



Dutch State Treasury Agency
Ministry of Finance

Outlook 2024

New Horizons

The Hague,
15 December 2023

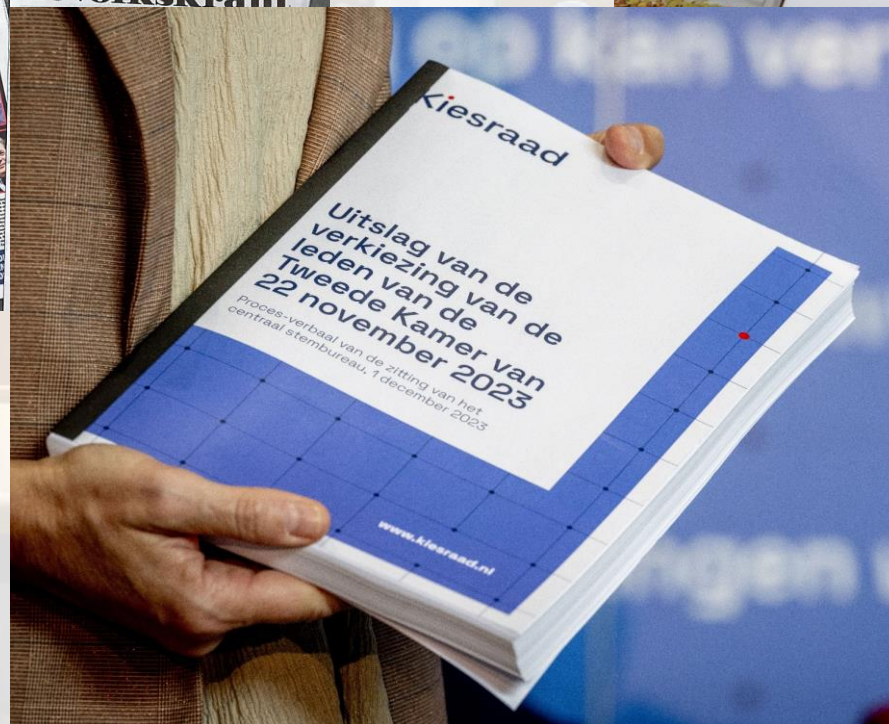


Sigrid Kaag

Minister of Finance











Green 20-year DSL 2044





Advisory Board



Rob Becker



Renate Eringa



Els de Groot



Mimoent Haddouti



Roderick Munster

Advisory Board



Dutch State Treasury Agency
Ministry of Finance

Today's programme

Introduction

Sigrid Kaag, Minister of Finance, and Saskia van Dun, Agent

Looking back on 2023 and the Economic, Budgetary and Climate Outlook

Karen van der Wiel, Deputy Agent

Looking ahead to 2024

Saskia van Dun, Agent

Keynote speech

Mathijs Bouman

Primary Dealer Awards 2023

Justin Heydenrijk, Head of Cash Management, Issuance and Trading

Closing remarks

Christiaan Rebergen, Treasurer-General



Looking back on 2023





Funding need initially (Q1)

€ 74.9 billion





Final funding need (Q4)

