

AIRBUS

Qualitative consumer research



Motivation

What are current mobility **pain points**?
How do people **trade mobility** aspects?



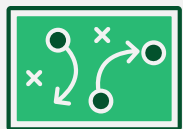
Idea

Is there a **need** for urban air mobility?
What are the best **use cases**?



Practice

How could **service delivery & pricing** look like?
What are the **vehicle requirements**?



Positioning

Who could be the ideal **provider**?
What is be the **positioning**?



Outlook

What are **levers to push market development**?

Going 'deep' with target customers in three regions

In depth analysis ...

- 4 hour deep dive workshops
- Focus on peoples' emotions
- Approach: Research & consulting



... with target customers ...

- High income
- Senior professionals
- High spend for business travel



Motivations & needs



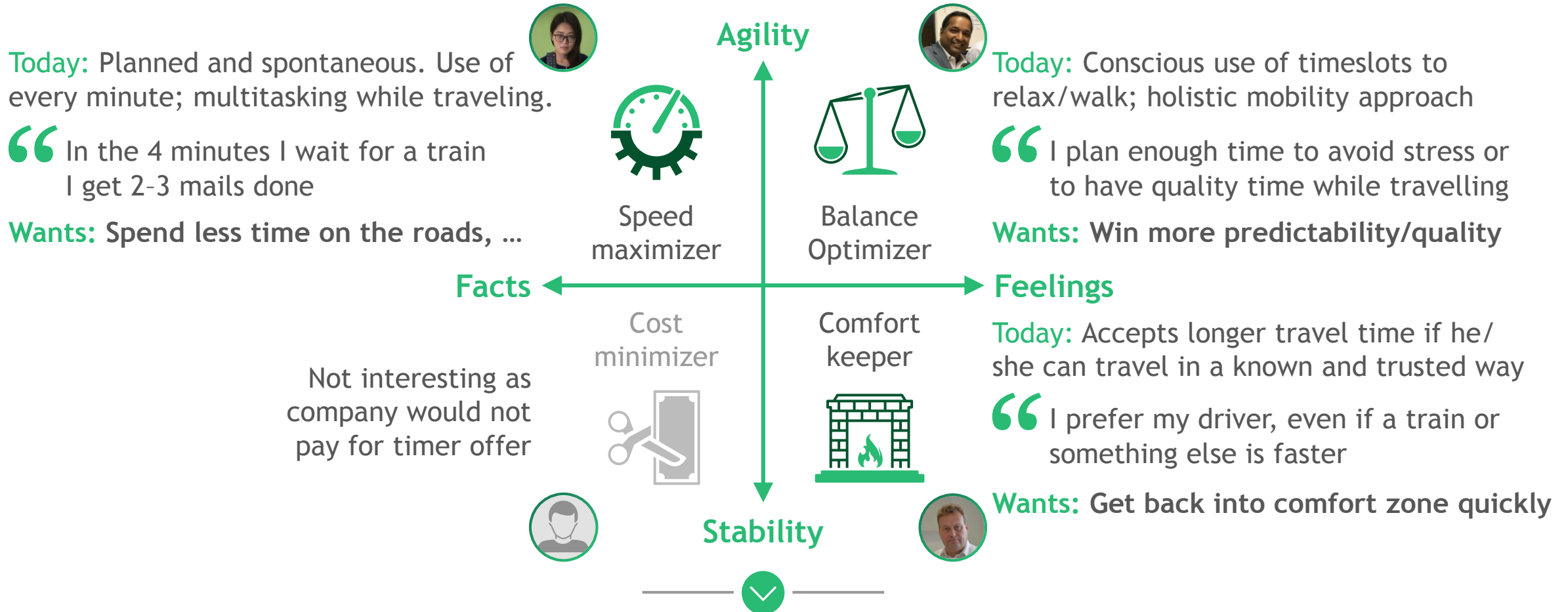
- 3 focus groups
- 3 countries (US, Germany, China)
- 3 towns (NY, Frankfurt, Shanghai)

... in three regions



Objective: discover motivational needs and levers for Urban Air Mobility

Different archetypes see different air mobility advantages



Understanding psychological predisposition will be key to tailoring the UAM offer



“This sounds
like a revolution
in mobility!”

UAM scenario with very positive spontaneous feedback

Very good grades ...



Ø = 1,5



Ø = 1,7



Ø = 1,5

... with clear advantages ...

- Reduced travel time & higher predictability
- Easily accessible with individual destination choice
- Secure (“redundant”) technology & friendly to environment

... and questions instead of concerns

“50km reach sounds good. When will it be 100km?”

