

2nd International Urban Mobility Dialogue Investments in Urban Mobility Infrastructure



Dr. Manfred Kupka, BRICS Real Estate Advisors
manfred.kupka@bricsrealestate.com

Investments in Urban Mobility Infrastructure

Who are the Investors?

TOP 75 INFRASTRUCTURE INVESTMENT MANAGERS

The 75 largest infrastructure investment managers, led by Macquarie Infrastructure and Real Assets and Brookfield (URL=<https://hub.ipe.com/brookfield-asset-management-real-estate-homepage/415467.supplier>) Asset Management, manage more than €861bn in assets. See below for top 10 breakdowns

	Company	Infrastructure AUM (€m)	Total AUM (€m)	As at
1	Macquarie Infrastructure & Real Assets (MIRA)	107,691	119,852	31/12/18
2	Brookfield Asset Management	99,234	309,300	31/12/18
3	M&G (URL= https://hub.ipe.com/mg-investments/415192.supplier) Investments/Infracapital	51,000	295,421	31/12/18
4	Global Infrastructure Partners	50,285	50,285	31/12/18
5	IFM Investors	37,629	72,092	31/12/18
6	Allianz Global Investors	29,310	505,000	31/03/19
7	The Carlyle Group	24,066	197,879	31/03/19
8	BlackRock	20,539	5,331,072	31/12/18
9	EIG Global Energy Partners	19,955	19,955	31/03/19
10	AMP Capital	18,550	128,431	31/03/19

Top 10 infrastructure investors

Investor	Infra (\$bn)	Total assets (\$bn)
1 Allianz	27.7	770
2 Canada Pension Plan Investment Board	24.9	293
3 National Pension Service	20.5	575
4 Caisse de dépôt et placement du Québec	16.6	227
5 OMERS	15.2	73.5
6 APG	13.9	557
7 Ontario Teachers' Pension Plan	13.1	152
8 PGGM	12.7	241
9 PSP Investments	12.6	126
10 Legal & General	11.8	625

Source: IPE Research

Behind institutional investors are typically “people like you and me”, retired persons, life policy holders.

Investment Case Private Investors

Mega population growth, mainly in emerging markets, will increase the number of megacities to 41 in 2030. Megacities need to be smart.

Intelligent urban mobility makes cities clean, liveable and smart.

Private investments need 2 different „investor mentalities“:

- ✓ Opportunistic exit return investor for construction/development: Takes high risk, has limited investment horizon (10-15 years max).
- ✓ Stable income investor for operation: Long term, current income returns. ESG compliance for pension funds facilitates infrastructure investments.

Preliminary questions:

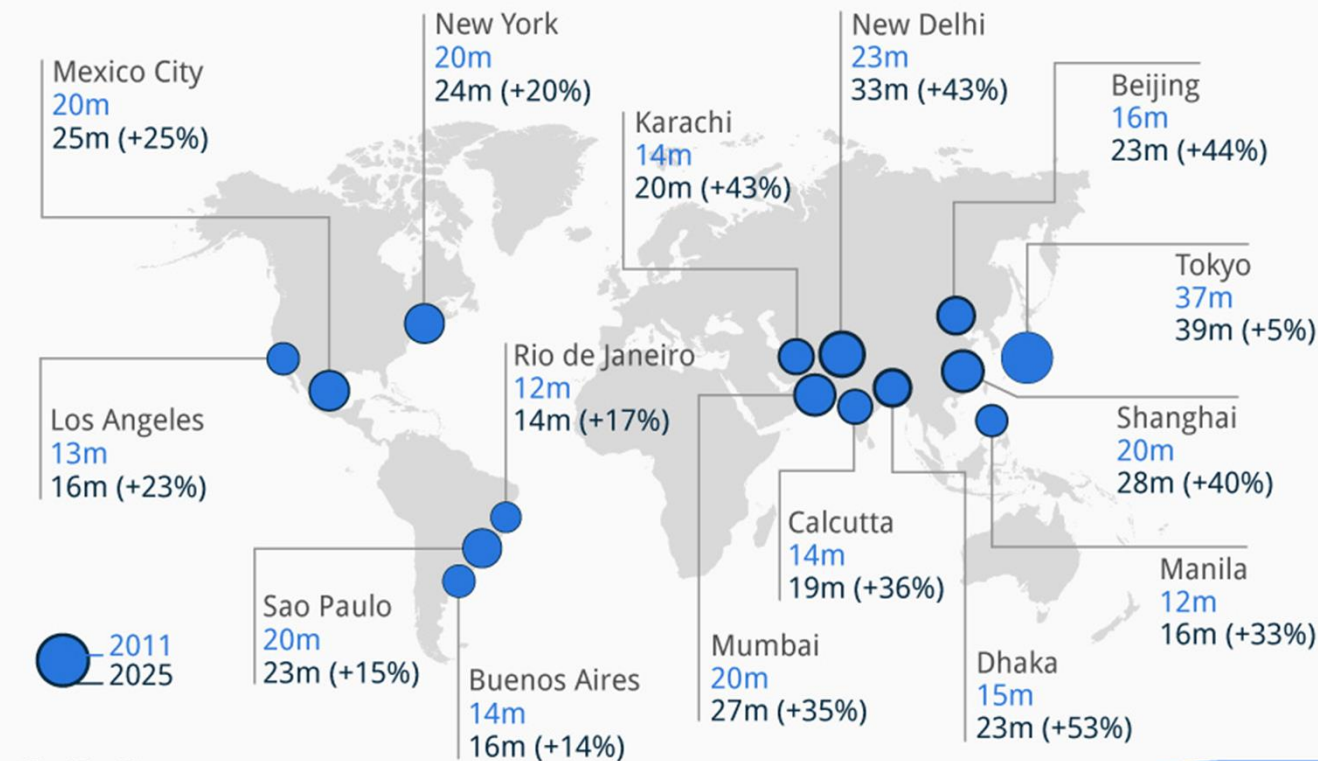
- ? Specific need for private investor, or are public subsidies, development loans for this specific project available?
- ? Government prepared for concessions to risk-adjusted return investments?