€ 99.7 billion





Capital market

€50 billion

Money market

€50 billion





Capital market

€46 billion

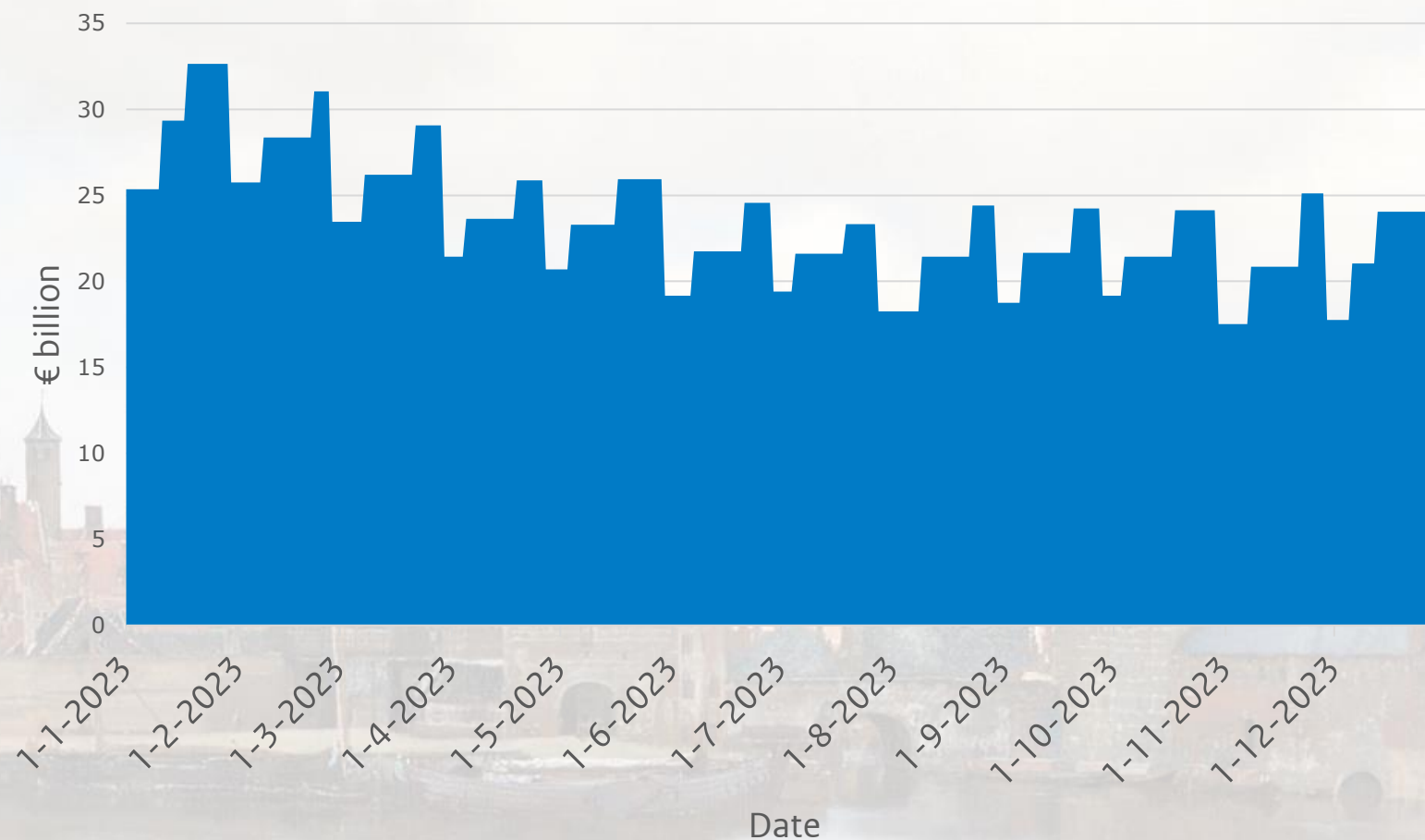
Money market

€25 billion





Money market: outstanding Dutch Treasury Certificates





Transparency

Consistency

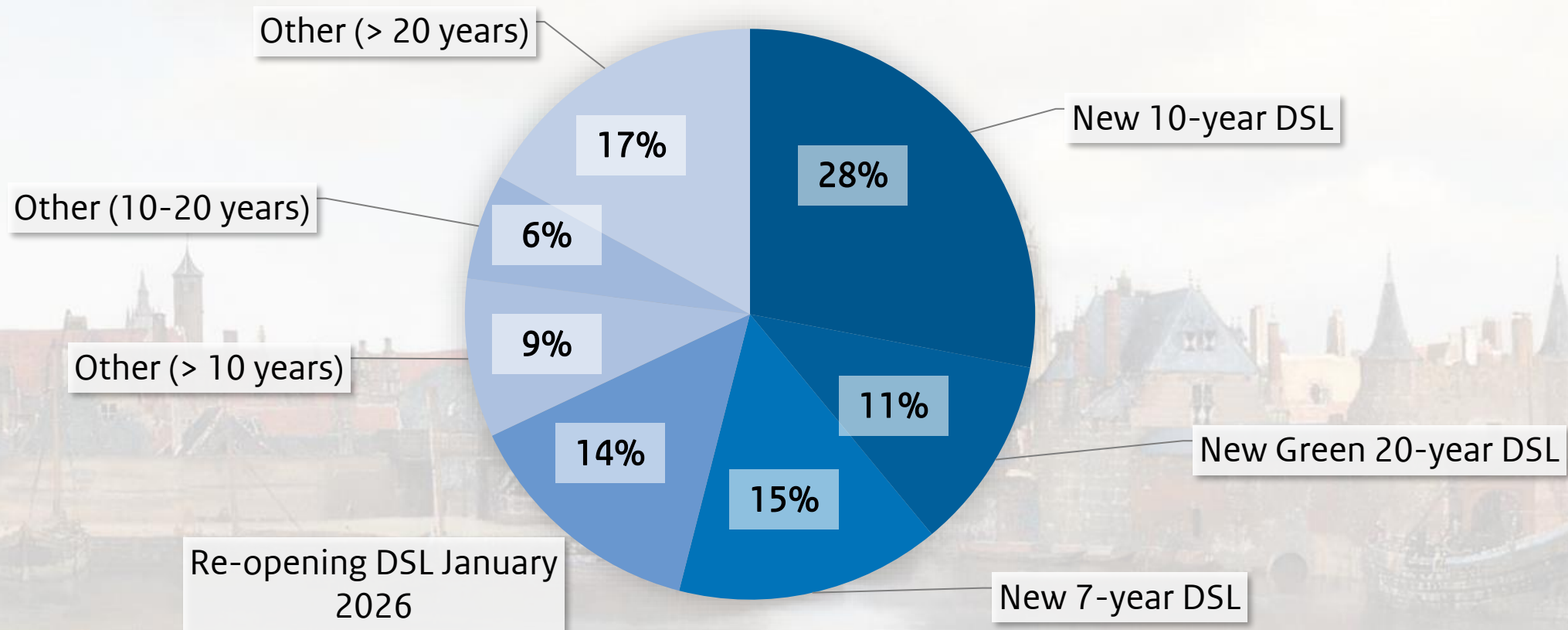
Liquidity

Flexibility



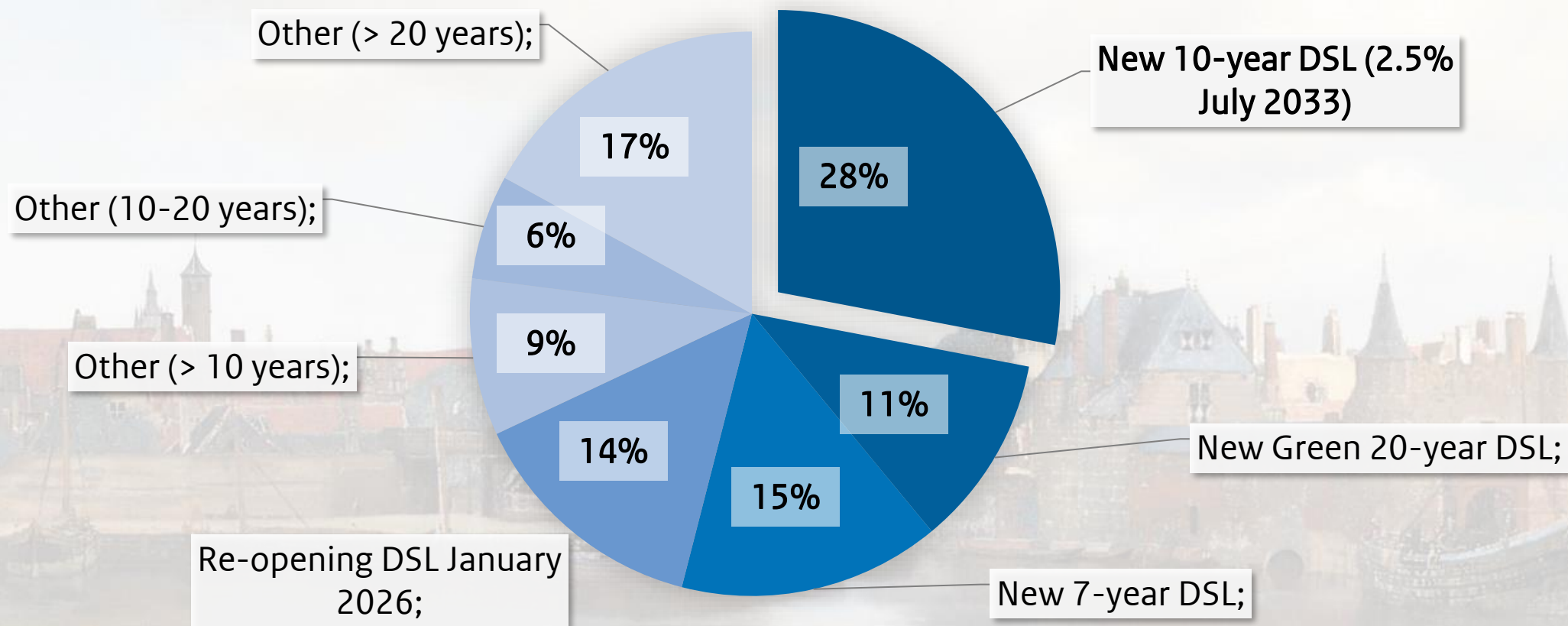


Funding on the capital market 2023: € 46 billion



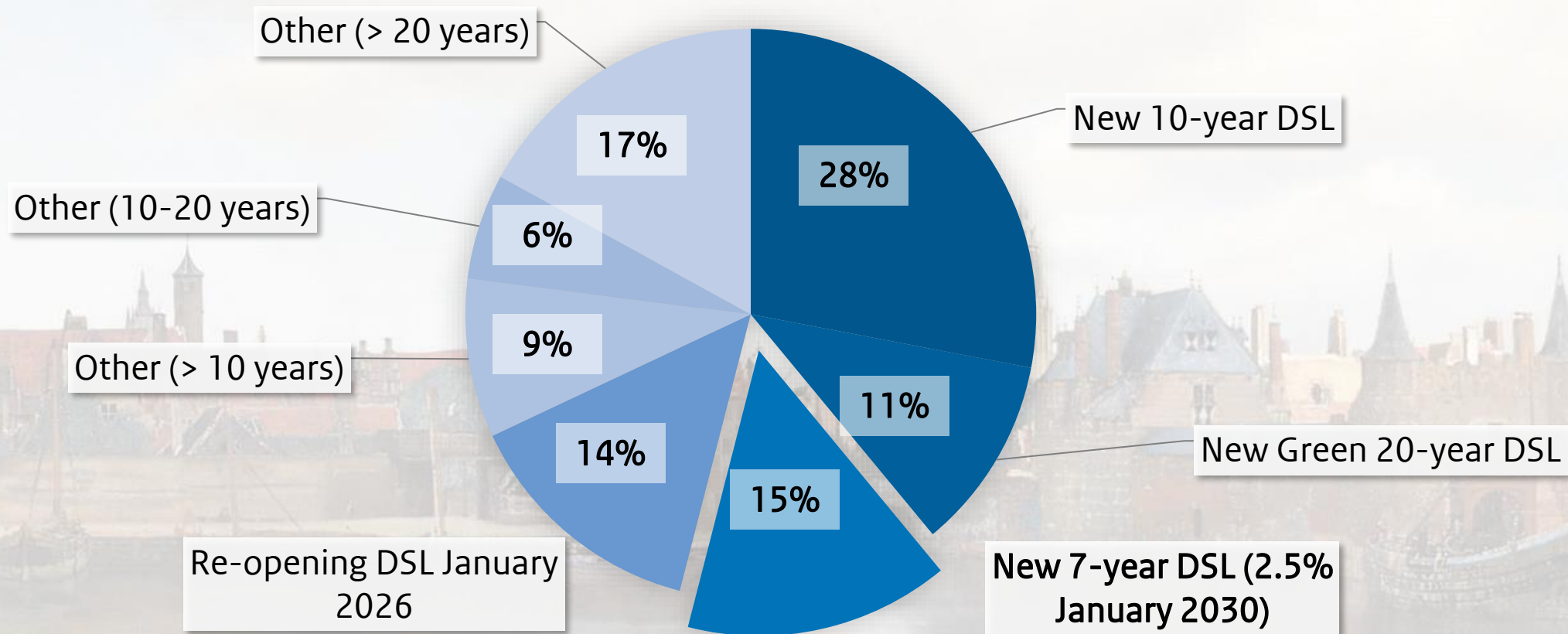


Funding on the capital market 2023: € 12 billion



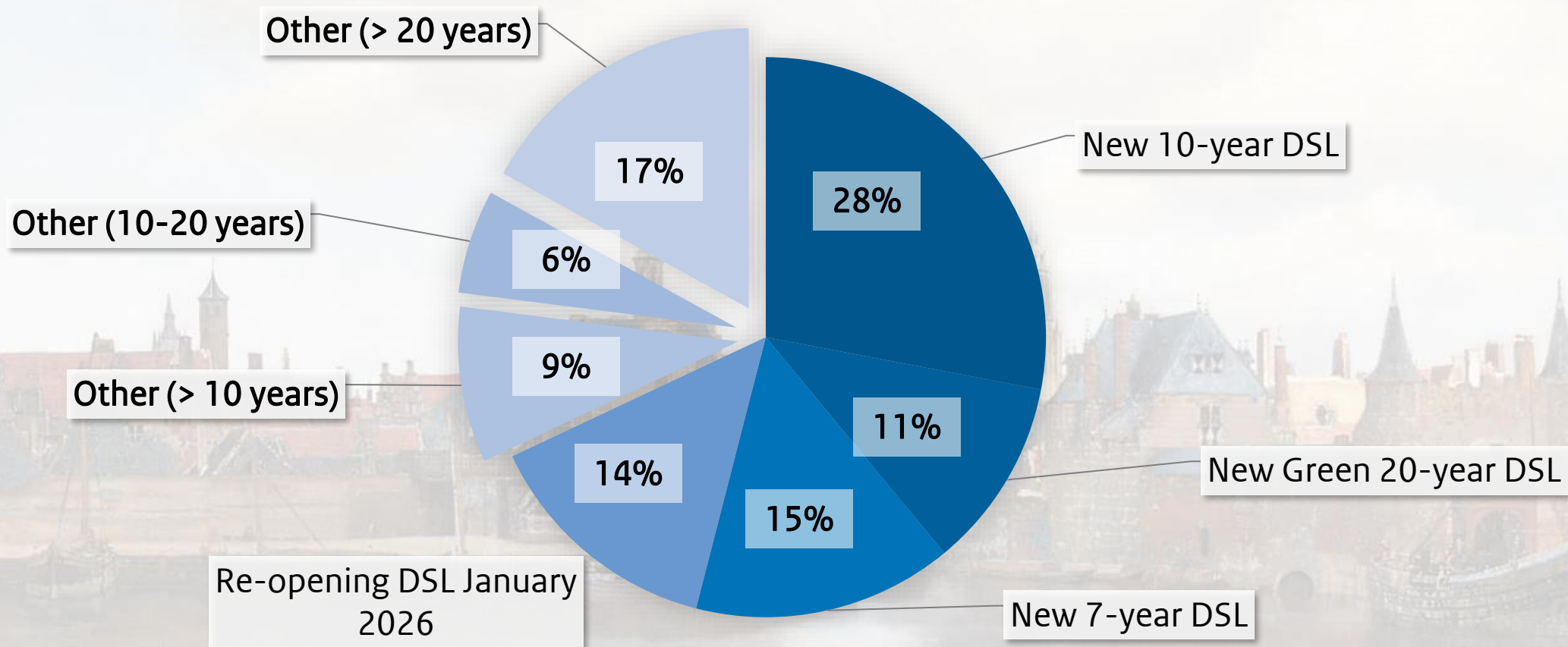


Funding on the capital market 2023: € 8 billion



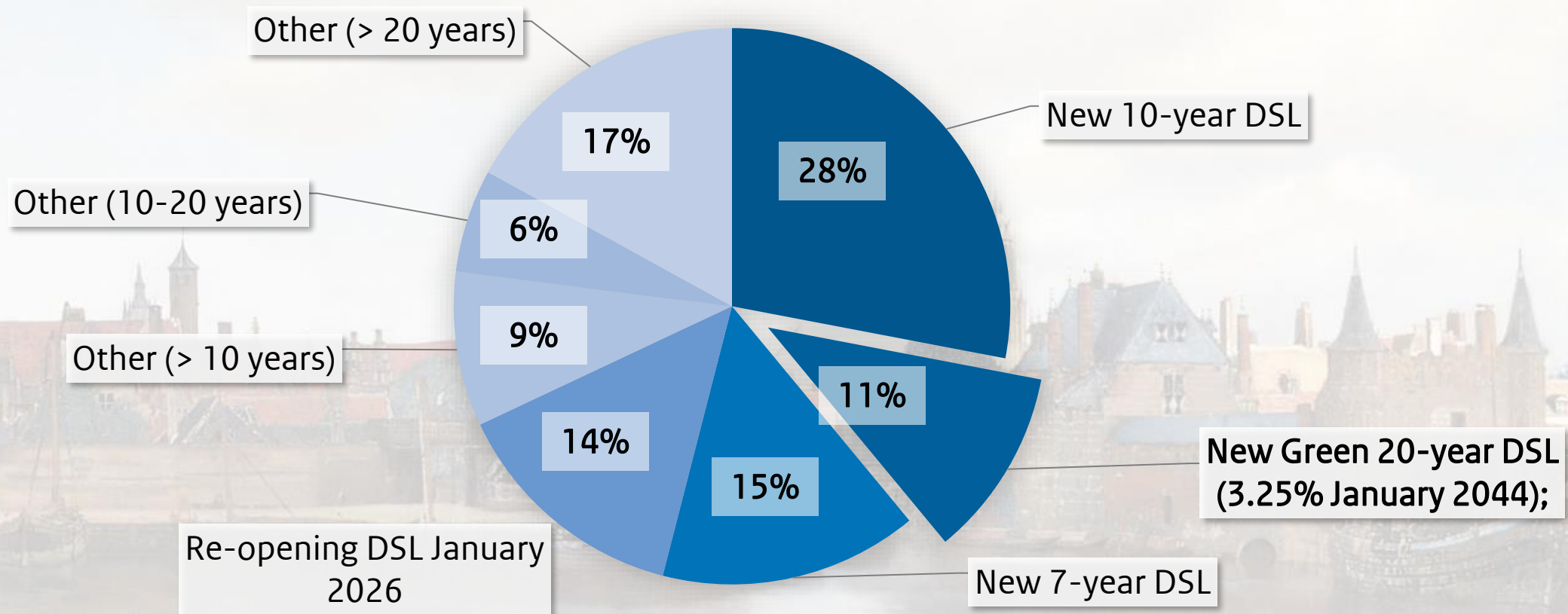


Funding on the capital market 2023: € 20 billion





Funding on the capital market 2023: € 5 billion





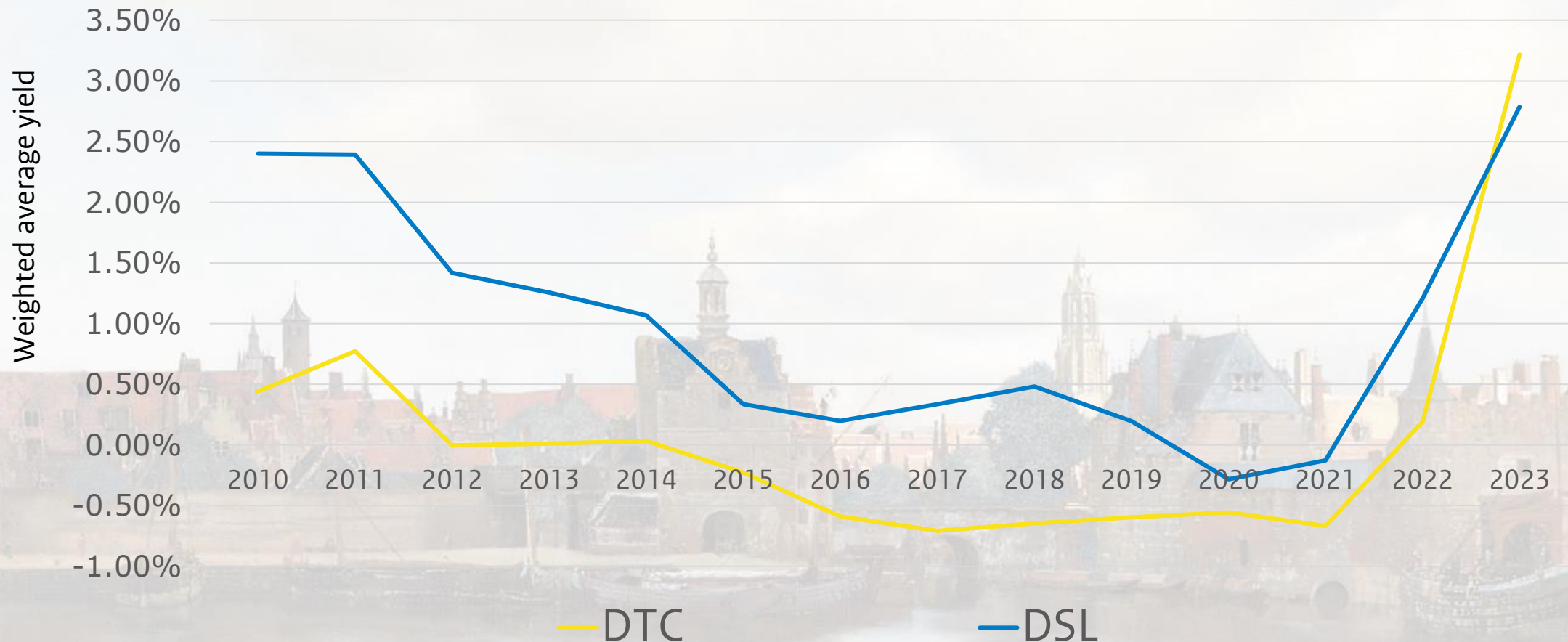
Green bond DDA: large demand

- Yield: 3.35%
- Bid-to-cover ratio of 3.67
- New framework with near ‘full’ adherence to EU-taxonomy
- Blue expenditures fully mapped to criteria relating to flood protection and climate adaption





Weighted average yield of primary issuance





Policy framework debt management *2020-2025*





Average maturity (end of year 2023)

8.5 years





12-month refixing amount (2023)

15.0%





12-month refixing amount (target 2024)

8.0 years (minimum)





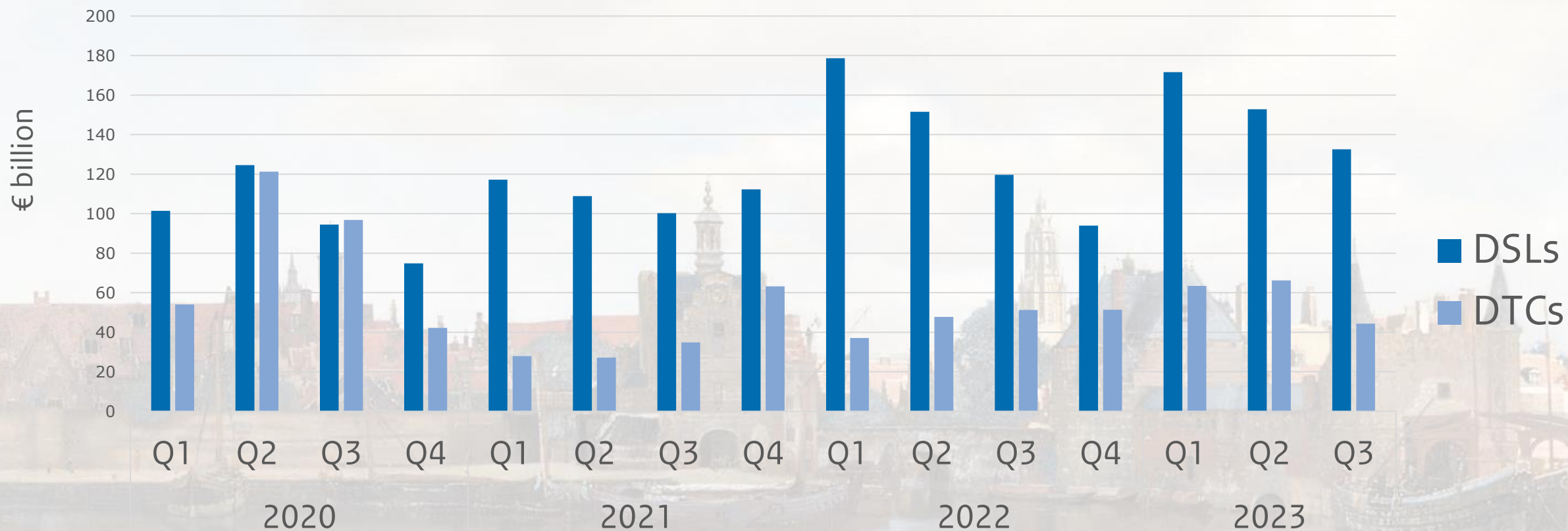
Average maturity (target 2024)

At most 25.0%



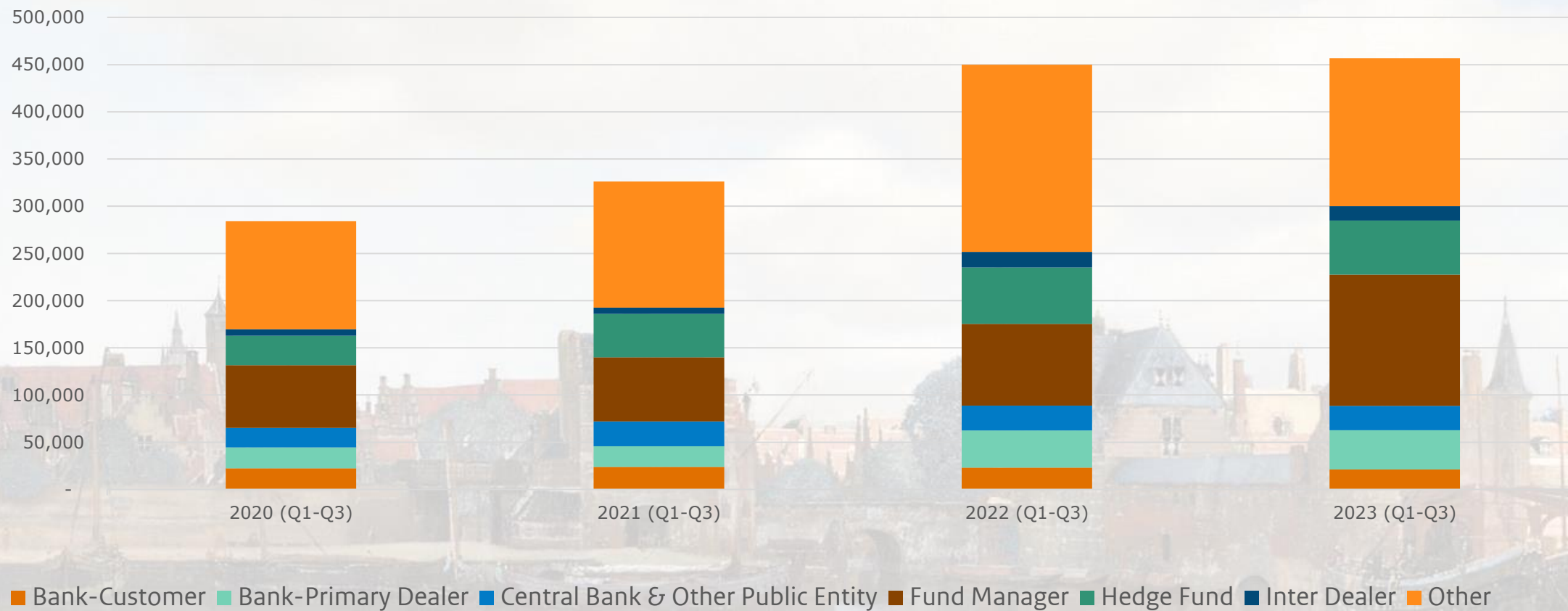


Secondary market: Turnover volumes at primary dealers





DSL turnover by investor type



A photograph of a solar farm with rows of solar panels stretching into the distance under a clear blue sky. A wind turbine is visible in the background on the left. A dark blue banner is overlaid at the bottom of the image.

