

Do we still need office buildings?

*Four explorative scenarios for Dutch
offices in 2050*



Introduction

- What is *hybrid working*?
- Employers and employees have not yet found a *balance* in hybrid working
- Results in *hidden vacancy*
- *Ineffective* office portfolio

Research objective

Insights into in how key developments could affect the office use and therefore the office demand

Research questions

*How can societal trends influence the way people work
and therefor the office demand?*

- What trends can affect the office use?
- What are the two key uncertainties that can impact the office use?
- How can the office be used as a result of the key uncertainties?

Research method

Scenarios

What are scenarios?

- "an internally consistent view of what the future might turn out to." (Porter, 1985)
- "rich and detailed representation of assumed world images." (Kwakkel & Veenman, 2013)

Types of scenarios

- Normative scenarios
- Explorative scenarios

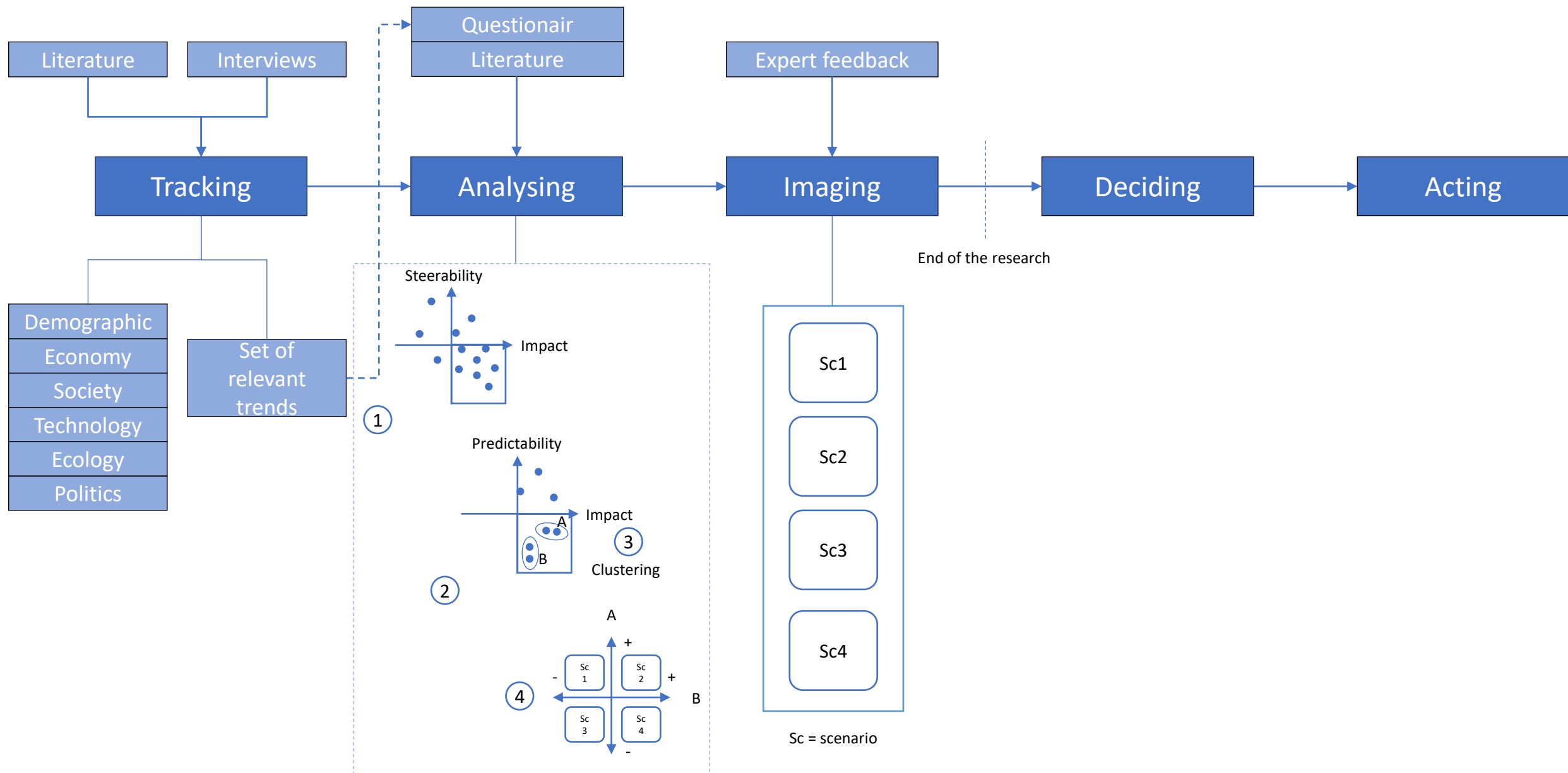
Research method

Target group: Real Estate Managers

Goal: identify developments that could affect the office use and therefore the office demand

Research output: four explorative scenarios

TAIDA model: structure for developing scenarios



Tracking | Literature

Goal: mapping the context

Literature study

Output: trends structured through DESTEP

Tracking | Interviews

Goal: first selection of relevant trends for the scenarios

Tracking | Interviews

Actor sampling

Tracking | Interviews

Actor sampling

1. The participant must have knowledge of **how work may evolve.**
2. The participant must have knowledge of **human behavior.**
3. The participant must have knowledge of **how organizations function.**
4. The participant must have knowledge of the **relationship between the way of working and the physical work environment.**
5. The participant must have knowledge of **how future developments may unfold.**