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Megacities need to be smart

The World's Megacities Are Set for Major Growth

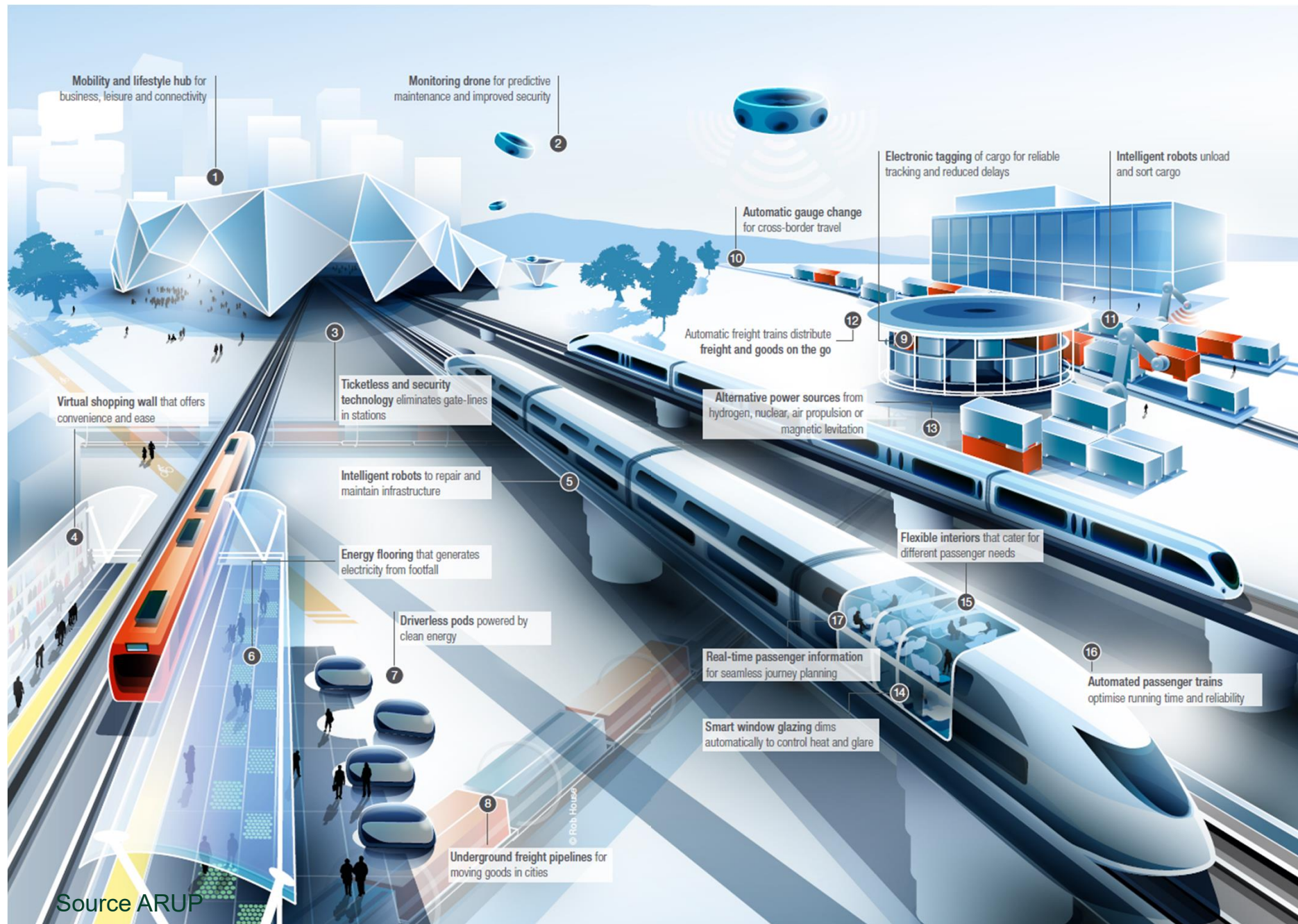
Population growth of the world's top 15 megacities (millions, 2011-2025)