The economic, budgetary and climate outlook



1.4% inflation in
November



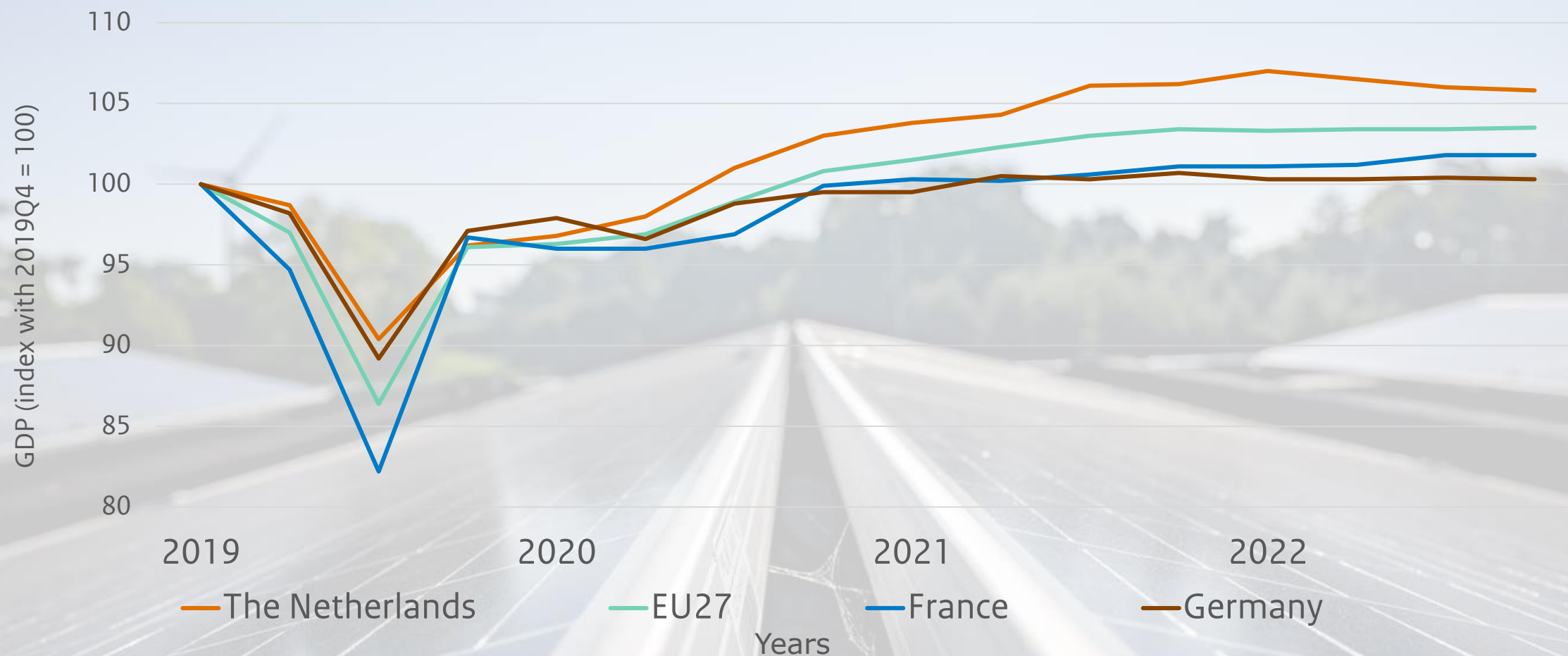
Unemployment rate of
3.6% in October



6.9% wage increase in
November

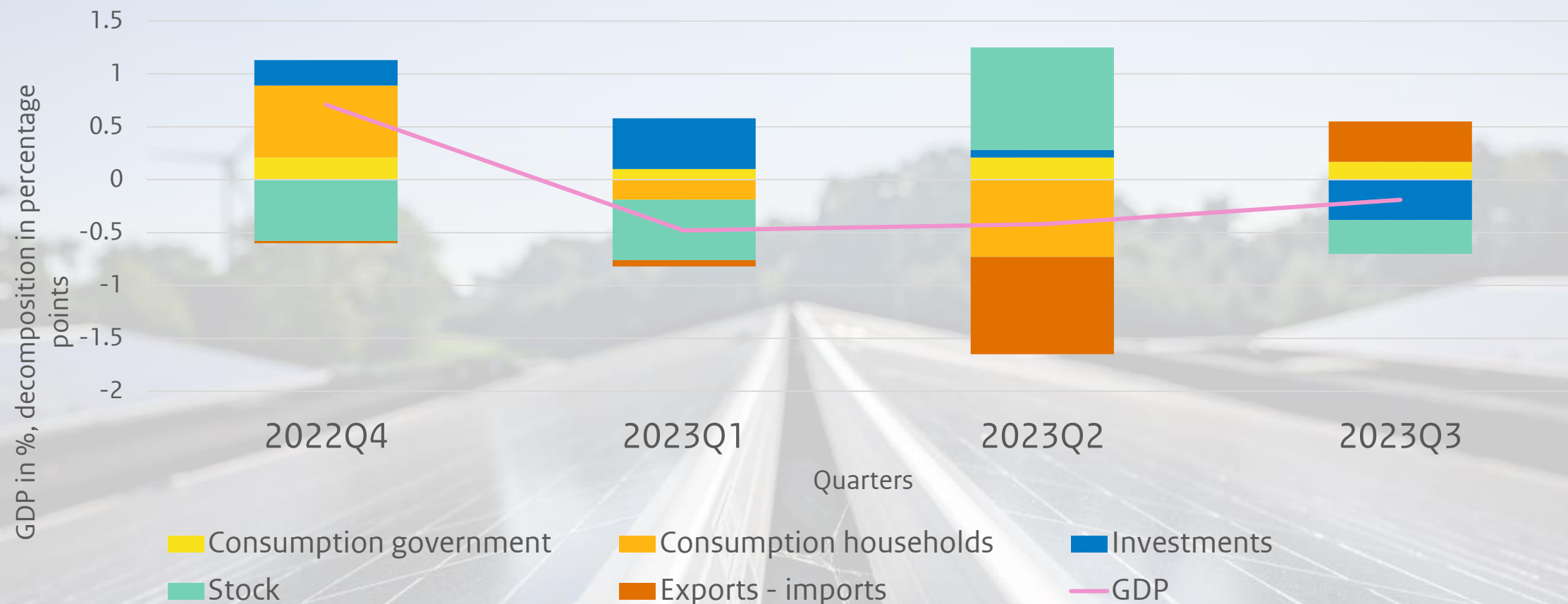


GDP volume developments based on seasonally adjusted data





Decomposition of GDP growth in the Netherlands





Outlook for the Netherlands in 2024





Growth in GDP for 2024

1.5%



Inflation in 2024

3.9%



Unemployment rate

4.0%



Nominal wage growth

5.0%



Median household purchasing power

1.8%



Key budgetary figures for the Netherlands (% GDP)

Funding need	2024
EMU balance	-3.1
EMU debt	47.3



Key budgetary figures for the Netherlands (% GDP)

Funding need	2024	2025	2026	2027	2028
EMU balance	-3.1	-3.0	-3.6	-2.6	-3.1
EMU debt	47.3	48.8	50.6	51.4	53.0



Climate mitigation



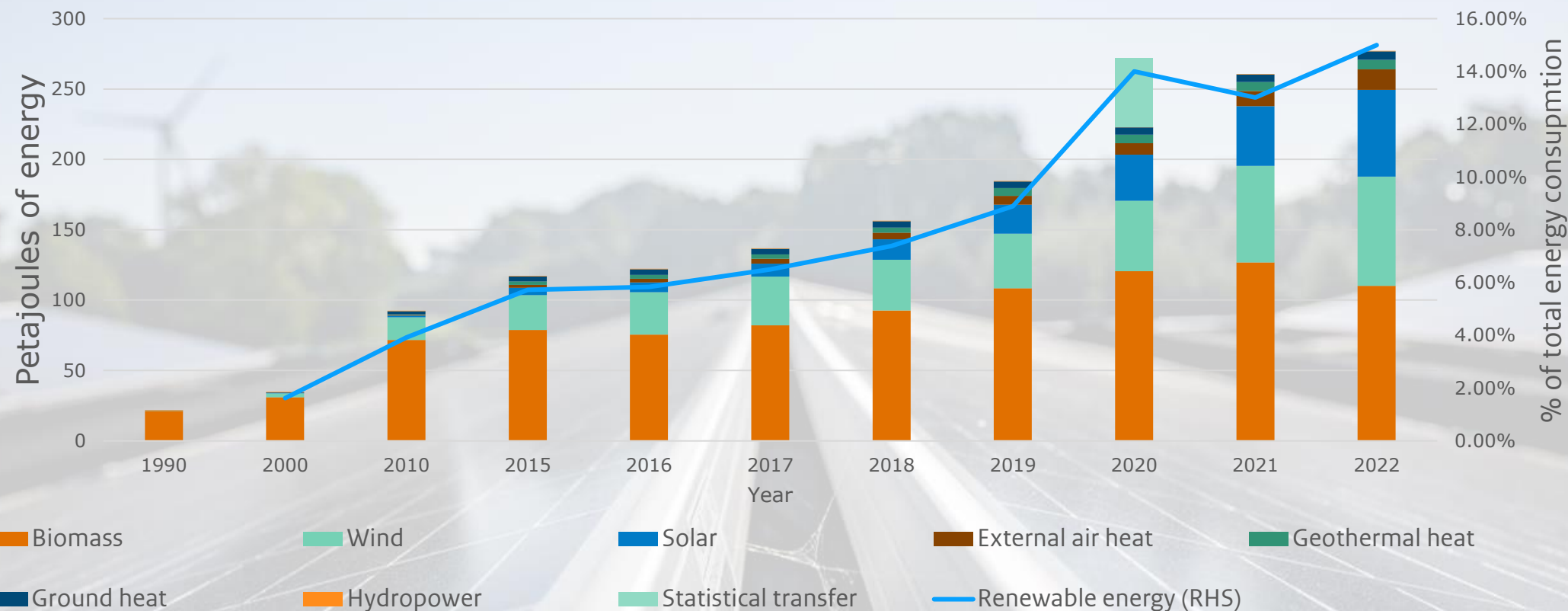


GHG emissions in Q3

-8.5%



Development of renewable energy





Koninklijk Nederlands
Meteorologisch Instituut
Ministerie van Infrastructuur en Waterstaat

Hoe kan Nederland de stijging van de zeespiegel aan?

Tussenbalans van het Kennisprogramma Zeespiegelstijging

Coverfoto: Stormvloedkering, Oosterschelde



KNMI'23 klimaatscenario's

voor Nederland



Looking ahead to 2024





Funding Need 2024

€75.7 billion



Funding Need 2024

Capital market redemptions

€32.8 billion



Funding Need 2024

Net money market ultimo

€24.4 billion



Funding Need 2024

Expected cash deficit for 2024

€18.5 billion



Funding Plan 2024

Capital market

Money market

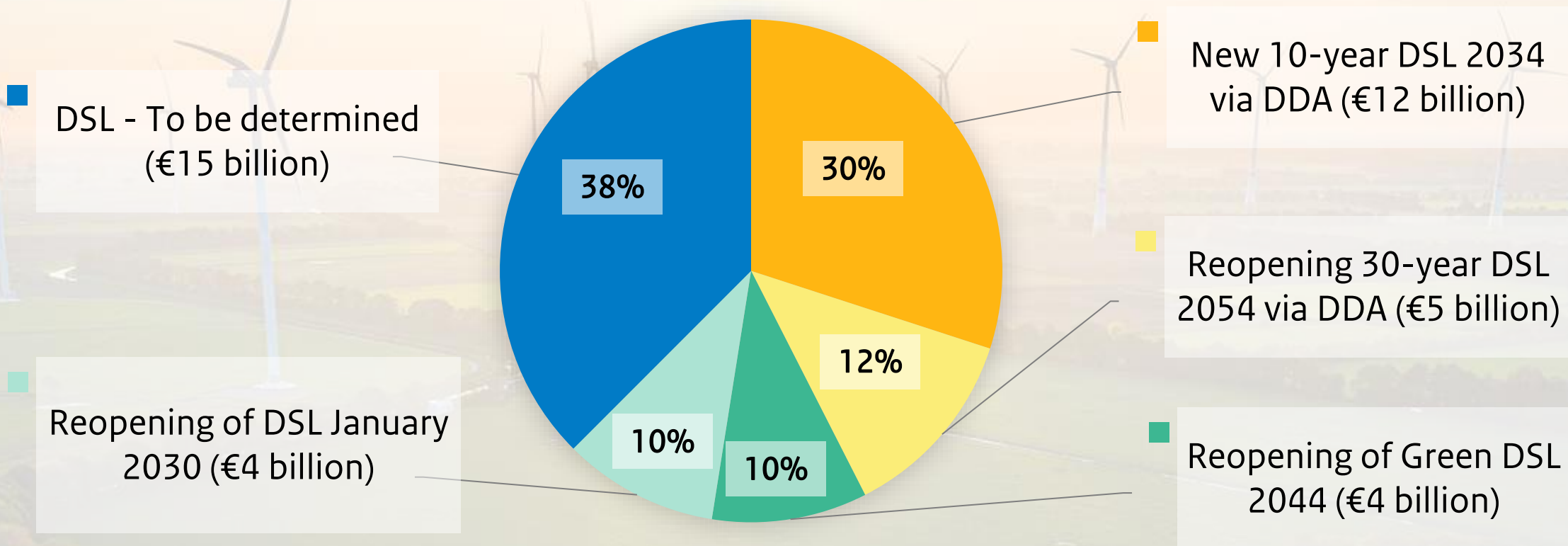
€40 billion

€35.7 billion



Capital market issuance in 2024:

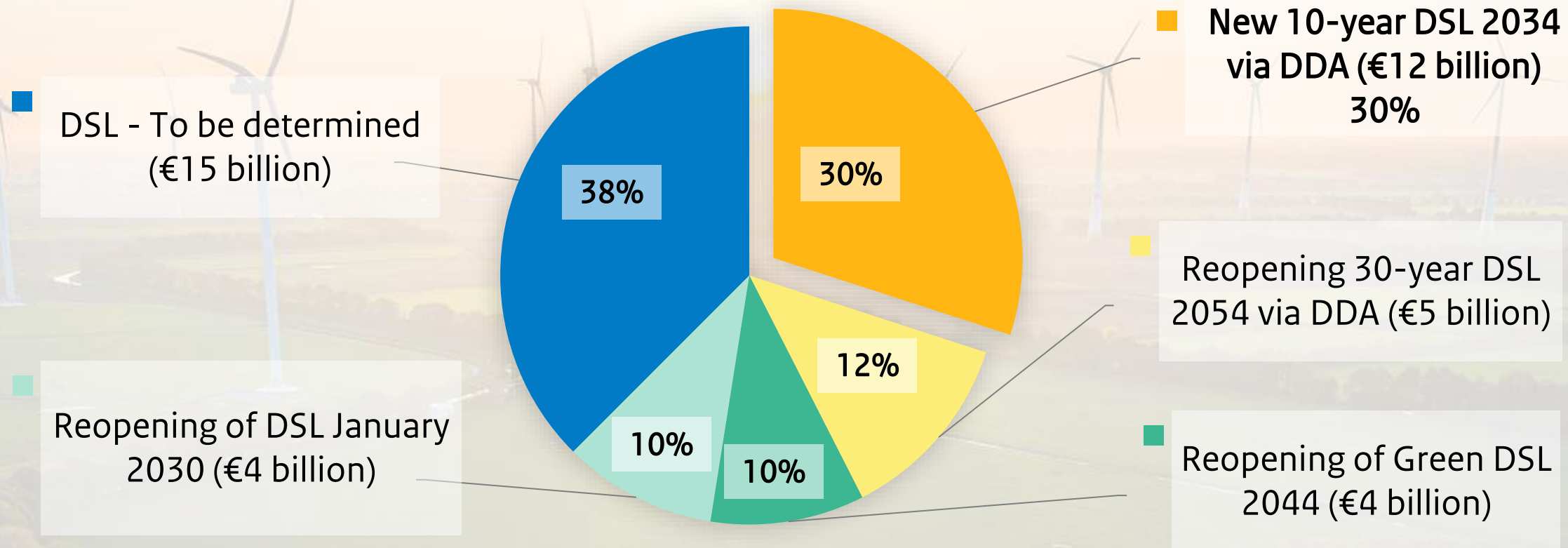
€ 40 billion nominal





Capital market issuance in 2024:

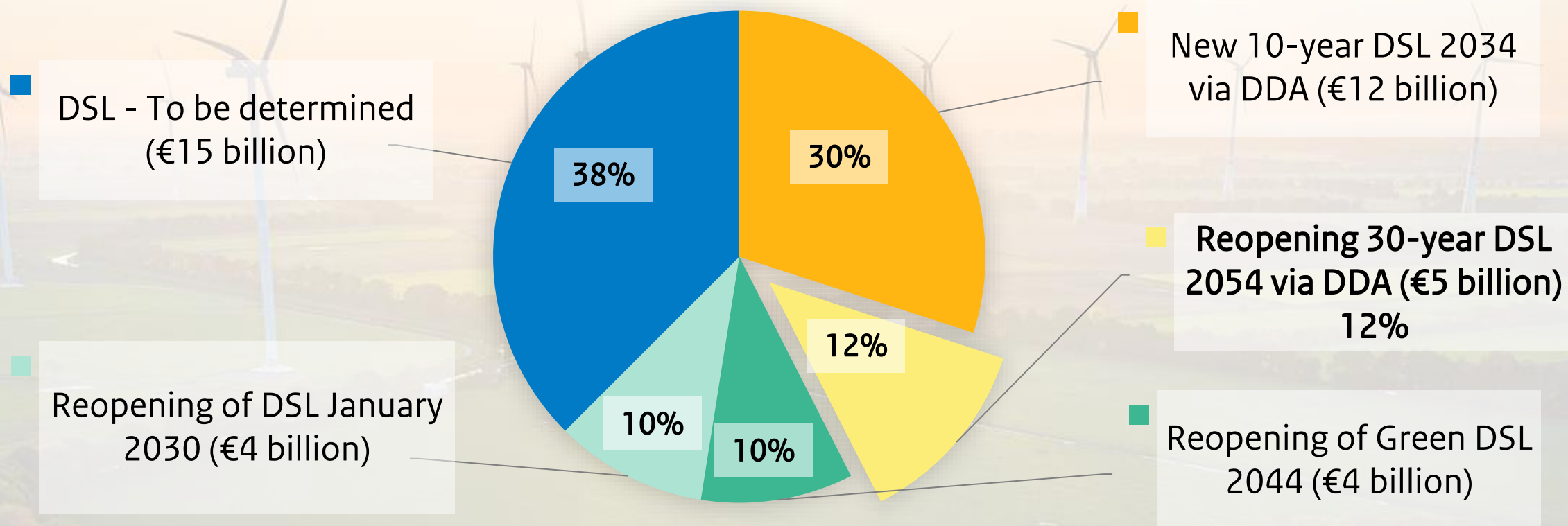
New 10-year DSL 2034





Capital market issuance in 2024:

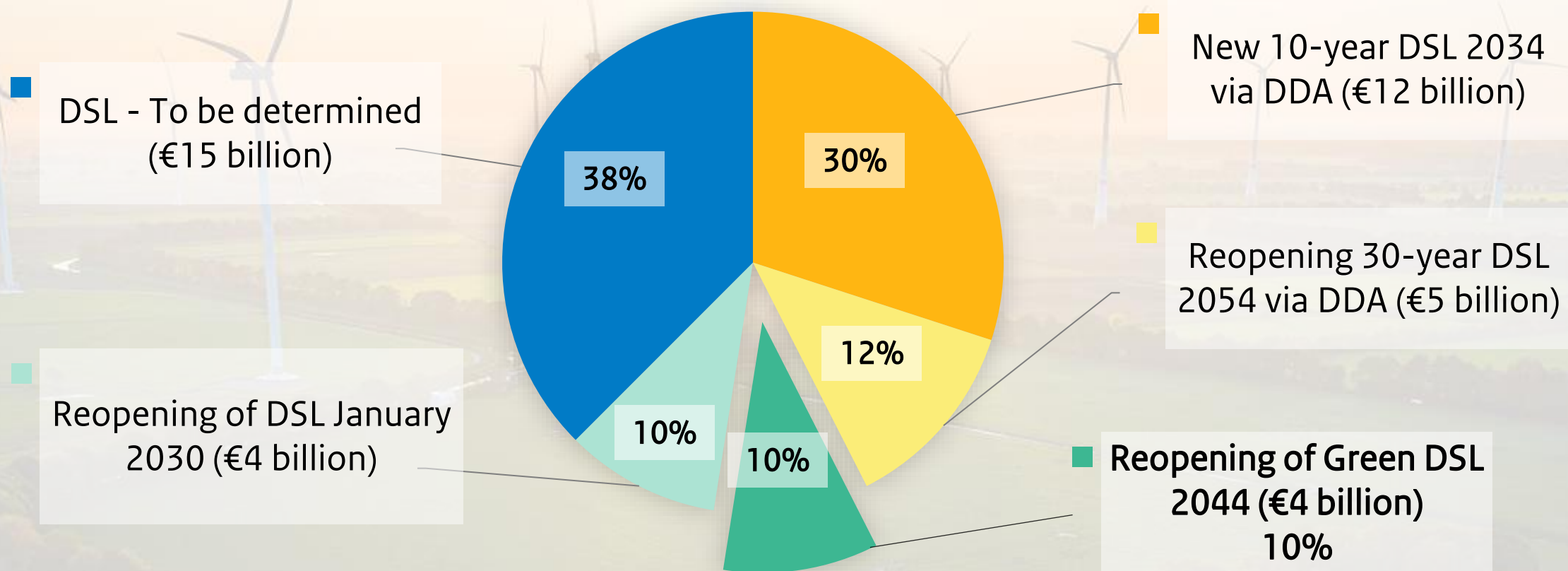
Reopening 30-year DSL 2054 via DDA





Capital market issuance in 2024:

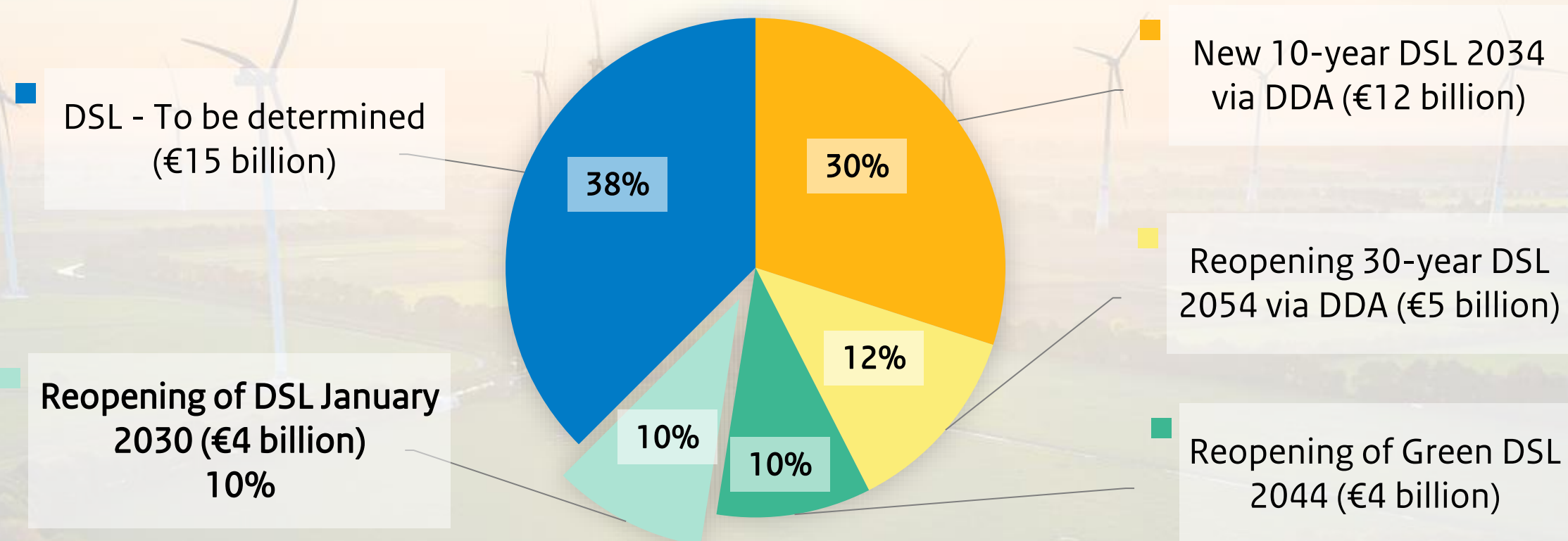
Reopening of Green DSL 2044





Capital market issuance in 2024:

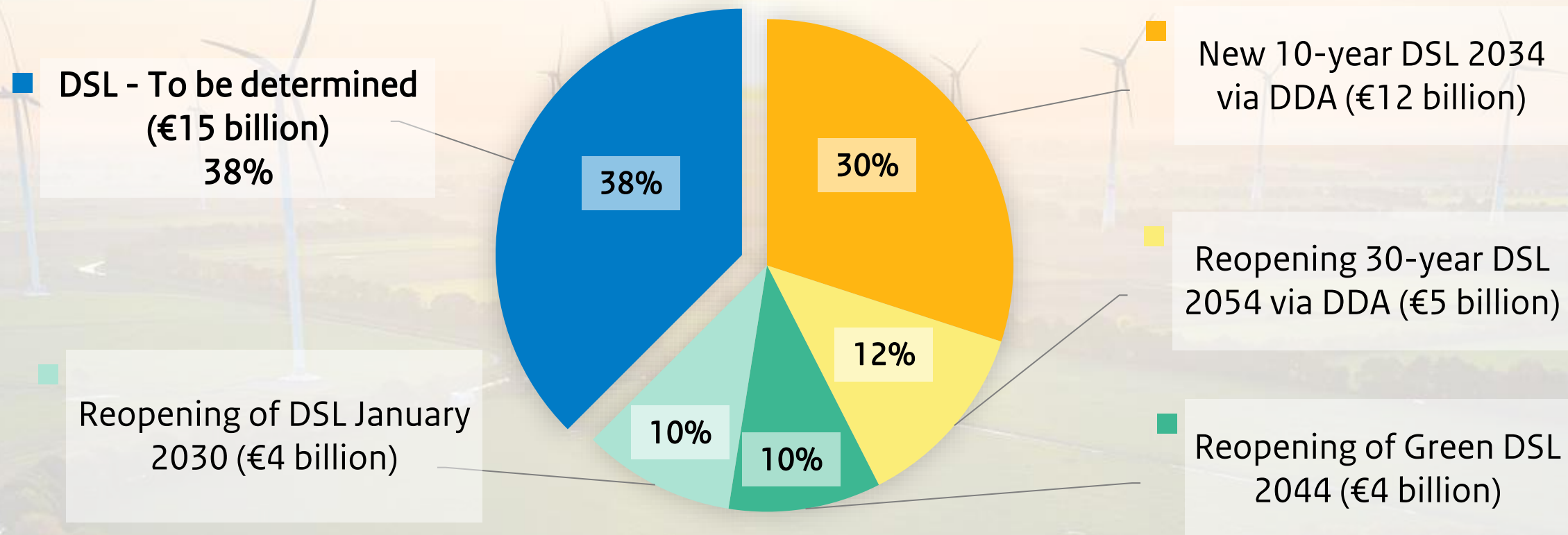
Reopening of DSL January 2030





Capital market issuance in 2024:

€ 15 billion to be determined





DSL issuance calendar Q1 2024

Auction date	Details	Target volume (€ billion)
9 January	Reopening DSL 15 January 2030	2 – 2.5
23 January	Tap of an existing DSL	To be announced
<i>The following bonds are scheduled to be auctioned in February and March of 2024</i>		
	New 10-year bond: DSL 15 July 2034	4-6
	Reopening Green DSL 15 January 2044	To be announced
	Tap of an existing DSL	To be announced
	Tap of an existing DSL	To be announced



DTC issuance calendar Q1 2024

Auction date	Settlement date	Shorter-dated programme	Longer-dated programme
08 January 2024	10 January 2024	27 March 2024	27 June 2024
15 January 2024	17 January 2024	29 April 2024	27 June 2024
05 February 2024	07 February 2024	30 May 2024	30 July 2024
19 February 2024	21 February 2024	29 April 2024	30 July 2024
04 March 2024	06 March 2024	27 June 2024	29 August 2024
18 March 2024	20 March 2024	30 May 2024	29 August 2024

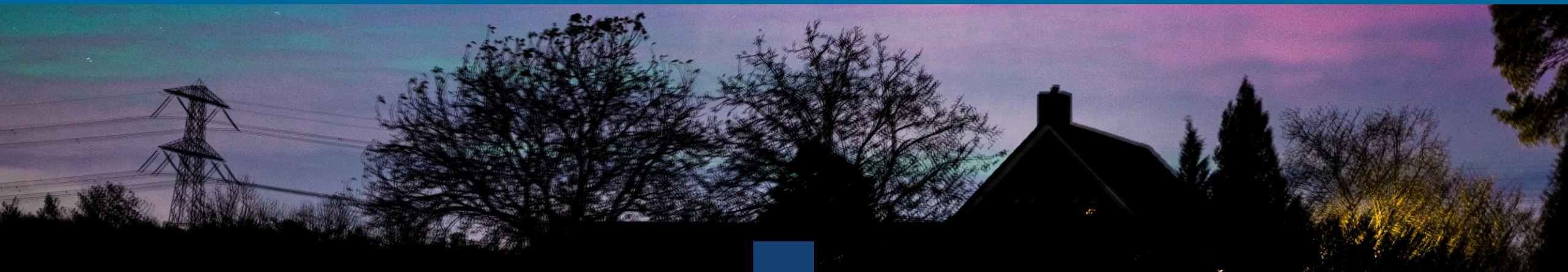


Q&A





Keynote speech by Mathijs Bouman



A person wearing a dark, hooded raincoat is riding a bicycle away from the viewer on a wet, reflective road. The road is flanked by green grass and leads towards a bright, hazy horizon over a body of water. The sky is overcast and grey. The overall mood is one of perseverance and hope.