“Are 6-8 hubs per city really enough to reach it in max. 10 minutes?”

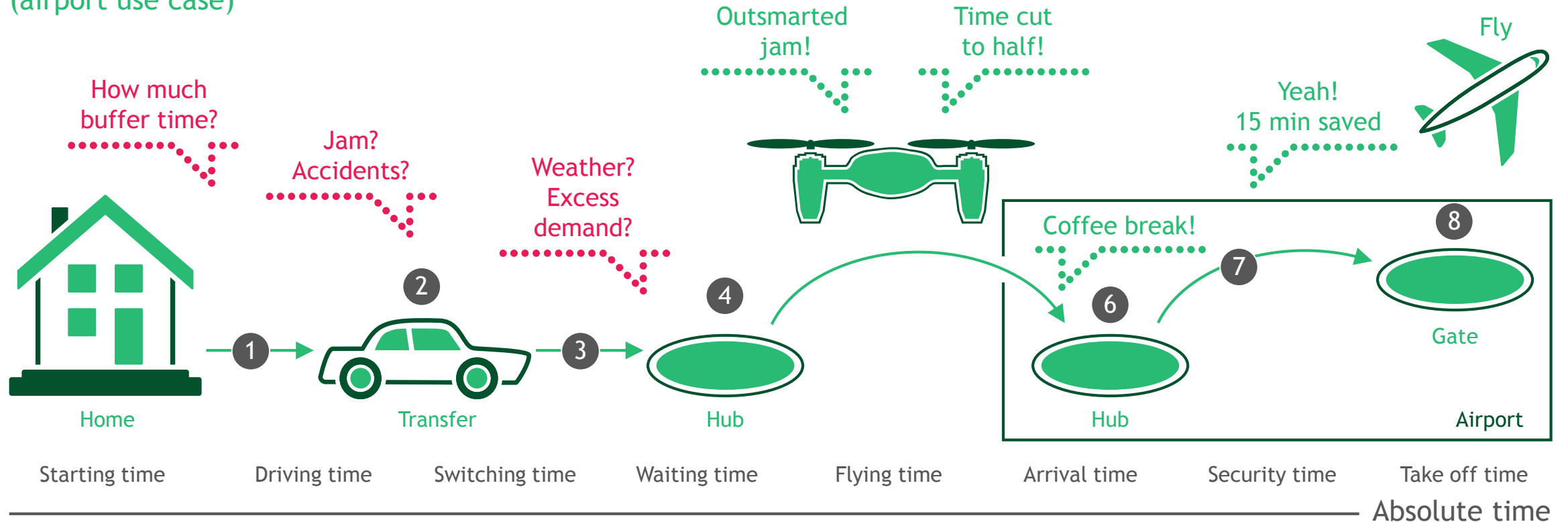
“How will I reach the hub? Where can I leave my car? Can I pre-book?”



The question is not “do I want it?” but “when will can I get it?”