Investments in Urban Mobility Infrastructure: Used to be ...

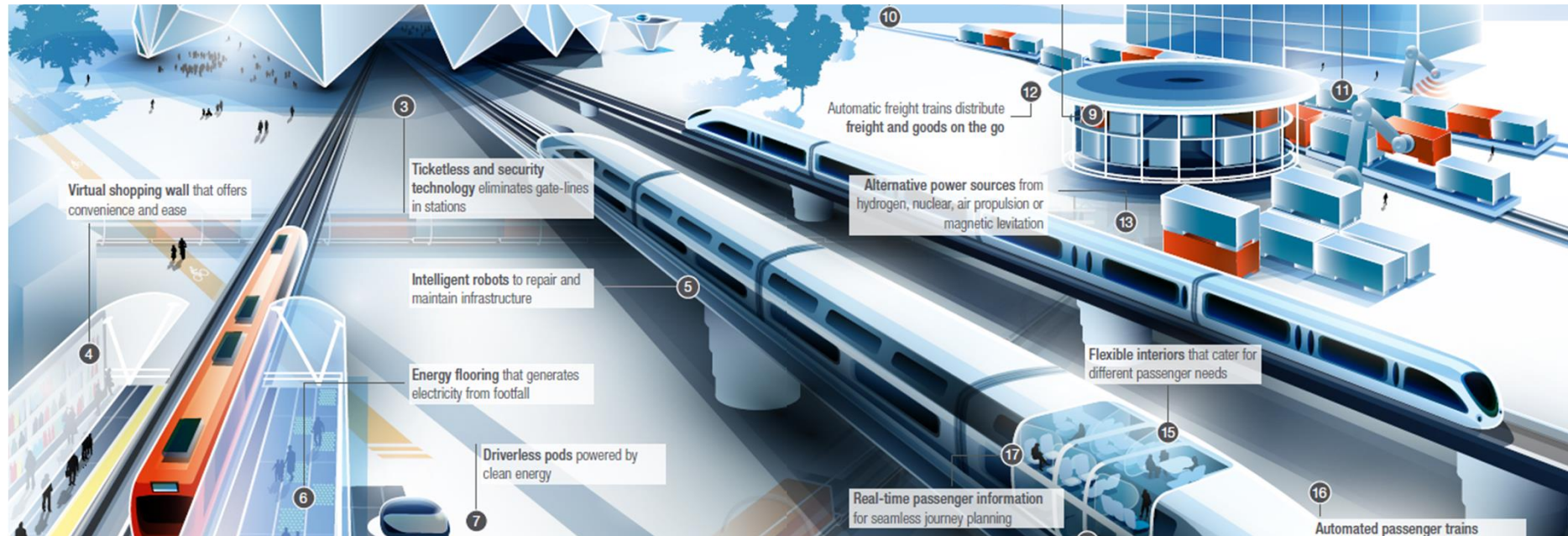


Investments in Urban Mobility Infrastructure: Future Rail: Needs to come ...