Headwinds

*Labour shortage is hurting growth,
but help is on the horizon...*

Mathijs Bouman *(with some help from DALL-E)*

Dutch State Treasury Agency

15-12-2023

RANKING OF RANKINGS

Concurrentie Innovatie Ontwikkeling Geluk



IMD: World Competitiveness Ranking
GII: Global Innovation Index
HDI*: Human Development Index
Happiness: World Happiness Report
Totaal: Som van alle posities op ranglijsten

2022 **2023**

(1)	1	Zwitserland	3	1	1	8	13	-
(2)	2	Denemarken	1	9	6	2	18	-
(3)	3	Zweden	8	2	7	6	23	-
(4)	4	Nederland	5	7	10	5	27	-
(5)	5	Finland	11	6	11	1	29	-
(9)	6	Noorwegen	14	19	2	7	42	↑
(10)	7	IJsland	16	20	3	3	42	↑
(6)	8	Singapore	4	5	12	25	46	↓
(15)	9	Ierland	2	22	8	14	46	↑
(7)	10	VS	9	3	21	15	48	↓

RANKING OF RANKINGS

Concurrentie Innovatie Ontwikkeling Geluk

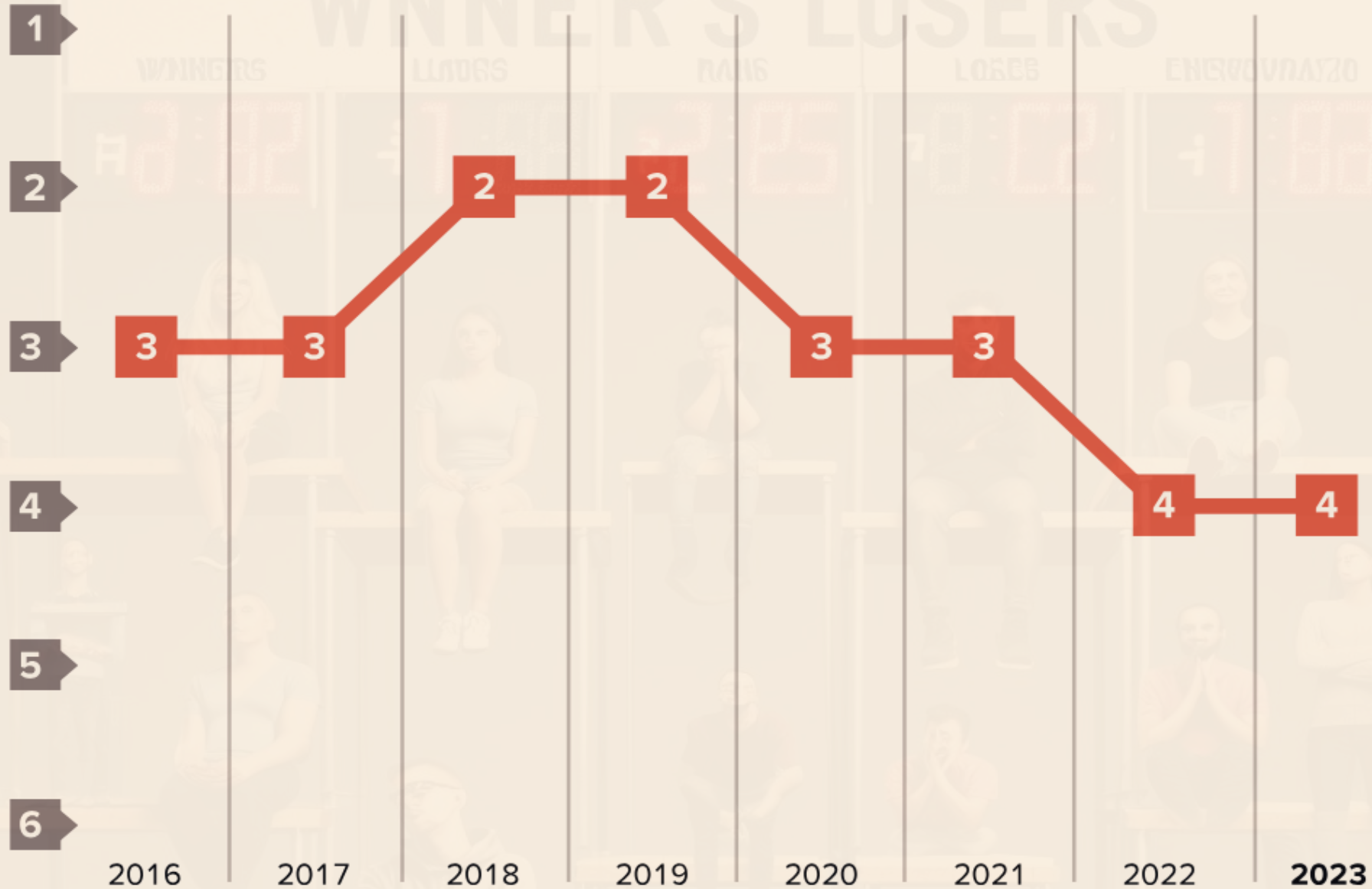


IMD: World Competitiveness Ranking
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Totaal: Som van alle posities op ranglijsten

2022	2023		IMD: World Competitiveness Ranking	GII: Global Innovation Index	HDI*: Human Development Index	Happiness: World Happiness Report	Totaal: Som van alle posities op ranglijsten	
(8)	11	Duitsland	22	8	9	16	55	↓
(12)	12	Canada	15	15	15	13	58	↑
(14)	13	Australië	19	24	5	12	60	↑
(18)	14	Israël	23	14	22	4	63	↑
(19)	15	België	13	23	13	17	66	↑
(13)	16	Luxemburg	20	21	17	9	67	↓
(11)	17	VK	29	4	18	19	70	↓
(16)	18	Oostenrijk	24	18	25	11	78	↓
(19)	19	Nieuw-Zeeland	31	27	13	10	81	-
(20)	20	Frankrijk	33	11	28	21	93	-

RANKING OF RANKINGS

Plaats van Nederland op Lijst der Lijsten



Resilient Global Economy Is Limping Along, with Growing Divergences

The global economy continues to recover slowly from the blows of the **pandemic, Russia's invasion of Ukraine, and the cost-of-living crisis**. In retrospect, the resilience has been remarkable. Despite the disruption in energy and food markets caused by the war, and the **unprecedented tightening** of global monetary conditions to combat decades-high inflation, the global economy has slowed, but not stalled. Yet growth remains slow and uneven, with growing global divergences. **The global economy is limping along, not sprinting.**

LIMPING ALONG, NOT SPRINTING

GDP growth (IMF, october)

	2023	2024
Germany	-0.5%	0.9%
Netherlands	0.6%	1.1%
France	1.0%	1.3%
Italy	0.7%	0.7%
UK	0.5%	0.6%

2021:

**from services
to goods**



2022:

**from goods
to services**



2023:

**from luxury
to basic**



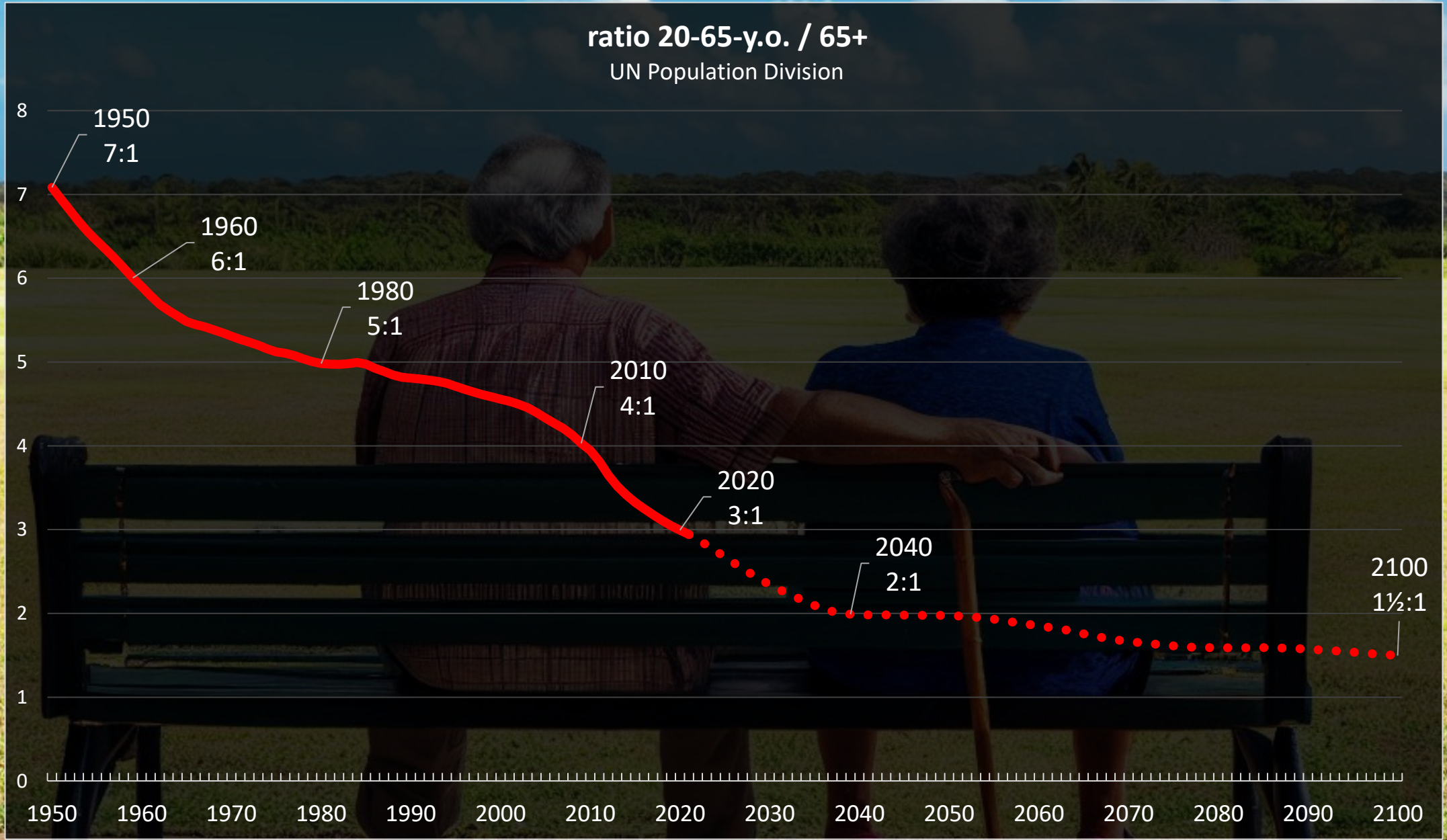
TEAM TRANSITORY VINDICATED!

