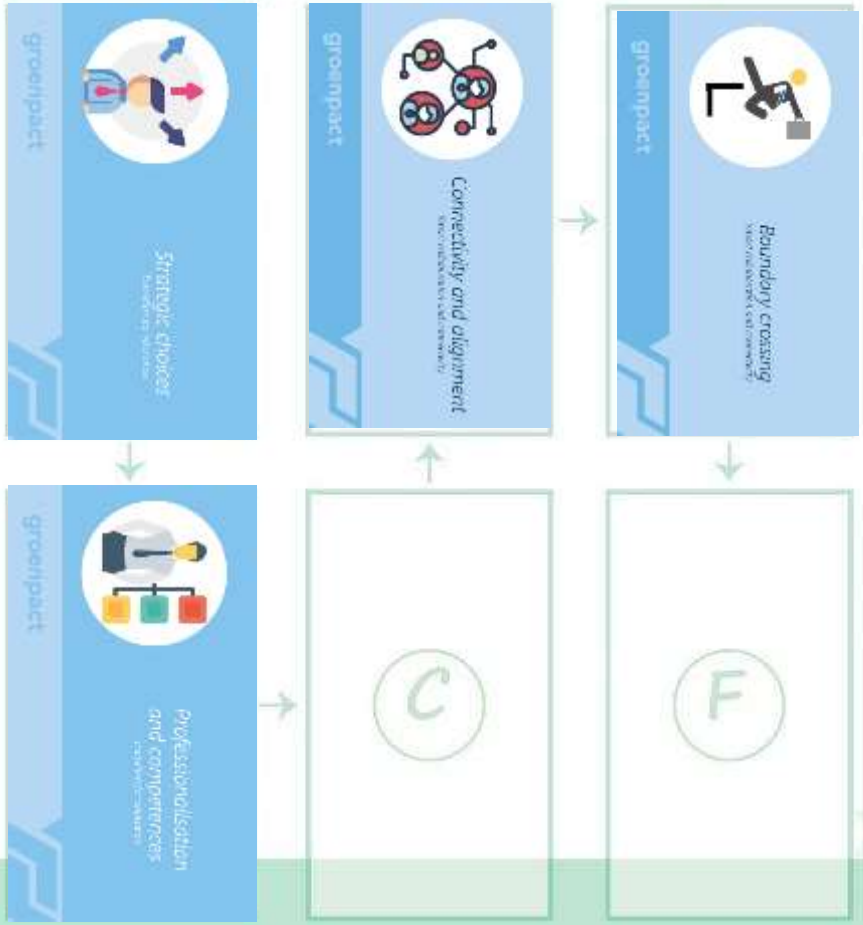
Effective triple helix collaboration in the region

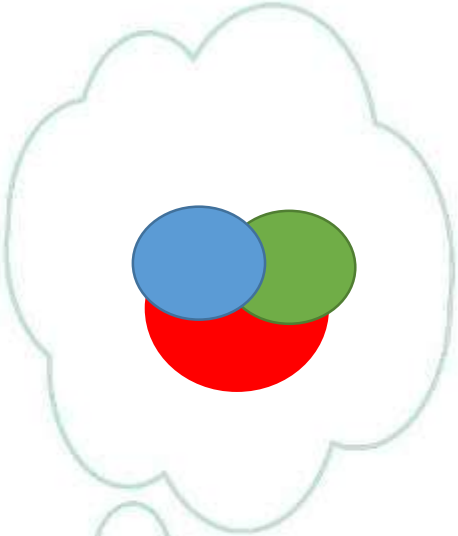
1 Current Situation



3 Pathway



2 Ambition



1. Where does your educational institute stands in regard to:

a. Smart collaboration and connectivity
b. Transition for education
c. Knowledge and innovation agenda ?

Use the stickers to indicate your position.

3. What do you need to do to reach your ambitions?
What steps do you need to take and in what order and priority?
Place the cards on the pathway.

2. What are your ambitions?
How do you picture your educational institute in 2025?
Use the stickers to indicate your desired position.

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