Tracking | Interviews

Actor sampling

Participants

Tracking | Interviews

Actor sampling

Participants

Expertise	Selection criteria
Researcher Behaviour Science and Psychology	2, 3
Researcher New ways of working	1
Researcher Spatial planning	5
Corporate real estate	3, 4
HR director	2, 3
Researcher Spatial economy	5
Researcher Organizational Behaviour	2, 3
Prof Behaviour Science and Psychology	2
Researcher Spatial planning	5

Tracking | Interviews

Actor sampling

Participants

Results

Tracking | Interviews

Actor sampling

Participants

Results

Trends	
Technological innovation	Digitalization
Health & well-being	Diversity
Individualization	Inequality
Urbanization	Globalization
Sustainability	Circular economy
Mobility	

Analysing | Questionnaire

Goal: limited amount of the most relevant trends for the scenarios

Techniques: questionnaire, literature

Output: two key uncertainties

Analysing | Questionnaire

Trends assessed on 3 aspects

- Steerability
- Predictability
- Impact

Analysing | Questionnaire

Participants

Analysing | Questionnaire

Participants

Criteria

- Organizational perspective
- Different organizations
 - 5 different organizations

Expertise
Corporate real estate manager
Portfolio manager
Business Analyst
Corporate Real Estate Analyst
Office transaction expert
Workplace expert
Architect
Architect
Branch manager
Department manager
Department manager
Department coordinator

Analysing | Questionnaire

Participants

Process

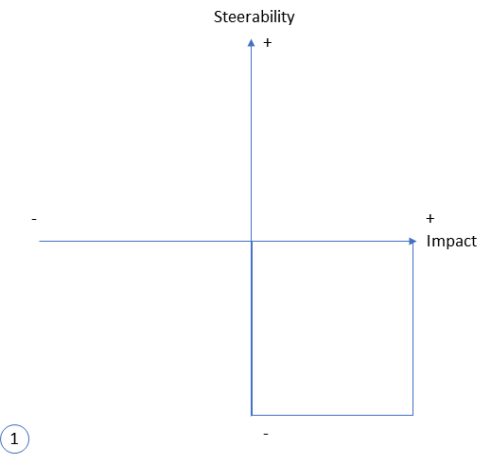
Analysing | Questionnaire

Participants

Process

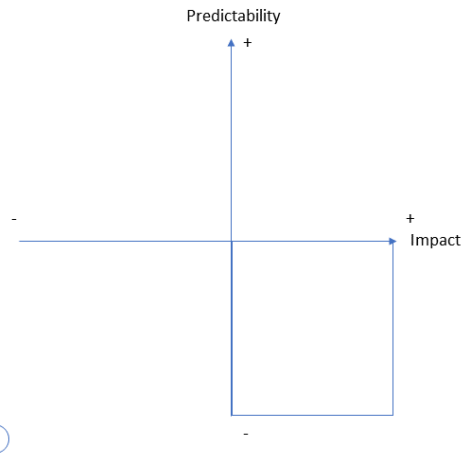
Step 1

- 1
- 2
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- 8
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- 11



Step 2

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Analysing | Questionnaire

Participants

Process

Data processing

Analysing | Questionnaire

Data processing

		Participants																											
		A		B		C		D		E		F		G		H		I		J		K		L		Weighted average			
Trend		X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
1	Digitalization	3,27	2,05	2,8	-1,83	4,75	-4,84	4,23	-1,66	3,52	-1,61	3,72	1,96	3,72	1,96	3,23	4,12	3,52	-3,5	2,64	-0,61	4,1	-2,3	3,67	4,79	3,60	-0,12		
2	Health and well-being	2,89	2,66	-2,97	-0,57	4,52	2,83	1,03	-4,21	1,8	-3,3	1,15	1,24	1,15	1,24	3,95	-0,65	-0,39	2,52	2,67	-3,65	3,23	-2,77	1,81	1,02	1,74	-0,30		
3	(Ethnical) diversity	-1,63	3,01	-4,67	-0,58	4,52	5,5	1,42	0,57	-0,34	-2,17	0	0,46	0	0,46	-3,9	0,9	-1,03	4,12	3,41	1,04	0,21	-1,23	2,53	1,99	0,04	1,17		
4	Individualization	3,82	2,55	-4,66	-1,69	0	0	0,41	-4,5	3,3	-3,28	0,53	-4,07	0,53	-4,07	-2,62	0,72	-0,72	-0,72	3,2	-1,85	2,01	-3,96	2,31	-1,14	0,68	-1,83		
5	Globalization	0	1,92	-2,91	-1,69	0	-2,51	1,57	-1,02	2,46	-3,09	1,59	-3,64	1,59	-3,64	-0,75	-0,8	3,09	-1,91	1,3	-3,49	0,26	-1,76	3,11	-2,21	0,94	-1,99		
6	Technological domination	2,03	1,18	1,89	-1,14	4,55	-2,49	0,95	0,76	0,9	-2,36	3,59	0,53	3,59	0,53	2,52	1,88	2,51	2,8	3,26	-2,38	2,6	-1,72	1,92	-2,41	2,53	-0,40		
7	Sustainability	3,78	3,87	1,4	-0,57	2,29	0	2,81	0,94	1,26	0,56	2,72	1,92	2,72	1,92	2,15	2,93	3,66	4,64	1,01	-0,27	0,09	0,44	0,64	2,18	2,04	1,55		
8	Urbanization	0,02	0,46	1,4	-1,58	2,36	-4,82	-0,45	1,41	-1,21	0,59	-0,73	1,35	-0,73	1,35	0,7	-1,7	-2,19	-2,64	-1,53	-1,88	-2,06	-1,06	1,06	-1,5	-0,28	-0,84		
9	Mobility	1,47	3,63	2,91	-0,56	3,39	5,5	0,57	1,43	-0,04	0,49	0,51	2,62	0,51	2,62	0,58	-0,68	-1,23	1,33	2,54	0,56	2,75	2,45	-1,06	-0,25	1,08	1,60		
10	Income inequality	-3,28	3	-4,77	-3,07	-0,65	2,81	-1,75	-0,11	-0,39	-1,63	0,35	-3,03	0,35	-3,03	0,62	0,49	-3,7	0,75	-2,11	-2,98	-0,95	0,79	-4,63	-1,34	-1,74	-0,61		
11	Circular economy	-1,18	1,88	0,52	-2,89	-0,87	0	-4,28	-1,11	-2,82	-0,59	0,23	-0,37	0,23	-0,37	2,25	0,53	-2,96	2,94	-1,37	-1,26	-3,78	0,72	-3,93	-2,68	-1,50	-0,27		