Inflation euro area

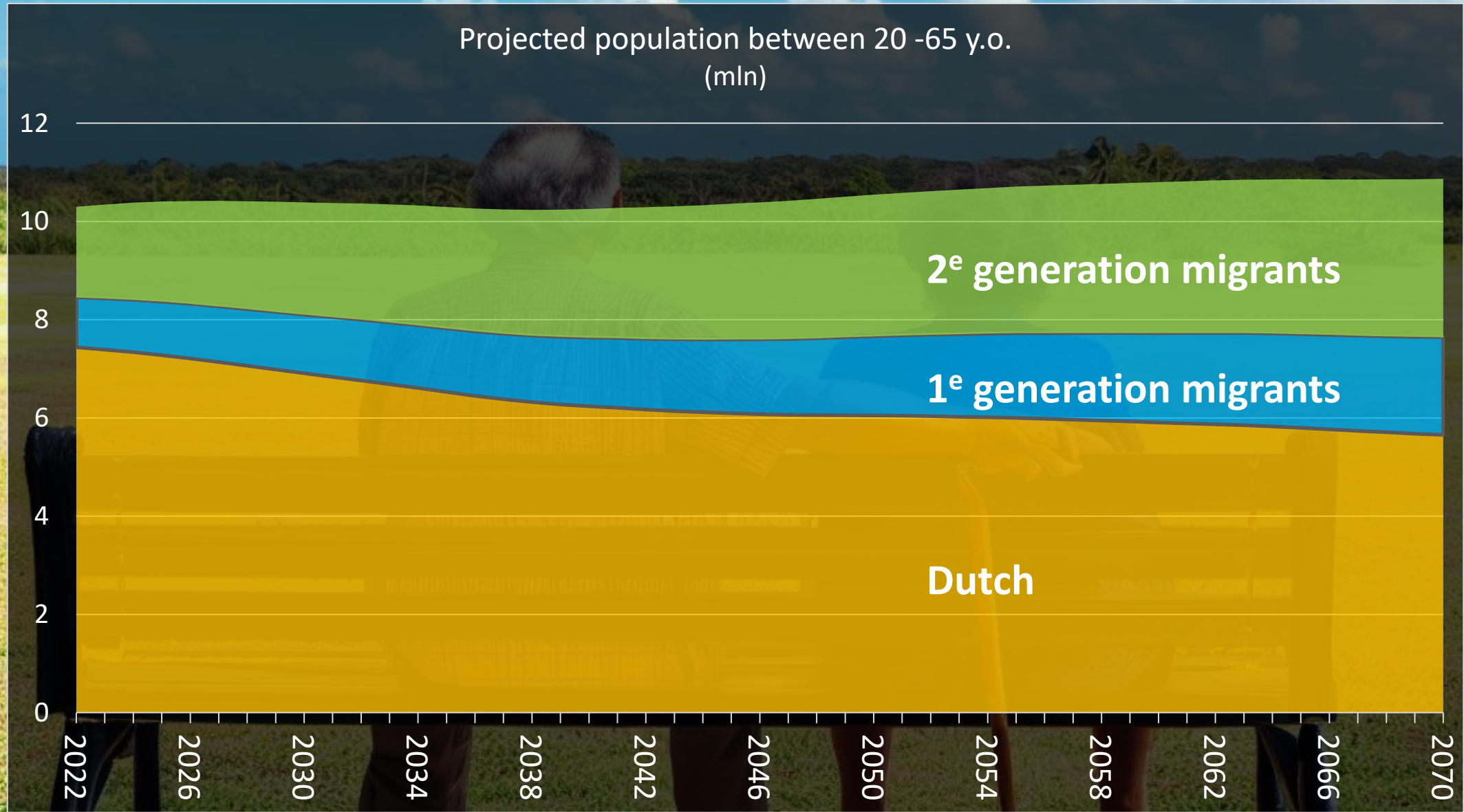


TIGHT LABOUR MARKET IS HERE TO STAY






WORKING AGE POPULATION

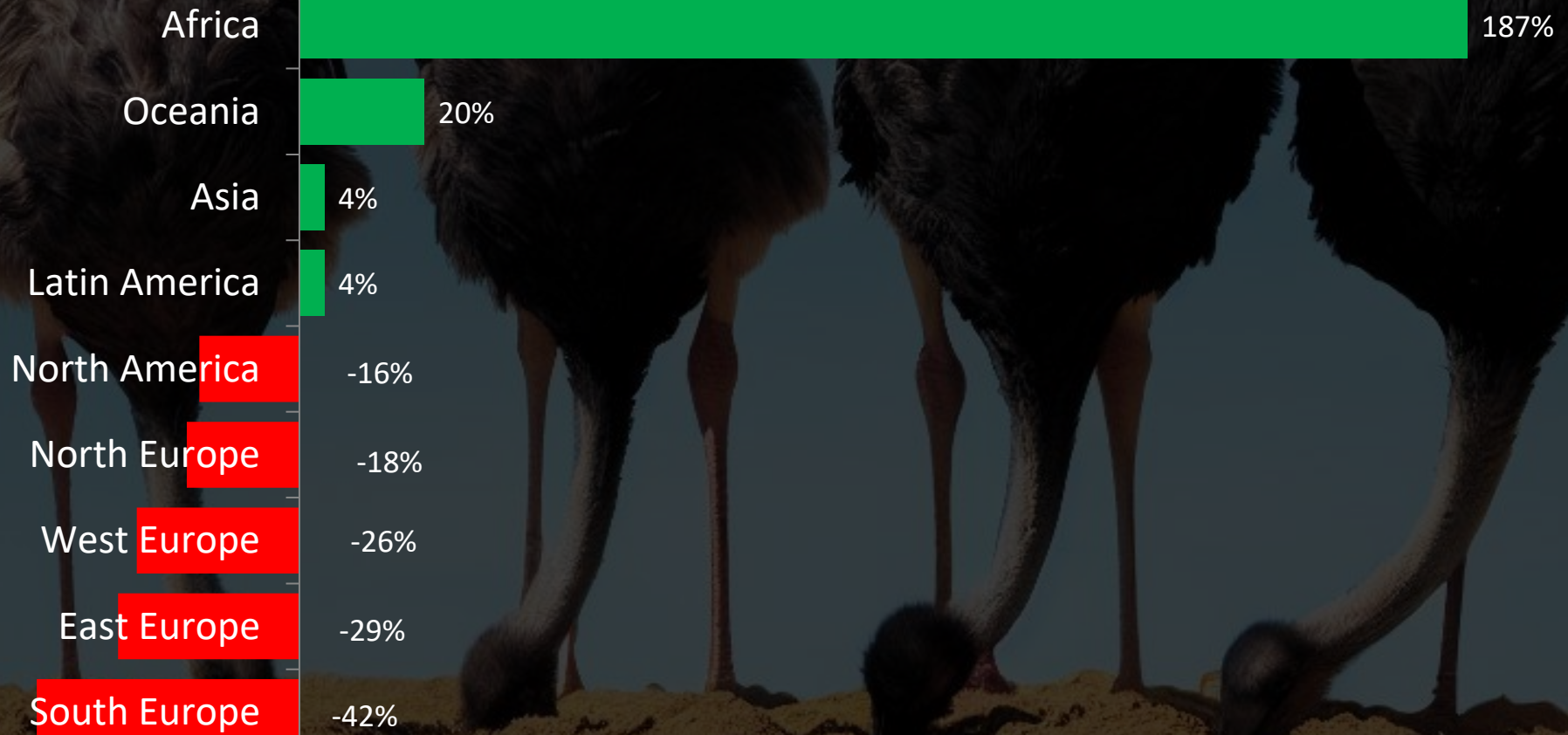


MIGRATION: THE NEW POLITICAL TABOO

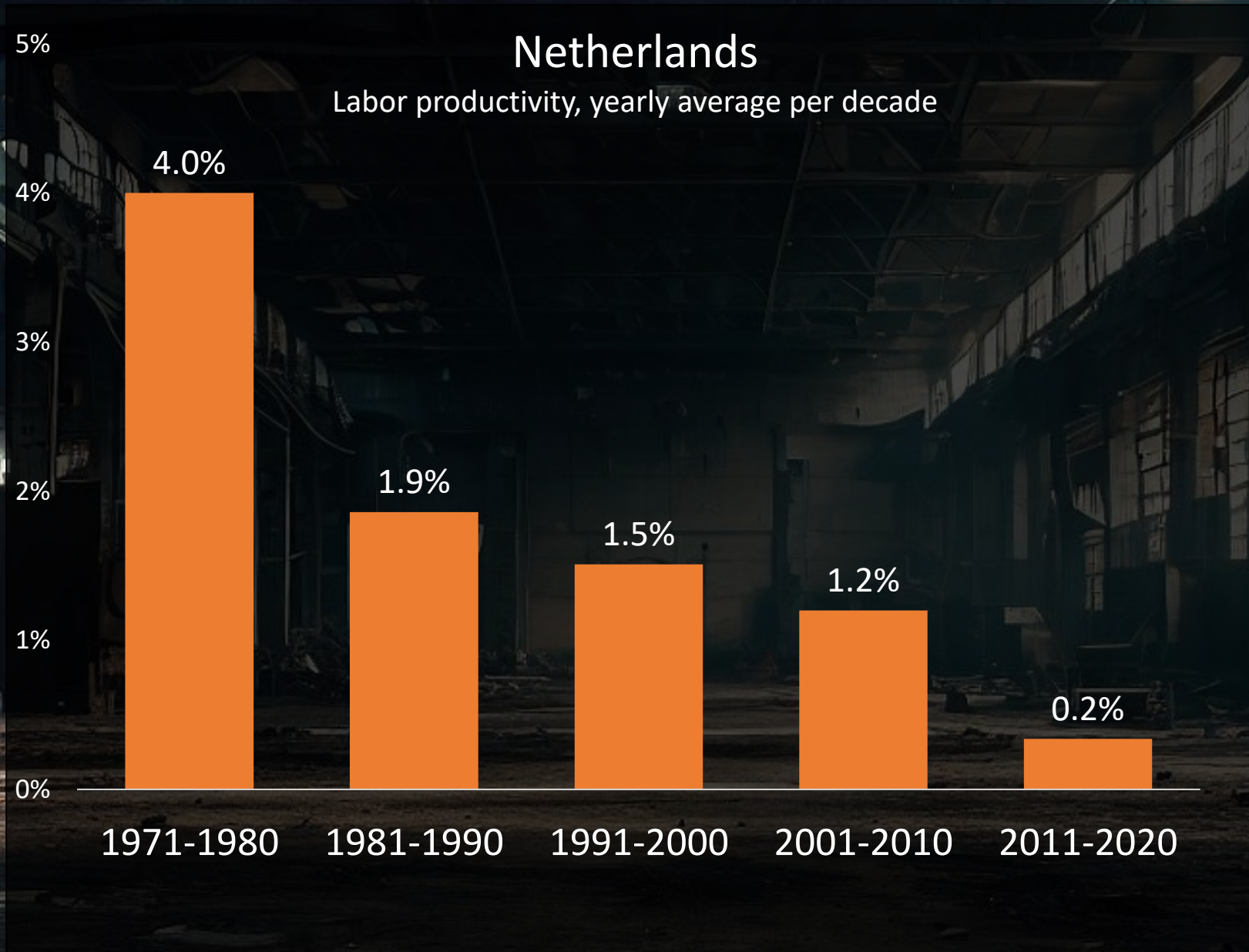
- 
- **Expats:** not so welcome anymore
 - **Foreign students:** “learn Dutch first!”
 - **‘Knowledge migrants’:** who needs them anyway?
 - **Non-EU Labour migrants:** solution suddenly a problem
 - **EU Labour migrants:** “change the treaty!”
 - **Asylum seekers:** “change the other treaty as well!”

DEMOGRAPHICS WILL CRUSH THE MIGRATION TABOO

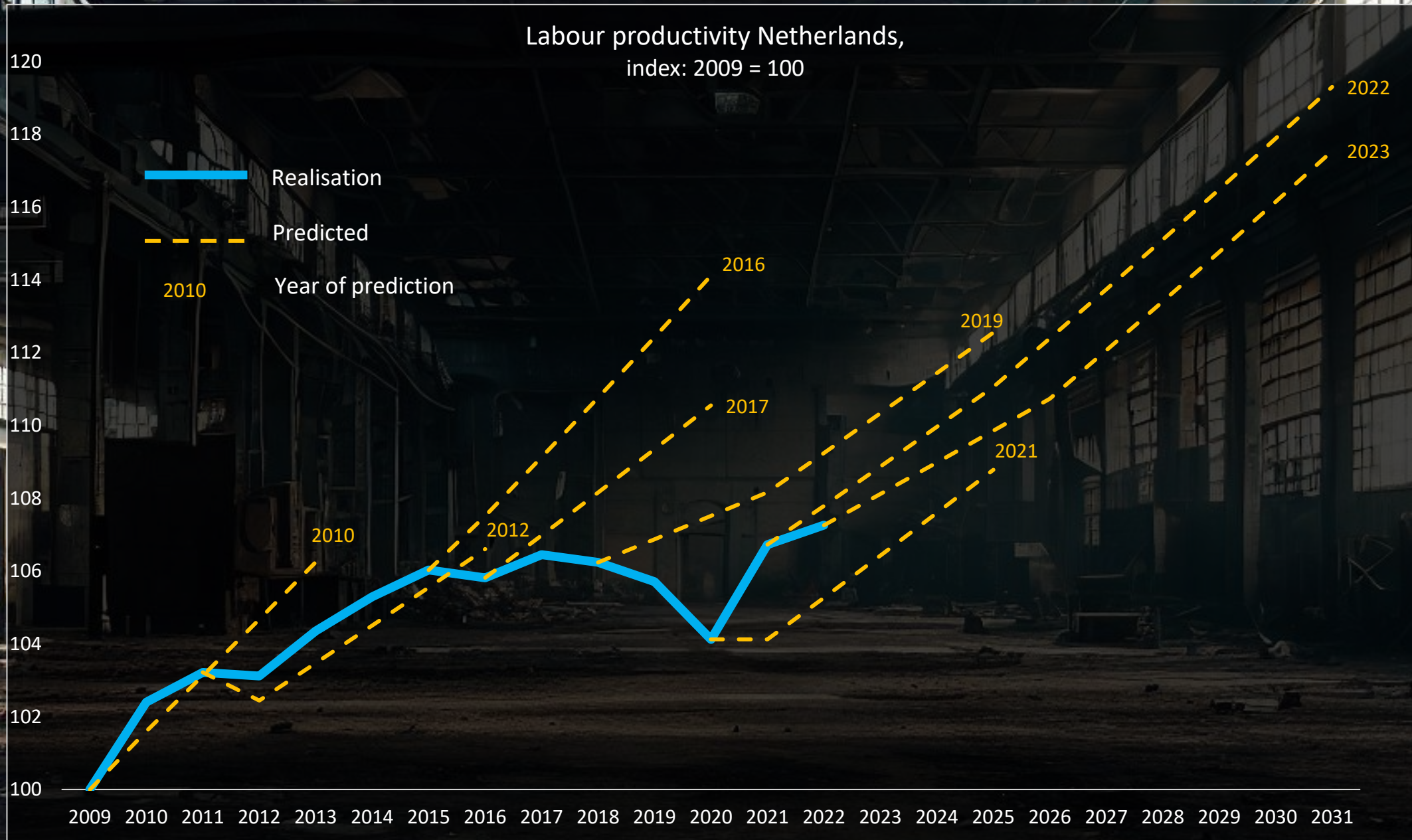
Population change 20-65 y.o
2020-2070, excluding migration