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PPP „Future Rail“ Construction and Operation



Time →

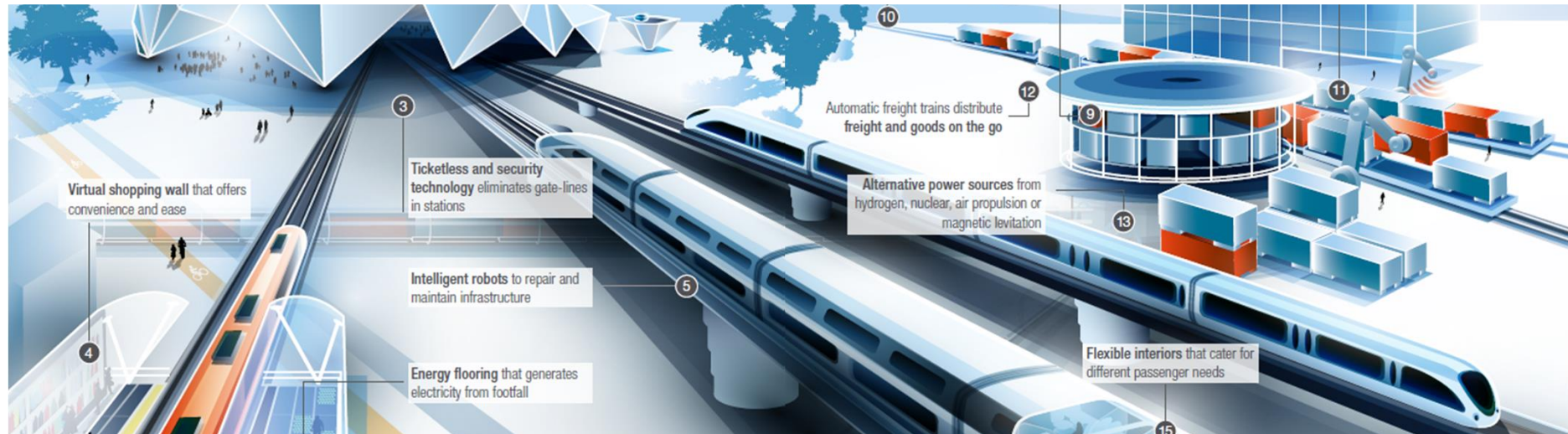
Negotiation Concession Government
“Risk Adjusted Returns“ Private Investment

Construction = Investment

Operation = Cash Flow Generation

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Operation: Stabilizing Cash Flow & Exit



Time →

Construction = Investment

Operation = Cash Flow Generation

Stabilizing

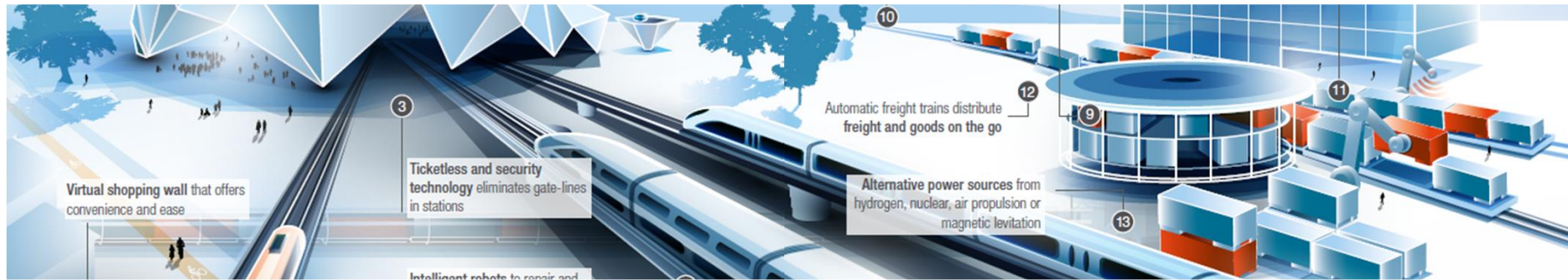
Stabilized Cash Flow

Negative Cash Flow

Positive Cash Flow

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2 Investor Mentalities: Development vs Asset Management