Analysing | Questionnaire

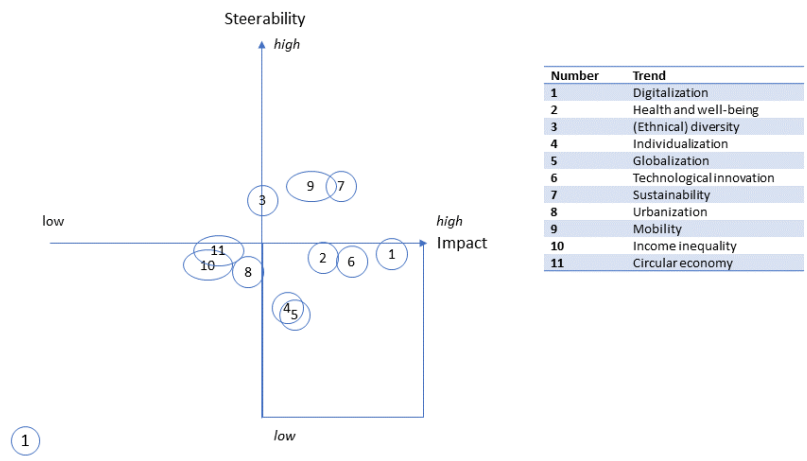
Data processing

		Participants																											
		A		B		C		D		E		F		G		H		I		J		K		L		Weighted average			
Trend		X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
1	Digitalization	3,27	2,05	2,8	-1,83	4,75	-4,84	4,23	-1,66	3,52	-1,61	3,72	1,96	3,72	1,96	3,23	4,12	3,52	-3,5	2,64	-0,61	4,1	-2,3	3,67	4,79	3,60	-0,12		
2	Health and well-being	2,89	2,66	-2,97	-0,57	4,52	2,83	1,03	-4,21	1,8	-3,3	1,15	1,24	1,15	1,24	3,95	-0,65	-0,39	2,52	2,67	-3,65	3,23	-2,77	1,81	1,02	1,74	-0,30		
3	(Ethnical) diversity	-1,63	3,01	-4,67	-0,58	4,52	5,5	1,42	0,57	-0,34	-2,17	0	0,46	0	0,46	-3,9	0,9	-1,03	4,12	3,41	1,04	0,21	-1,23	2,53	1,99	0,04	1,17		
4	Individualization	3,82	2,55	-4,66	-1,69	0	0	0,41	-4,5	3,3	-3,28	0,53	-4,07	0,53	-4,07	-2,62	0,72	-0,72	-0,72	3,2	-1,85	2,01	-3,96	2,31	-1,14	0,68	-1,83		
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6	Technological domination	2,03	1,18	1,89	-1,14	4,55	-2,49	0,95	0,76	0,9	-2,36	3,59	0,53	3,59	0,53	2,52	1,88	2,51	2,8	3,26	-2,38	2,6	-1,72	1,92	-2,41	2,53	-0,40		
7	Sustainability	3,78	3,87	1,4	-0,57	2,29	0	2,81	0,94	1,26	0,56	2,72	1,92	2,72	1,92	2,15	2,93	3,66	4,64	1,01	-0,27	0,09	0,44	0,64	2,18	2,04	1,55		
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Analysing | Questionnaire