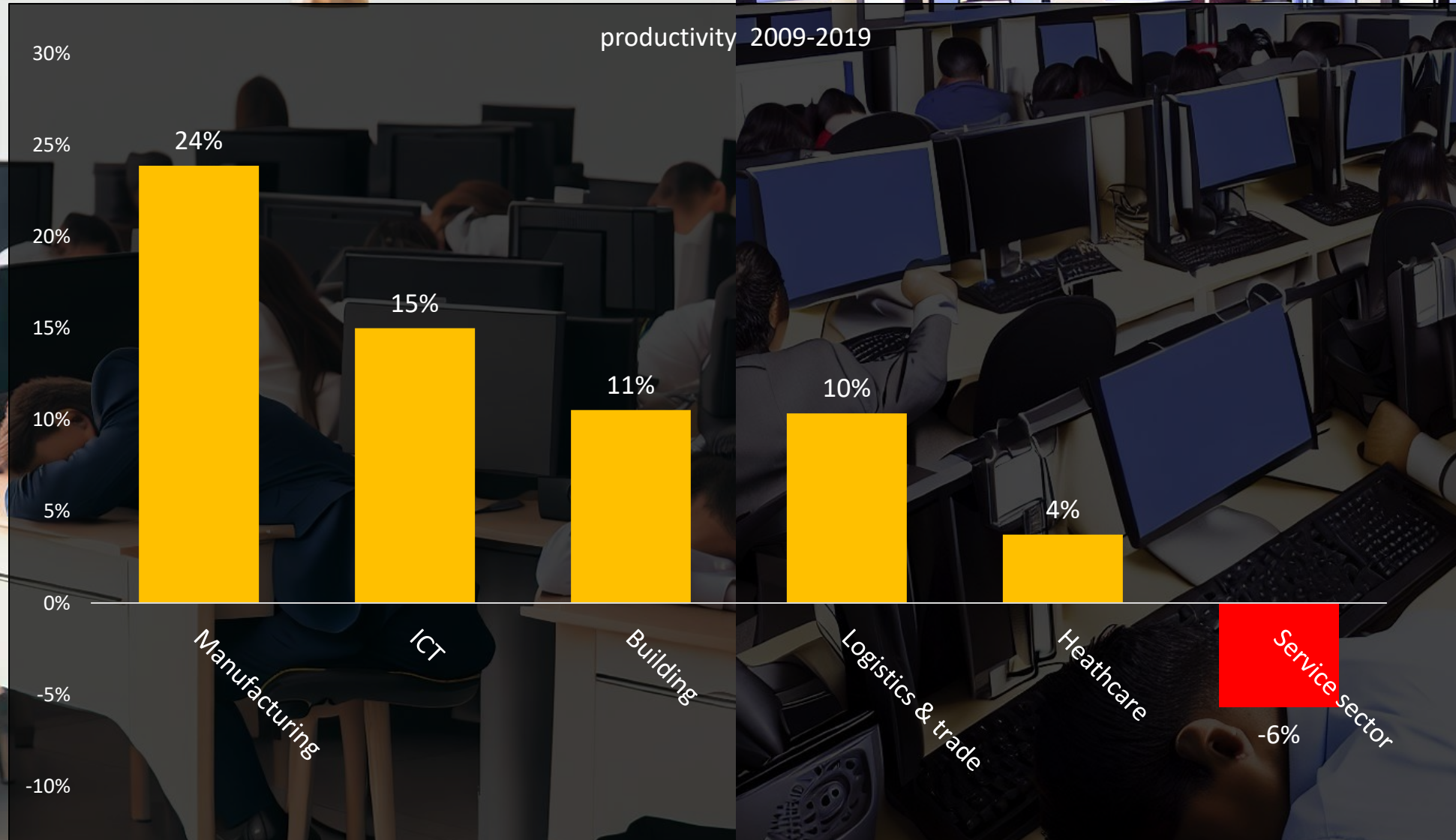
THE ALTERNATIVE: PRODUCTIVITY GROWTH



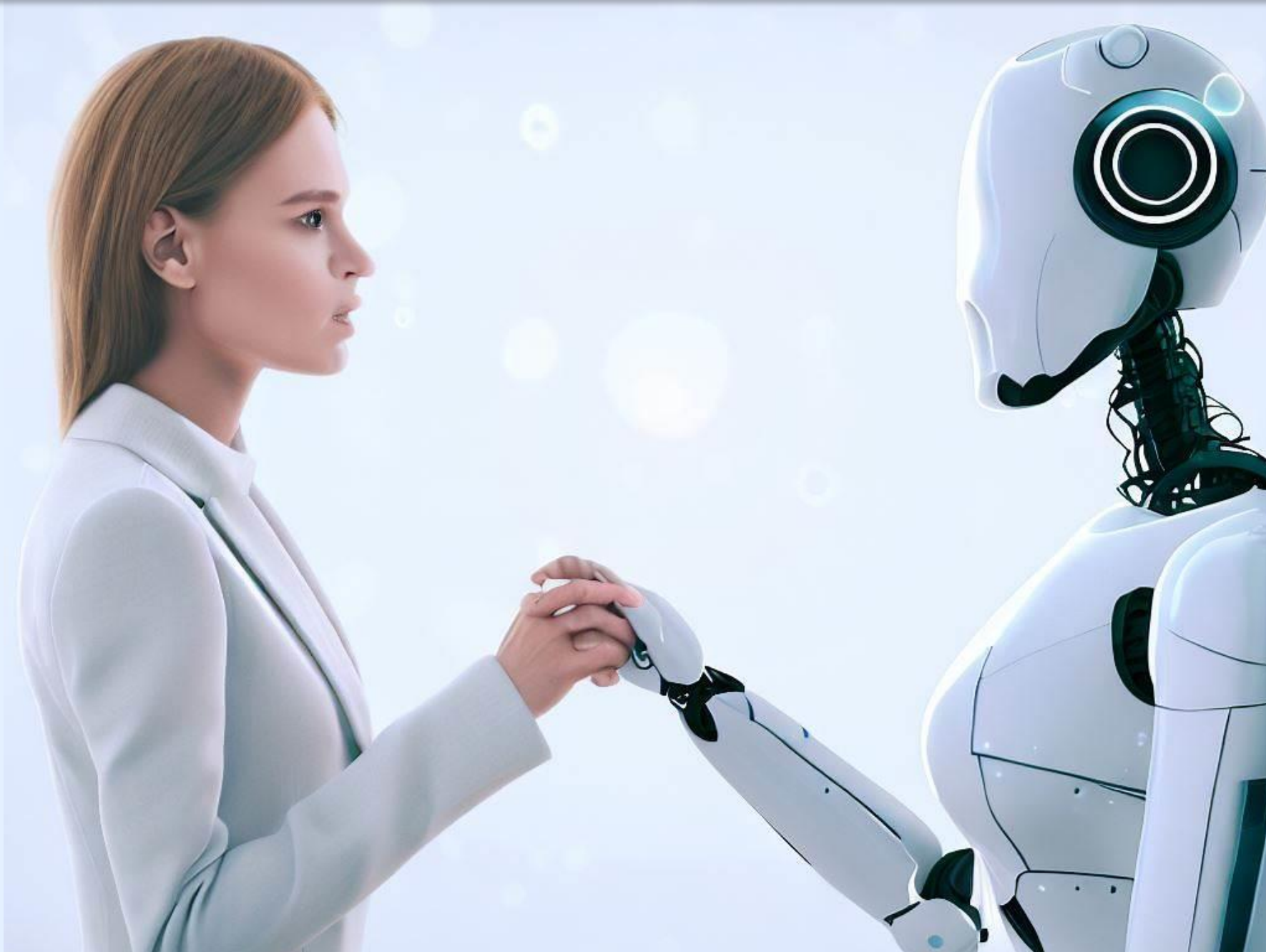
PRODUCTIVITY: ALWAYS DISSAPOINTING



SERVICE SECTOR



IS AI THE MISSING PIECE IN THE PRODUCTIVITY PUZZLE?



Hype Cycle for Artificial Intelligence, 2023



Plateau will be reached:

○ less than 2 years

● 2 to 5 years

● 5 to 10 years

▲ more than 10 years

⊗ obsolete before plateau

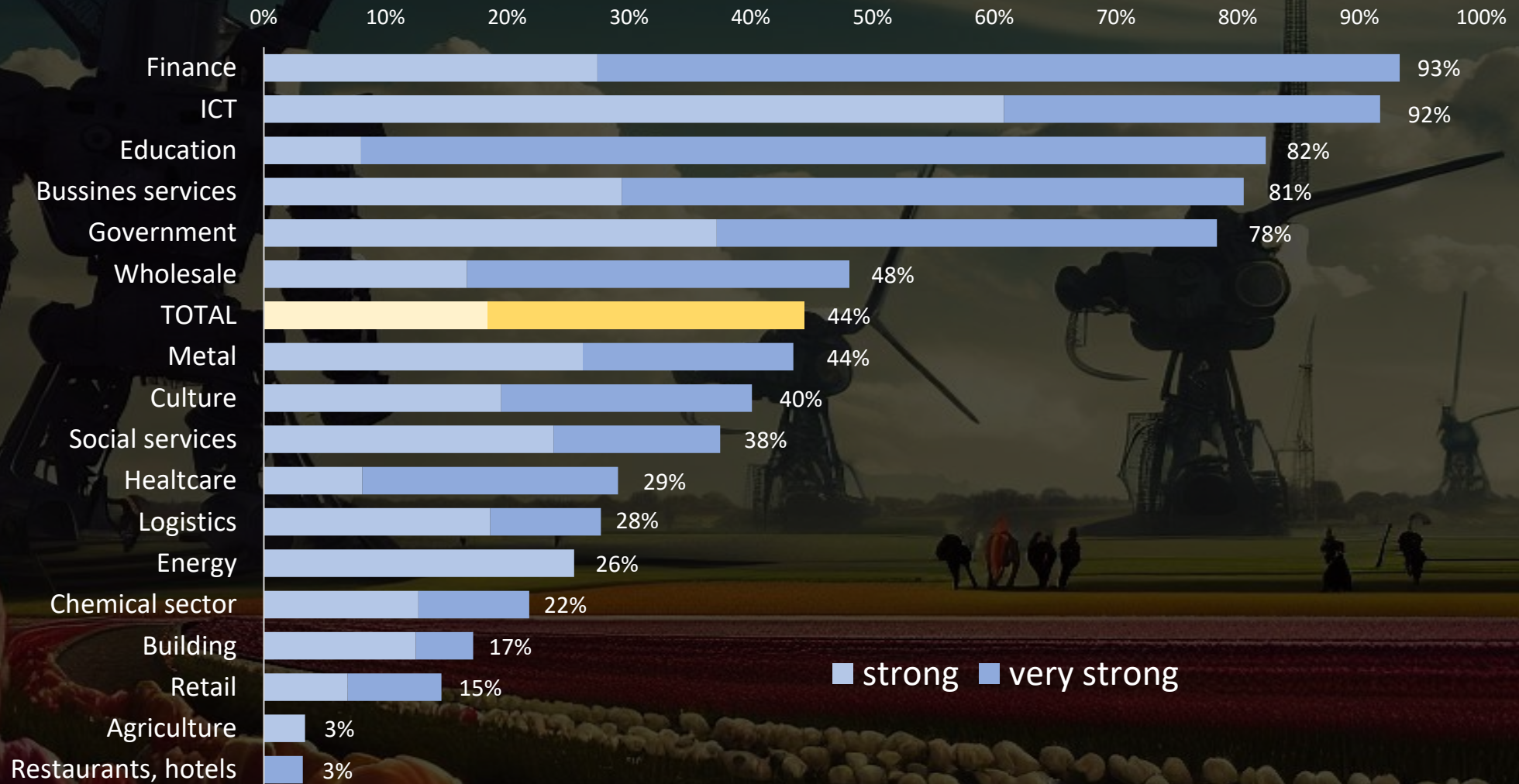
As of July 2023

macroeconomic effects.

- If generative AI delivers on its promised capabilities, the labor market could face significant disruption. Using data on occupational tasks in both the US and Europe, we find that roughly **two-thirds of current jobs are exposed** to some degree of AI automation, and that generative AI could substitute up to one-fourth of current work. Extrapolating our estimates globally suggests that generative AI could expose the **equivalent of 300mn full-time jobs** to automation.

WORK WILL CHANGE

% jobs exposed to AI, Netherlands (PwC, 2023)



BUT DOES IT WORK...?

GENERATIVE AI AT WORK

Erik Brynjolfsson
Danielle Li
Lindsey R. Raymond

Working Paper 31161
<http://www.nber.org/papers/w31161>

NATIONAL BUREAU OF ECONOMIC RESEARCH

1050 Massachusetts Avenue
Cambridge, MA 02138
April 2023, Revised October 2023

- 5,179 customer support agents at a **call-centrum**
- Real time **suggestions** from ChatGPT (OpenAI)
- 14% **higher productivity** (= number of issues resolved)
- 35% improvement for **novice** and **low-skilled** workers
- But minimal impact on **experienced** and **highly skilled** workers
- Learning: improved productivity even when ChatGPT is **offline**
- Callers are **less aggressive**
- Improved employee **retention**

Navigating the Jagged Technological Frontier: Field Experimental Evidence of the Effects of AI on Knowledge Worker Productivity and Quality*

Fabrizio Dell'Acqua¹, Edward McFowland III¹, Ethan Mollick², Hila Lifshitz-Assaf^{1,3}, Katherine C. Kellogg⁴, Saran Rajendran⁵, Lisa Krayer⁵, François Candelon⁵, and Karim R. Lakhani¹

¹Digital Data Design Institute, Harvard Business School; ²The Wharton School, University of Pennsylvania; ³Warwick Business School, Artificial Intelligence Innovation Network; ⁴MIT Sloan School of Management;

⁵Boston Consulting Group, Henderson Institute

September 22, 2023

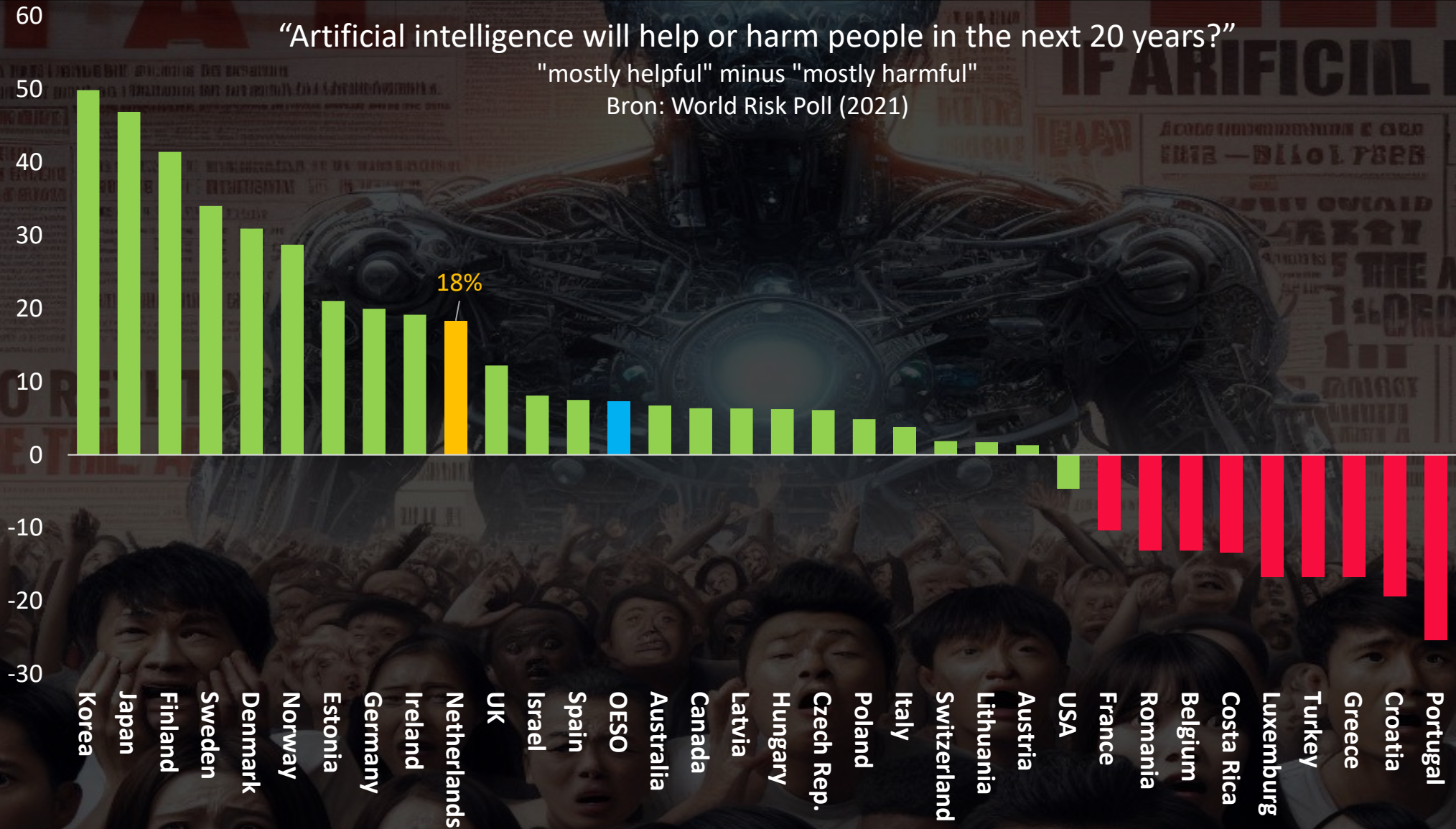
- 785 consultants **Boston Consultancy Group**
- 18 **realistic** consulting tasks (within frontier of AI capabilities)
- With GPT4: completed **12%** more tasks, **25%** more quickly
- Quality results **more than 40%** higher than control group
- Below average consultants: **43%** increase compared to own score.
Above average consultante: only **17%** increase
- Tasks outside frontier GenAI: **19% worse** results than control group

DUTCH STILL POSITIVE ABOUT AI

“Artificial intelligence will help or harm people in the next 20 years?”