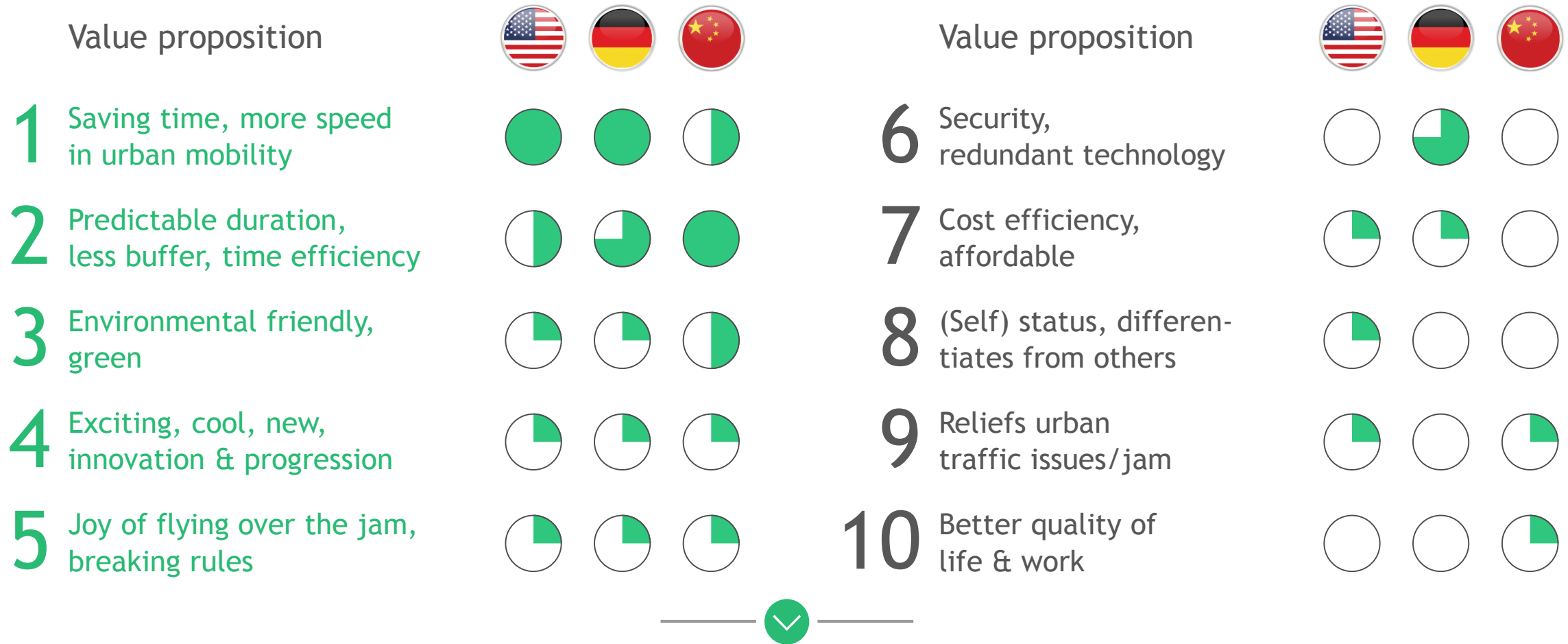
The more unpredictability is taken out of the E2E journey, the more attractive

Relative time
(airport use case)



Promises on saving „absolute“ or winning „relative“ time are very attractive!

„Green“ also helps positioning



But there are also highly emotional benefits that should be addressed too.

Rating:  80-100%  50-70%  30-50%  10-30%  0%

Draft

Many UAM use cases; airport travel is №1

The golden hour principle:

“Cutting one hour of travel time by half is convincing!”



USE CASE

Airport transfer

End-to-end city transfer

Reach offsite destinations

Daily commuting to work

Impress business partners

Enjoy full weekend

Private events & going out

Drive kids to school

Impact

Business

Private

Importance

Relevance

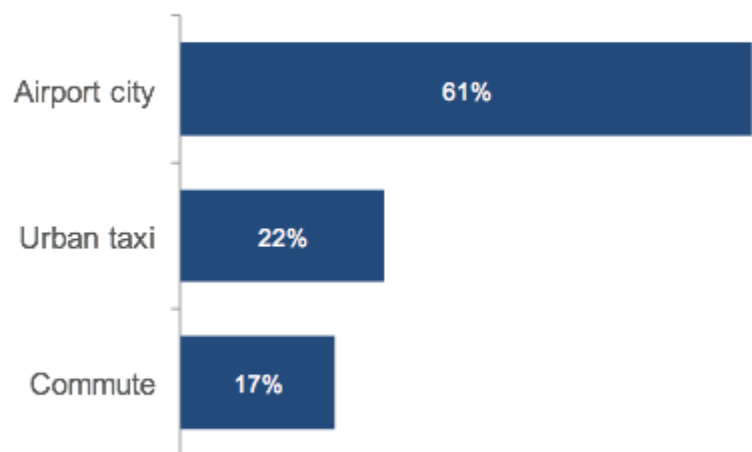


Top use cases have high business impact and are not daily.

In NYC airport transfers could be more than half the trips based on today's mobility patterns

Breakdown of uses cases included in scenarios

% Pax split for New York (example, each city with different profile)