Data processing

Step 1 → Conclusion



Analysing | Questionnaire

Data processing

		Participants																									
		A		B		C		D		E		F		G		H		I		J		K		L		Weighted average	
Trend		X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
1	Digitalization			0,66	1,92	4,67	-4,84	4,23	-1,66	3,52	-1,61							3,65	-0,79	2,64	-0,61	4,1	-2,3			3,35	-1,41
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4	Individualization							0,41	-4,5	3,3	-3,19	0,53	-0,54	0,53	-0,54					3,2	-1,85	2,01	-3,96	1,38	-0,7	1,62	-2,18
5	Globalization							1,57	1,93	2,46	-0,15	1,59	1,32	1,59	1,32			3,39	0,73	1,3	-0,54	0,26	1,18	2,58	-1,83	1,84	0,50
6	Technological domination			3,86	-2,94	4,03	-4,84			0,9	-1,51									3,26	-2,38	2,6	-1,72	3,95	-1,21	3,10	-2,43

Analysing | Questionnaire

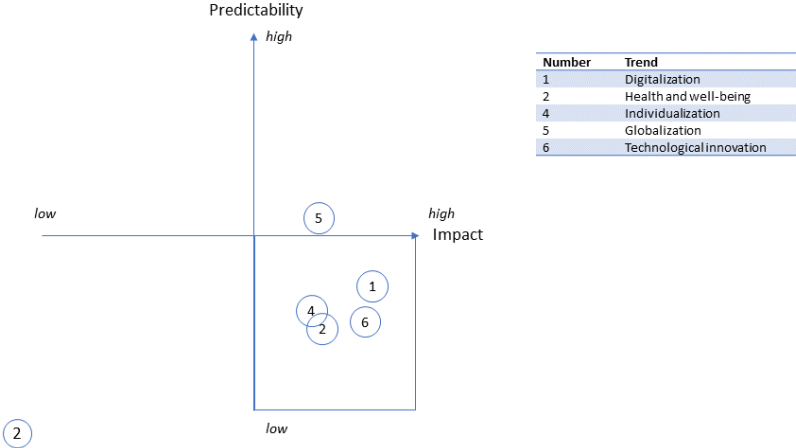
Data processing

		Participants																									
		A		B		C		D		E		F		G		H		I		J		K		L		Weighted average	
Trend		X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
1	Digitalization			0,66	1,92	4,67	-4,84	4,23	-1,66	3,52	-1,61							3,65	-0,79	2,64	-0,61	4,1	-2,3			3,35	-1,41
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Analysing | Questionnaire