“mostly helpful” minus “mostly harmful”

Bron: World Risk Poll (2021)

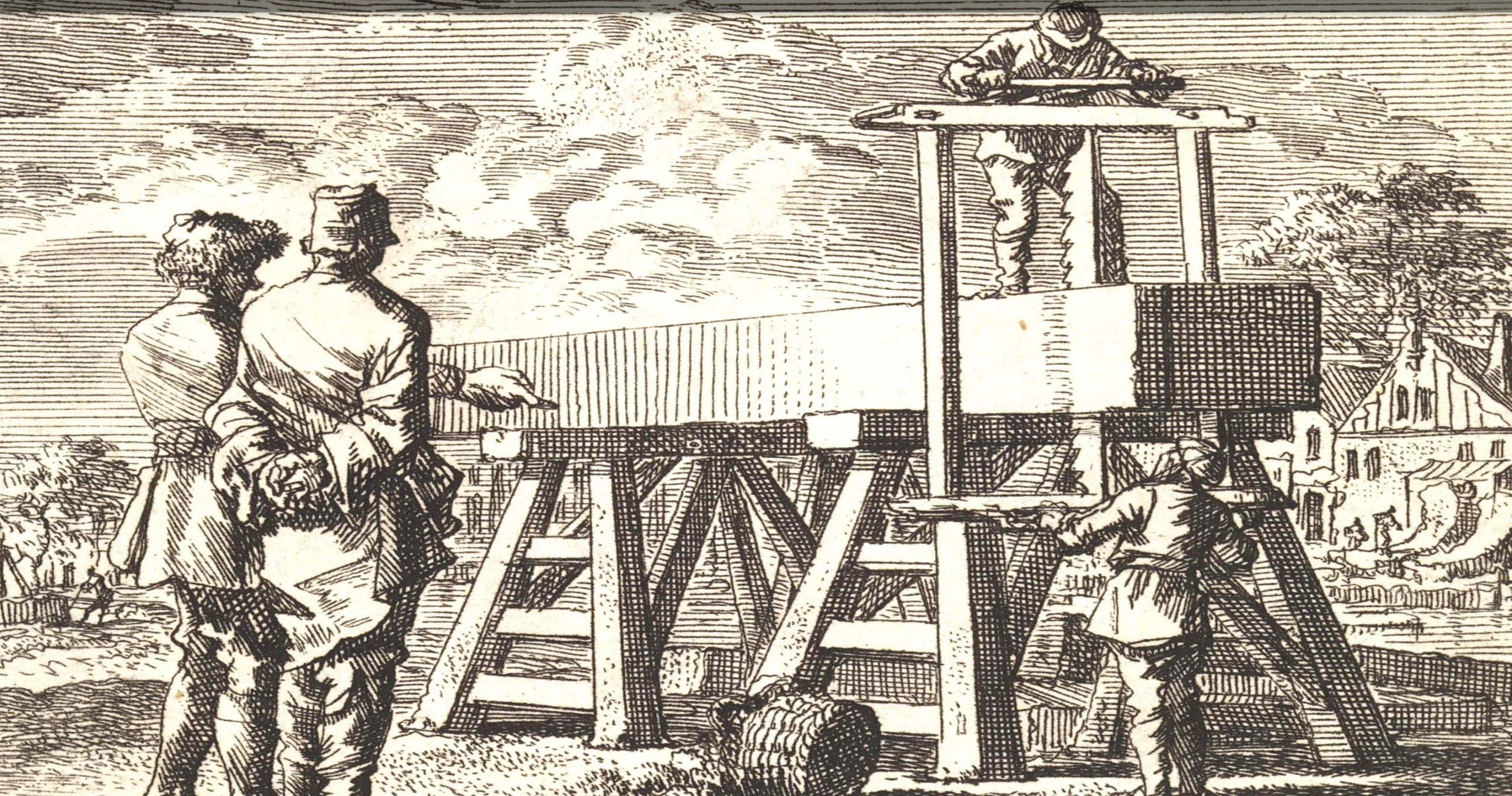


ANGST IS SLECHTE RAADGEVER: ROBOTS

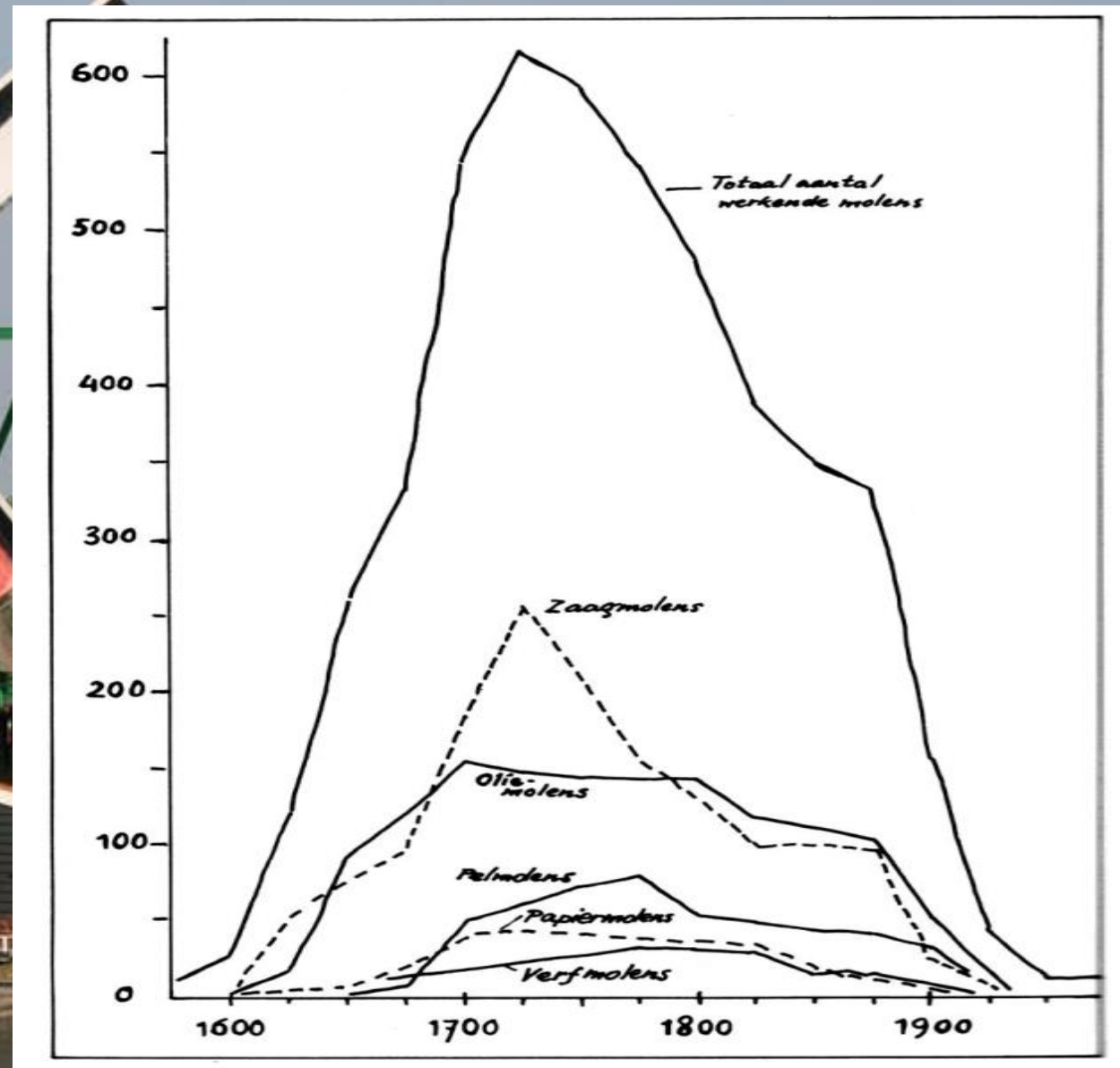
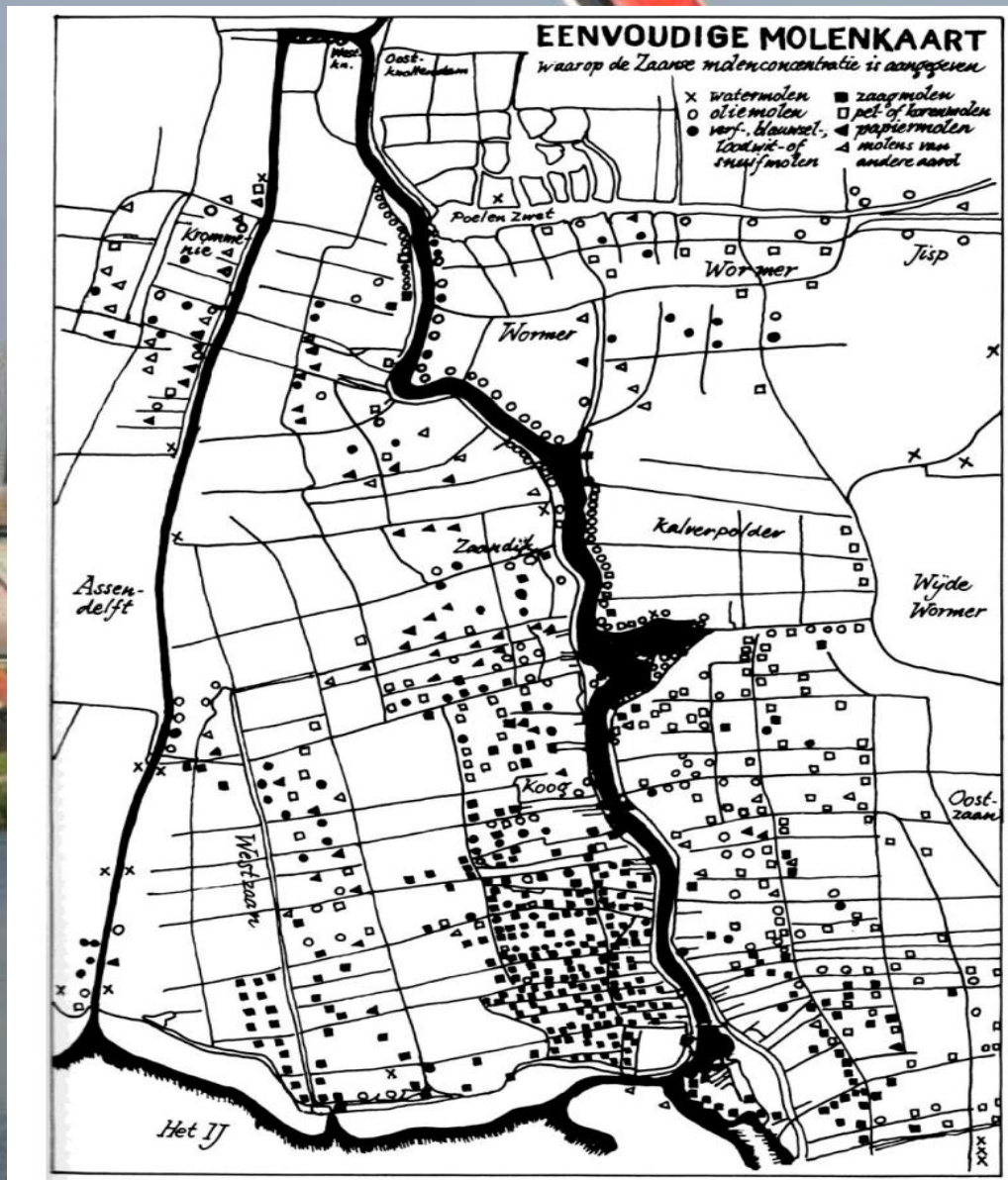




THE AMSTERDAM HANDSAWYERS GUILD



INDUSTRIAL REVOLUTION MOVED TO ZAANDAM





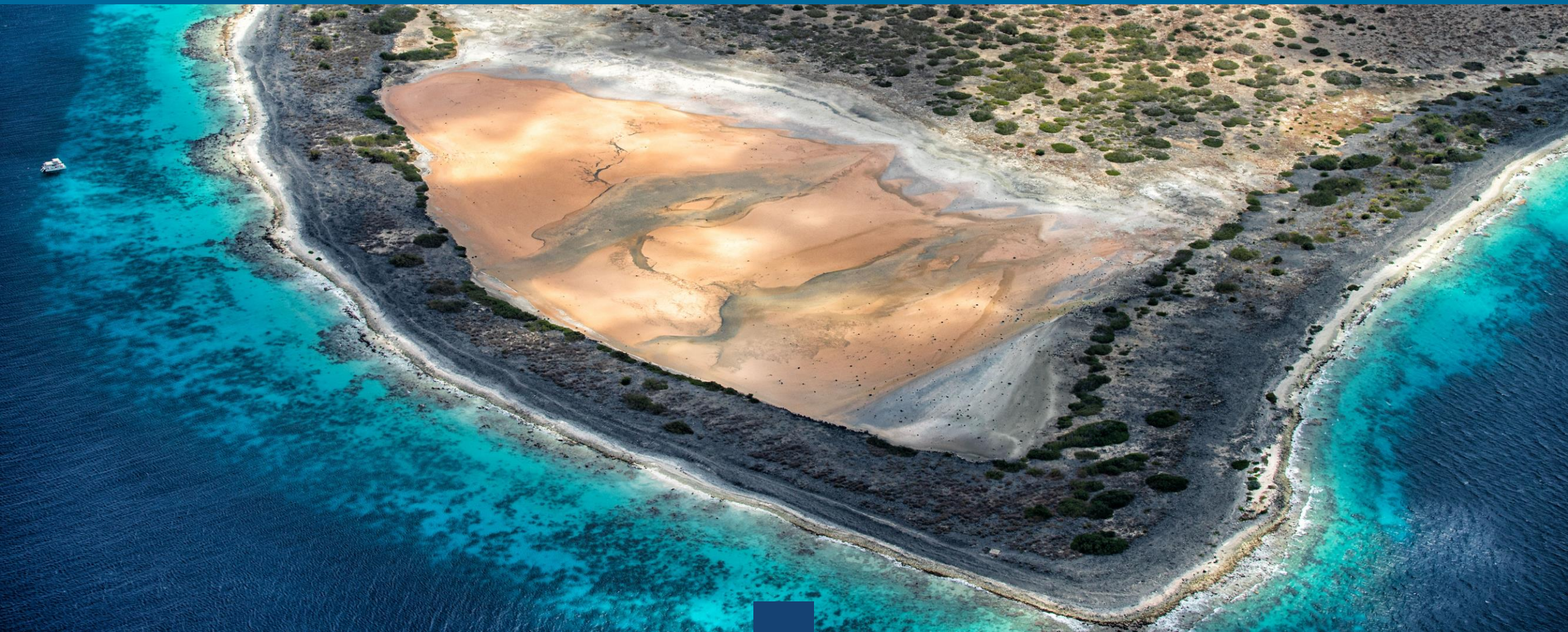


Q&A



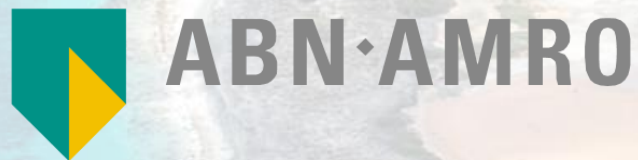


Primary Dealer selection & Awards





Primary Dealers for 2024



Jefferies

J.P.Morgan



NOMURA

Nordea

Rabobank





Advisors 2024



ABN·AMRO



Goldman
Sachs

citigroup 

Jefferies

HSBC 





DSTA Dutch Treasury Certificate Award

DTC Market



ABN·AMRO



DSTA Dutch State Loan Award

DSL Market



ABN·AMRO





Closing remarks by Christiaan Rebergen, Treasurer-General



Dutch State Treasury Agency
Ministry of Finance

Outlook 2024

Thank you for joining us today

Read the publication at English.DSTA.nl