Time →

Opportunistic Investor
Private Equity Fund

Limited Term
Project Development

Current Income Investor
Pensionsfund

Long-term
Asset Management

Construction

Operation: Positive Cash Flow

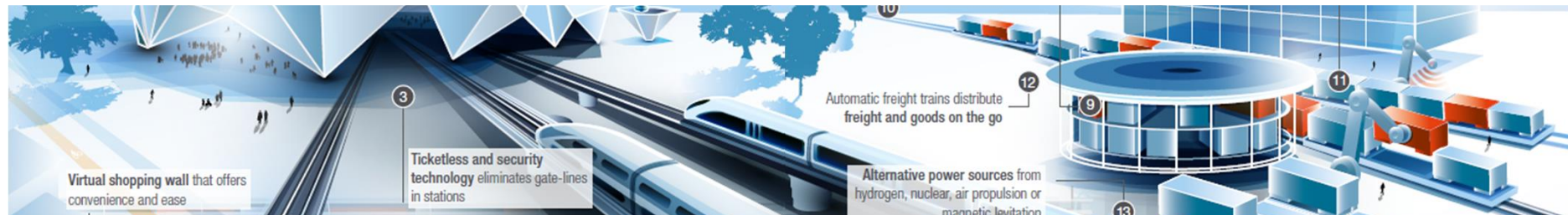
Negative Cash Flow

Stabilizing

Stabilized Cash Flow

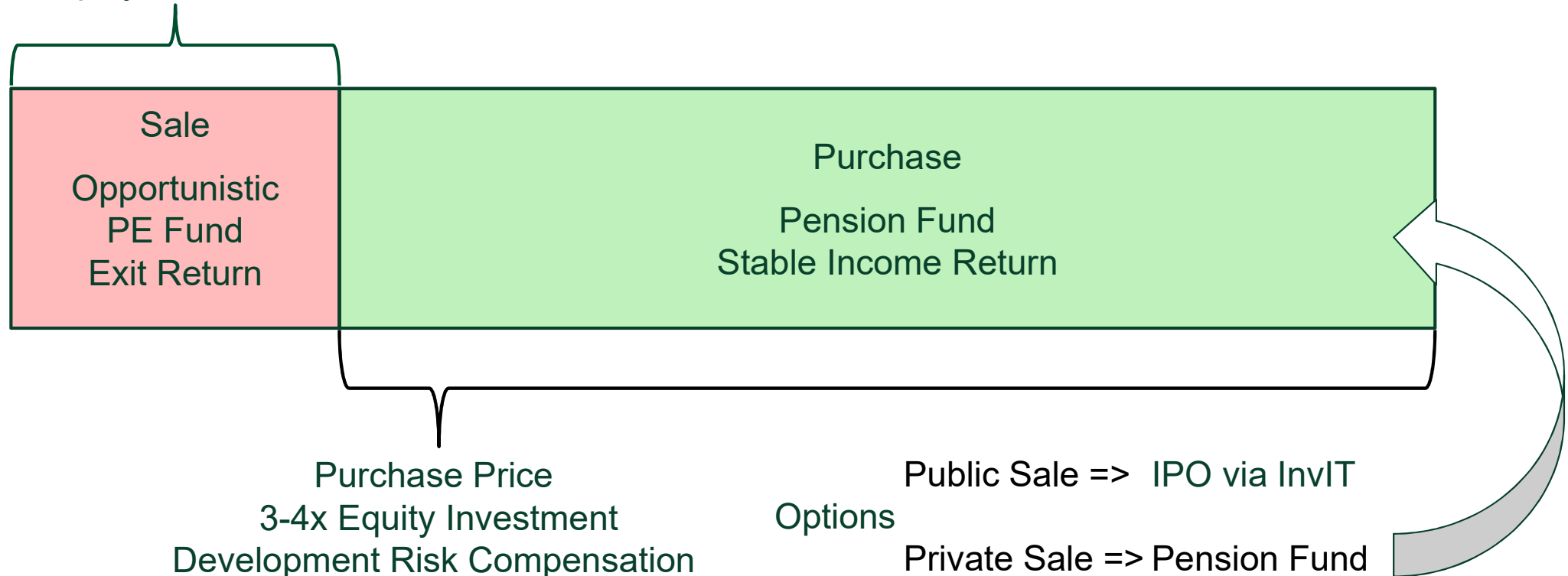
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Exit Opportunistic Investor