Data processing

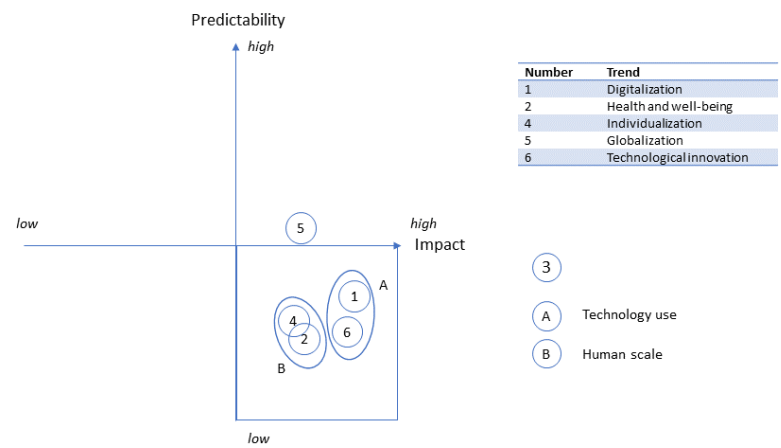
Step 2: Conclusion



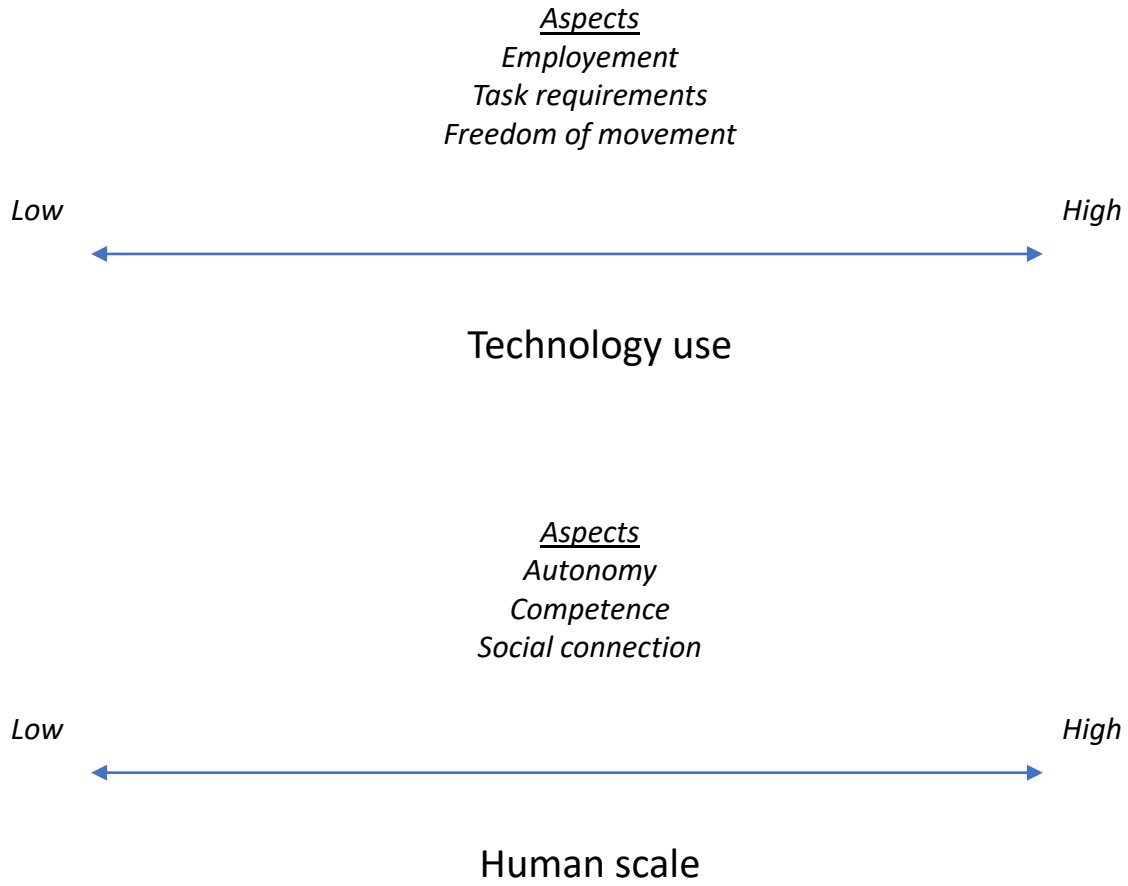
Analysing | Questionnaire

Data processing

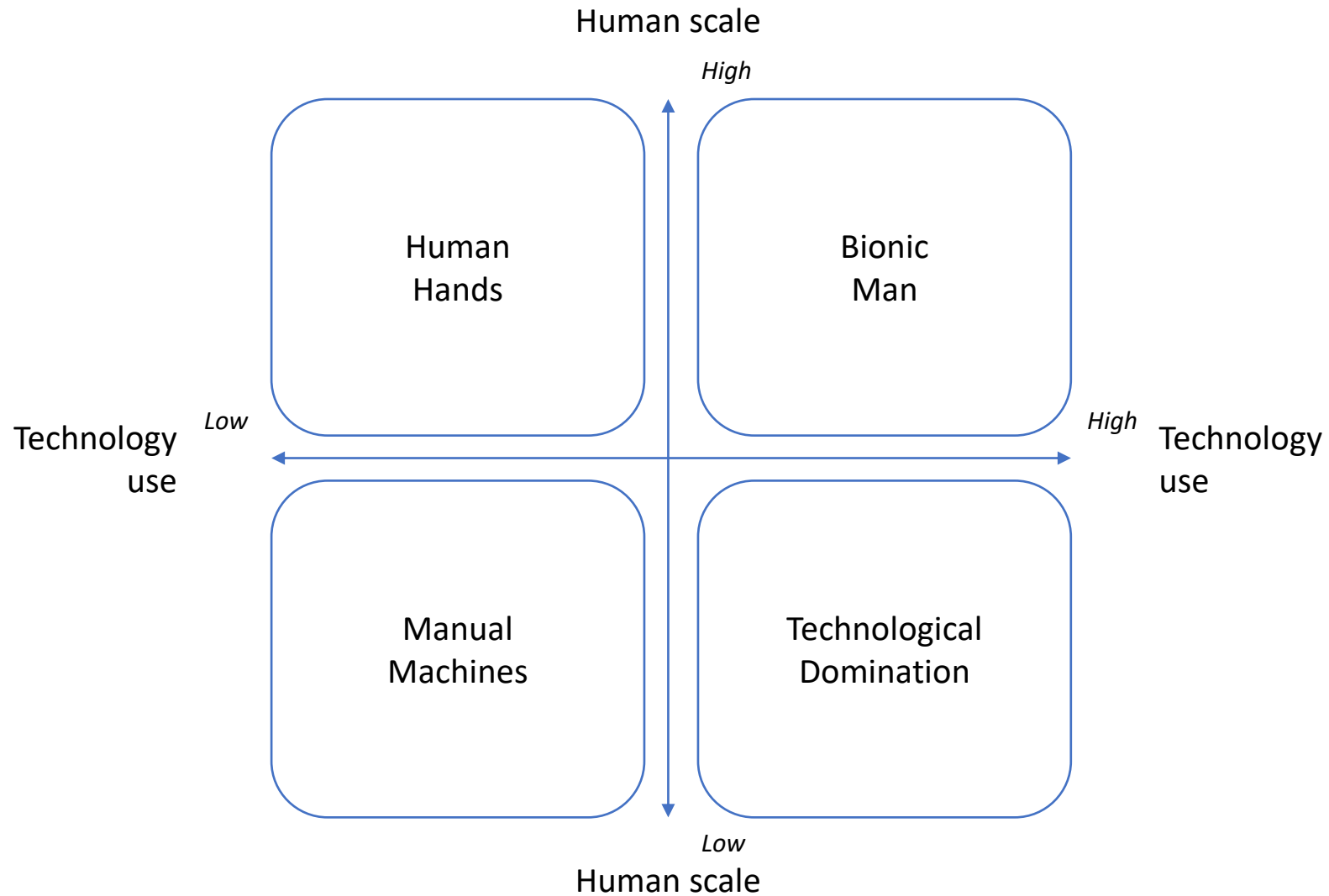
Step 3: Clusters



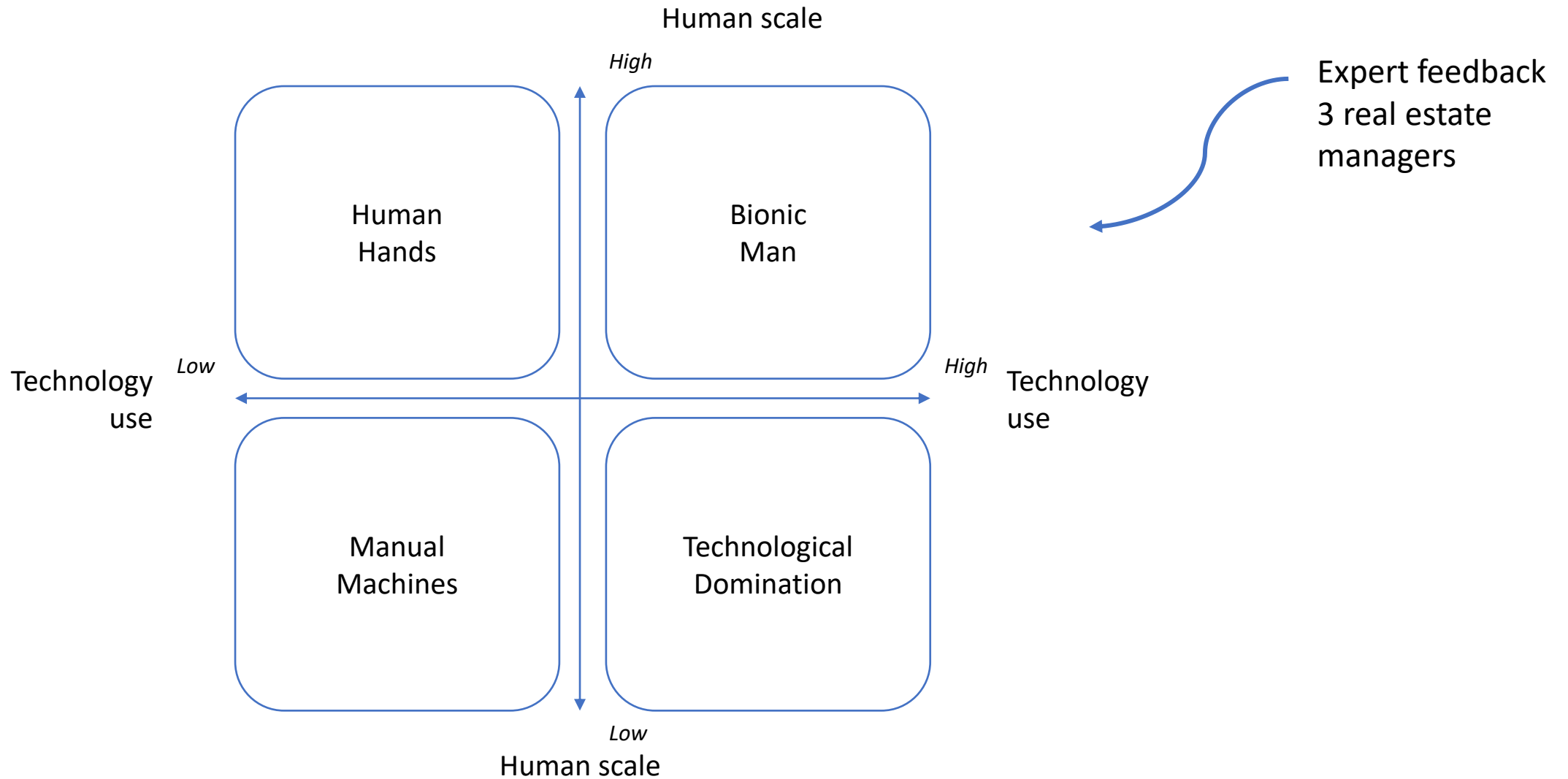
Analysing | Literature



Imaging | Four scenarios



Imaging | Expert feedback



Human Hands

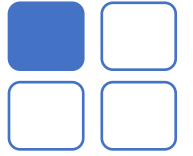
Characteristics of the scenario

- Human aspects are dominant
- Technology is applied to make work easier
- Interactions are primarily physical
- Office service as the place to perform work and to socialize

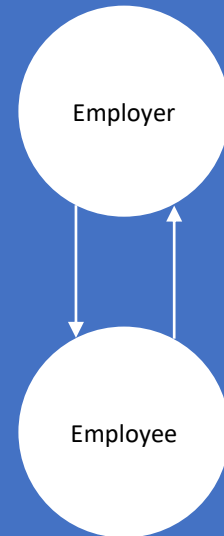
Imagine...