Further upside through excluded use cases



Tourism/Leisure



Simple police/emergency missions



Reach factories outside cities



Luxury / VIP

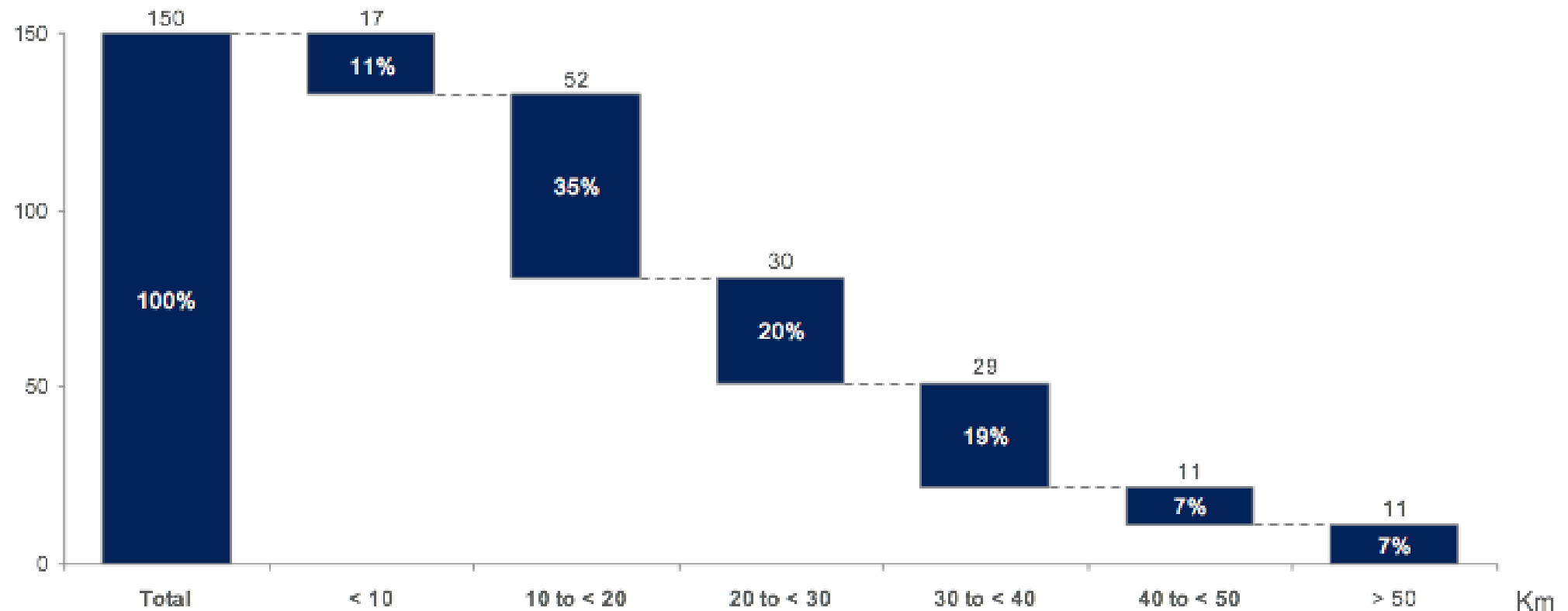


Cargo

>80% of world's airports within 40km range, >90% within 50km range (22-27nm)




Distribution of top WW airports by distance from nearest big city center

Top 150 WW
airports by PAX



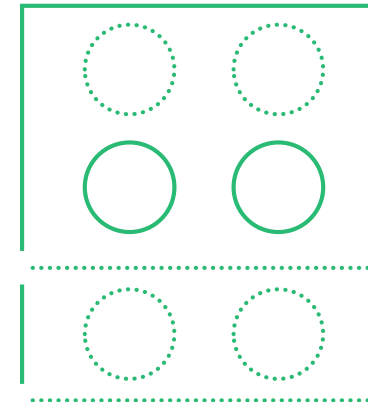
Pricing and seat logic implies business potential of UAM

Benchmark for pricing logic: Taxi

	 1h ≈ 100 €	 1h ≈ 75 \$	 1h ≈ 160 ¥
Good price	x 2	x 2	x 6
O.k. price	x 3	x 3	x 10
Too cheap	< 1	< 1	< 3
Realistic	x 2	x 2,5	x 7

Timing assumption: Cut 1 travel hour in 1/2

Benchmark for seat logic: Car



2 pax sharing is considered appropriate in the beginning

4 pax sharing could be the future standard

4 pax sharing is acceptable

6 pax and more results in lacking credibility re:

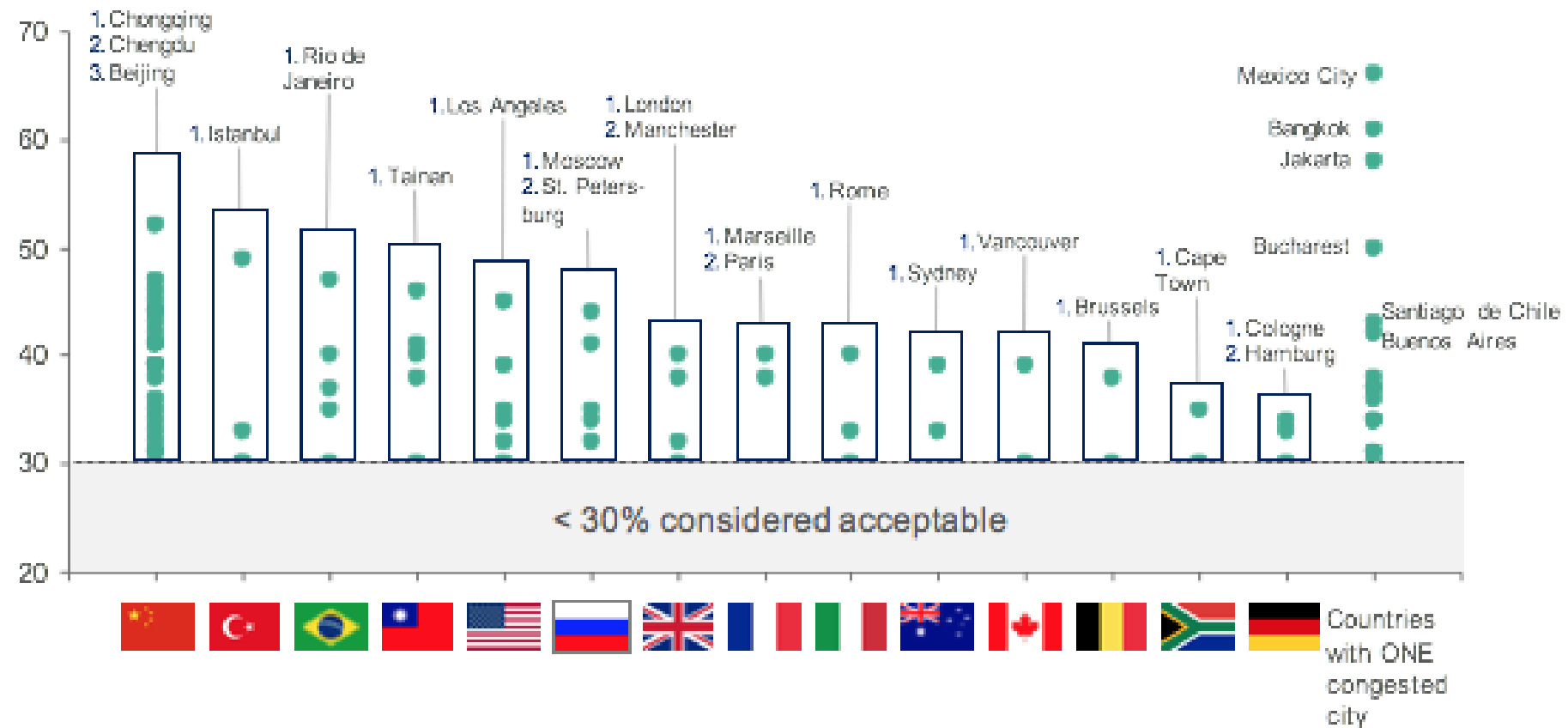
- Exclusiveness
- Speed
- Simplicity

































With a time reduction of 50%, taxi prices of x2-2.5 in USA / GER and x6 in China are accepted

Highest potential in China, Brazil and the US

Congestion index in % (e.g., a congestion level of 50% corresponds to 50% extra travel time for any trip in the city)



Aircraft manufacturer are seen as best UAM providers for safety reasons

Rank	Provider			
#1	Traditional aircraft manufacturers (e.g. Boeing, Bell, Airbus)			
#2	Internet/software players (e.g. Google, Apple)			
#3	Ride sharing companies (e.g. UBER, Lyft, Didi)			
#4	Modern eCar manufacturers (Tesla, BYD)			
#5	Specialized startups (e.g. Liliium)			
#6	Airline or railway (e.g. Lufthansa, DB)			
#7	Classical car manufacturers (Mercedes, BMW, GM)			
#8	Local helicopter companies			
#9	Big IT companies (Microsoft, IBM)			
#10	Logistic gurus (amazon)			
#11	Big Tech companies (Siemens, GE)			
#12	Other providers of urban mobility (taxi companies, etc.)			



Three “felt logical” options: Mechanical security. Intelligent autonomy. Operator experience.

Naming: “Air Taxi” is what it should be called

✓ Dos

Understandable

Simple & sympathetic

Business as usual with trusted sound

Innovating something already existing



Don'ts ✗

Too high end & “felt” expensive

Too close to helicopter and drone

Too “creative” and “Sci-Fi”

Military associations

Other suggestions: Sky Taxi, E-Wings, My Carpet, Sky mobile, E-Jet, Passenger drone, Air limousine



The first offer in the market will determine the whole category

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