Time →

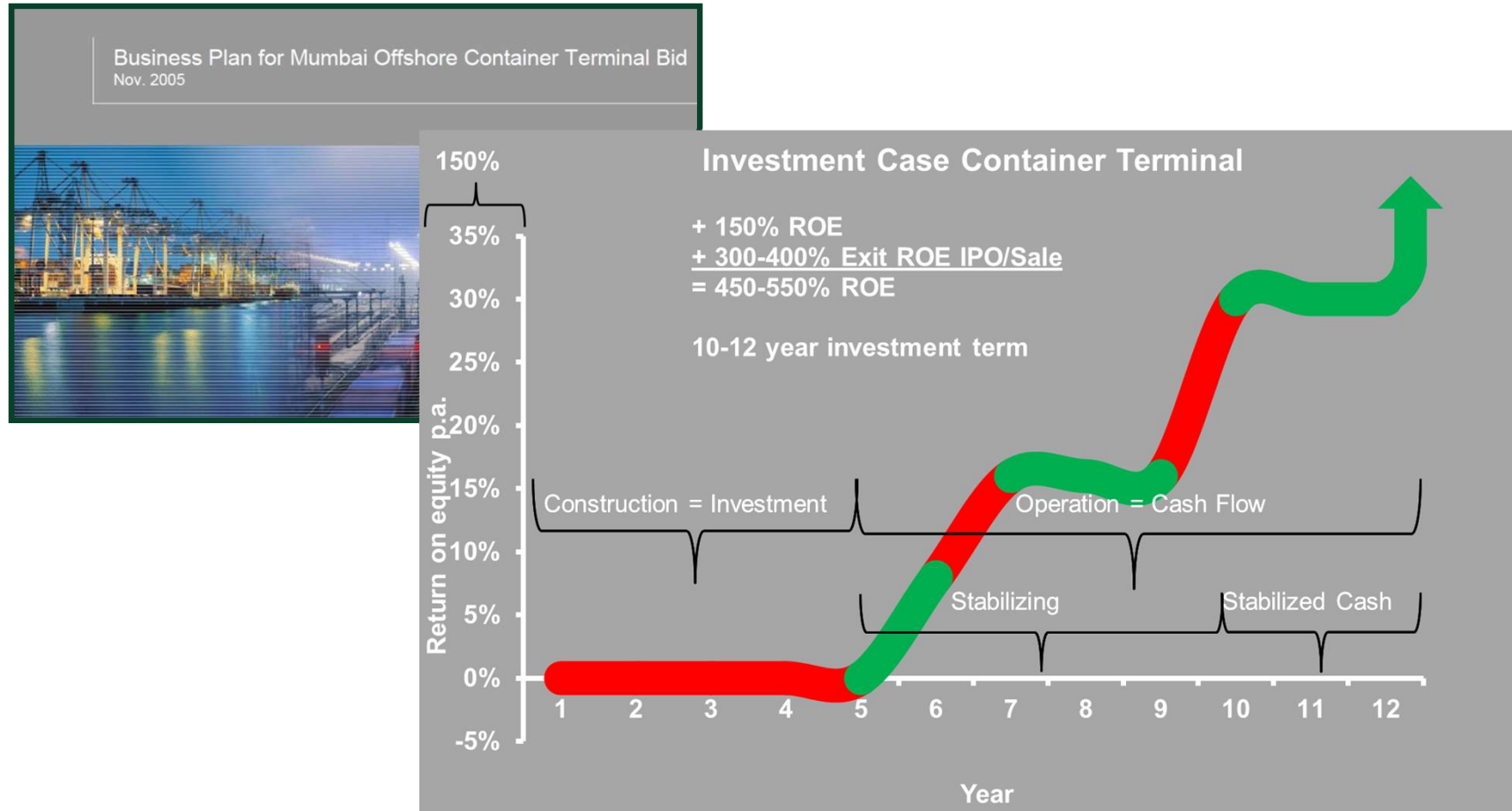
1x Equity Investment 10-12 Years



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Risk Project Realisation

Expansion of Mumbai container terminal: 100,000 TEU => 1 million TEU.



Opportunistic investment, 4,5-5,5x return on equity (ROE) after 10-12 years projected.

Private individuals \$10,000+ investment. Exit options: private sale, port IPO, increase debt 23 bidders, project cancelled after 1 year. Loss of due diligence- and pre-marketing costs.

Investments in Urban Mobility Infrastructure: Risk Government Funding

„Rapid Metro Line“ Gurgaon-Delhi, India. Siemens Turnkey Project



Public Private Partnership. Government Funding 50% canceled.
100% funding by Private Equity Fund necessary (IL&FS).

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