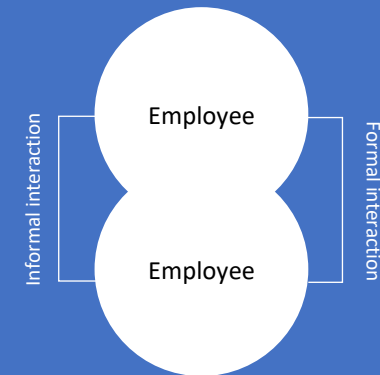
Way of Working



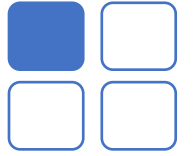
Organizational structure



Collaboration

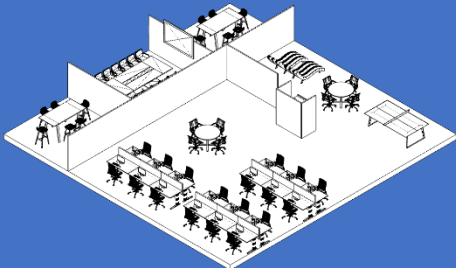


Office Characteristics



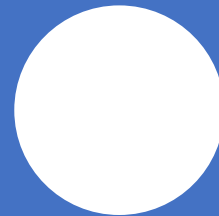
Quality of space

- Mix of formal and informal spaces

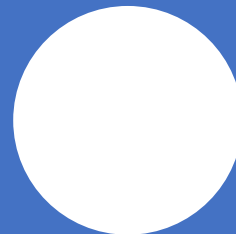


Quantity of space

- Increase in office demand



2019



2050

- In urban areas



Bionic Man

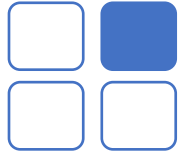
Characteristics of the scenario

- Human and technology are collaborating
- Boost to efficiency
- Professional interaction are primarily online while social interactions are primarily physical
- Office is the place to bolster organizational cohesion

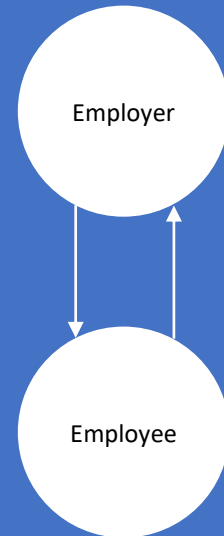
Imagine...



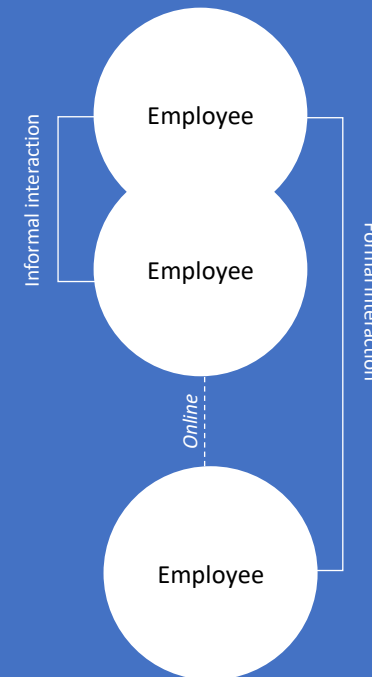
Way of Working



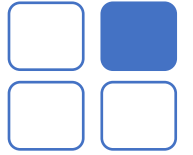
Organizational structure



Collaboration

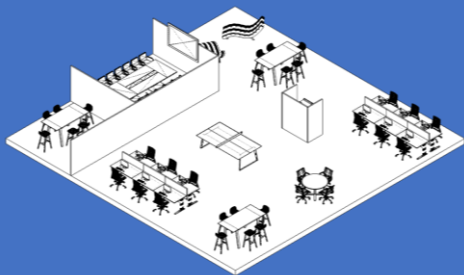


Office Characteristics



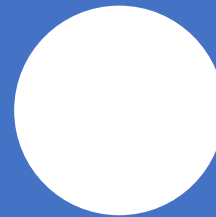
Quality of space

- Mostly individual spaces

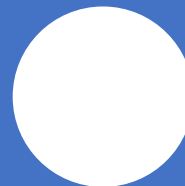


Quantity of space

- Decrease in office demand



2019



2050

Office location

- All over the Netherlands



Manual Machines

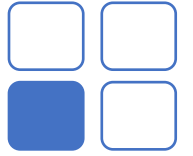
Characteristics of the scenario

- Organizations aiming for profit maximalization
- Work and workplace are designed around functionality
- Professional interaction physical, social interaction outside the organization
- Office services only as a place to conduct work

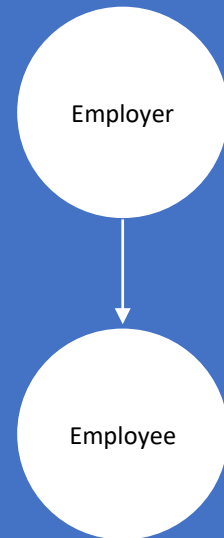
Imagine...



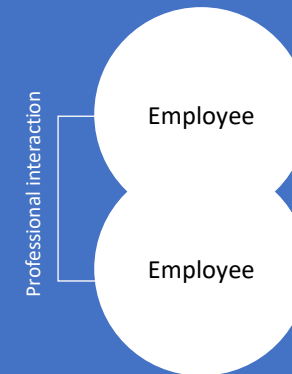
Way of Working



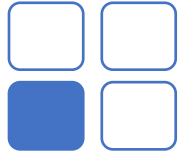
Organizational structure



Collaboration

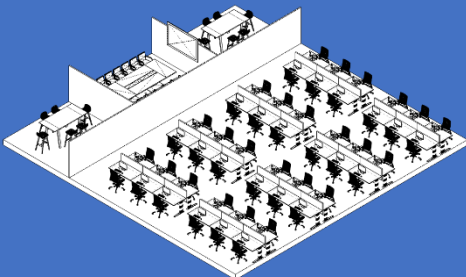


Office Characteristics



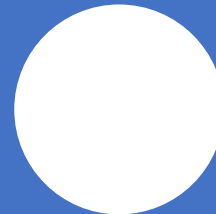
Quality of space

- Only work orientated

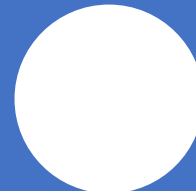


Quantity of space

- Decrease in office demand



2019



2050

Office location

- At the border of urban areas



Technological Domination

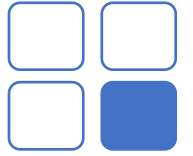
Characteristics of the scenario

- Technology is thriving efficiency
- Humans are replaced by technology
- Virtual domain is dominant over physical domain
- Interactions are all online
- Office is only used if necessary

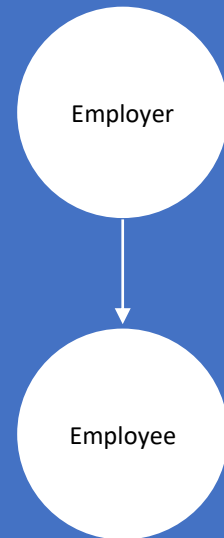
Imagine...



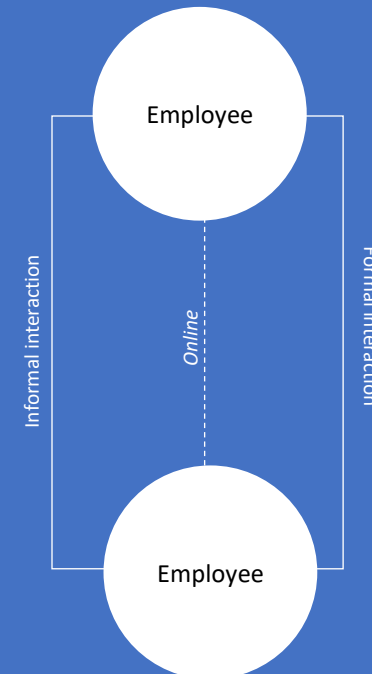
Way of Working



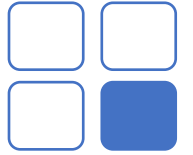
Organizational structure



Collaboration

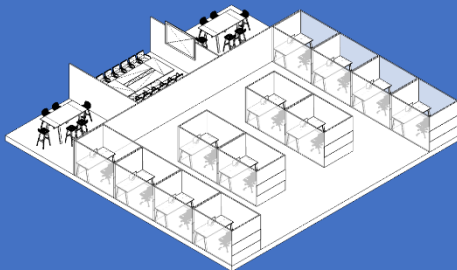


Office Characteristics



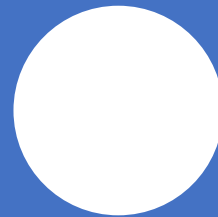
Quality of space

- Mostly individual spaces



Quantity of space

- Decrease in office demand



2019



2050

Office location

- All over the Netherlands







Reflection on scenarios

- Consistency → *All scenarios the building characteristics are a result of the way of working*
- Contrast → *In all scenarios there is a different interplay between human and technique*
- Comparability → *All scenarios are built from the same key uncertainties*
- Elaboration → *Demand differs in the scenarios as a result of the way of working*
- Recruiting power → *All scenarios discuss quality and quantity of space*


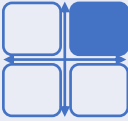
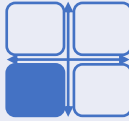

Conclusion

How can societal trends influence the way people work and therefor the office demand?

		Human Hands	Bionic Man	Manual Machines	Technological Domination
Human scale ↔					
Technological use ↑↓					
Way of Working	Organizational structure	Decentralized	Decentralized	Hierarchical	Hierarchical
	Employees collaboration	All interactions physically	Social: physical Professional: online	Social: none Professional: physical	All interactions online
	Work location	One place	Multiple places	One place	Multiple places
Office characteristics	Quality of space	Meeting rooms Individual desk Silence areas Social areas	Meeting rooms Social areas	Meeting rooms Individual desk Silence areas	Individual rooms
	Quantity of space	Increase	Decrease	Decrease	Decrease
	Office location	Urban areas with good accessibility	Urban area with good accessibility	Good accessible but at the border of cities	Offices are spread all over the Netherlands

Conclusion

Do we still need office buildings?

Human Hands	Bionic Man	Manual Machines	Technological Domination
			
Increase	Decrease	Decrease	Decrease

Limitations

Number of trends

Questionnaire participants

Elaboration of the scenarios

Recommmondations

Different perspectives

Normative scenarios

The effect of changes in office demand on other sectors

Developing and using scenarios

Thank you

