## Is there money to be made in Urban Air Mobility (UAM)?

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CONTACT: Clive Lewis Managing Partner Achieving the Difference LLP Market Workstream lead, ADS UAM Group

e: <u>clive@thedifference.co.uk</u> t: +44 (0) 1242 42 1000 achieving<sup>the</sup>difference

## summary

- market potential is large
- risk actual value and timing are uncertain
- a broad value chain presents varying opportunity for reward

# achievingthedifference

# intro to ADS and UAM Group

# • ADS

- UK trade organisation representing aerospace, defence, security and space sectors
- Farnborough International Limited subsidiary runs Farnborough Airshow

# • UAM Group

- UK stakeholders with shared interest in readiness for the emerging global market
- market opportunities, barriers and constraints and collaboration
- over 60 organisations established aerospace businesses, start-ups, SME 'primes', academia, associations, funding bodies, government, government agencies



Working for our members

# what the ADS UAM Group Market Workstream has done

## • considered

- market viability
- barriers
- constraints
- enablers

# derived from

- background material
- expert opinions of a subset of ADS Urban Air Mobility Group members

# • delivered

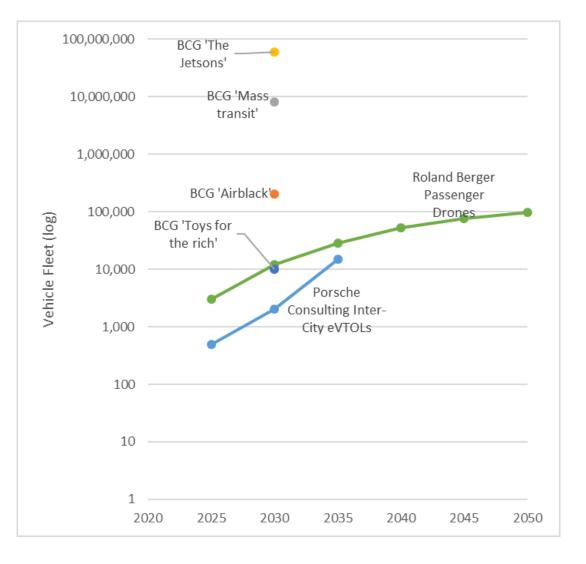
- deliberately speculative in its findings and conclusions
- consensus, engineering-based and business-driven precis of the credible UAM market and landscape reports published to date



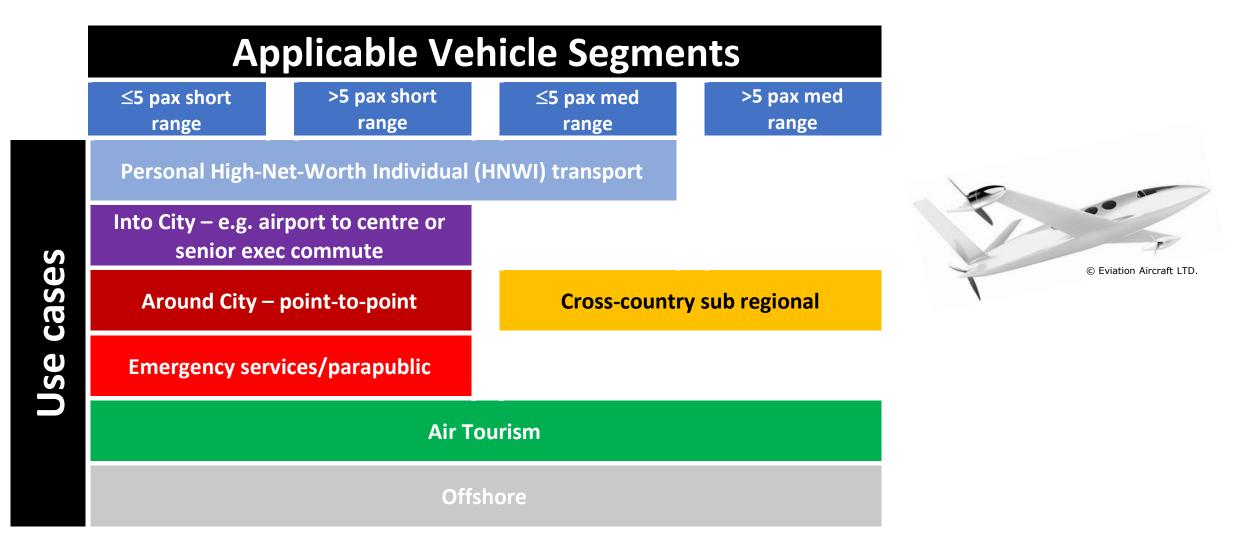
# public market forecasts

- wide variance in scale but seen as large
- variance in timing shown to be generally optimistic
- no consensus on segmentation





# achieving<sup>the</sup>difference ADS UAM Group Market Workstream view of segmentation



### challenge of constraints ADS UAM Group Market Workstream

personal HNWI transport

|                            | 5-10 years<br>existing models/infrastructure incl. disruptive bus models/technologies |
|----------------------------|---|
| cross-country sub regional | Business economics  |
|                            | Infrastructure  |
|                            | Daily /seasonal demand pattern  |
|                            | Weather impact  |
|                            | Technology  |
|                            | Security  |
| ≥                          | Legislation & regulation  |
| Ĕ                          | Social acceptance   |
| 5                          | ATM   |
| Š                          | Competition   |
| SO                         | Environmental impact  |
| 5                          | Manufacturing   |
|                            |   |

| into-city | Business economics             |
|-----------|--------------------------------|
|           | Infrastructure                 |
|           | Daily /seasonal demand pattern |
|           | Weather impact                 |
|           | Technology                     |
|           | Security                       |
|           | Legislation & regulation       |
|           | Social acceptance              |
|           | АТМ                            |
|           | Competition                    |
|           | Environmental impact           |
|           | Manufacturing                  |

|             | 5-10 years<br>existing models/infrastructure incl. disruptive bus models/technologies |
|-------------|---|
|             | Business economics  |
|             | Infrastructure  |
|             | Daily /seasonal demand pattern  |
|             | Weather impact  |
|             | Technology  |
| Ę           | Security  |
| <b>.</b> .  | Legislation & regulation  |
| around city | Social acceptance   |
| 0           | ATM   |
| ц<br>а      | Competition   |
|             | Environmental impact  |
|             | Manufacturing   |

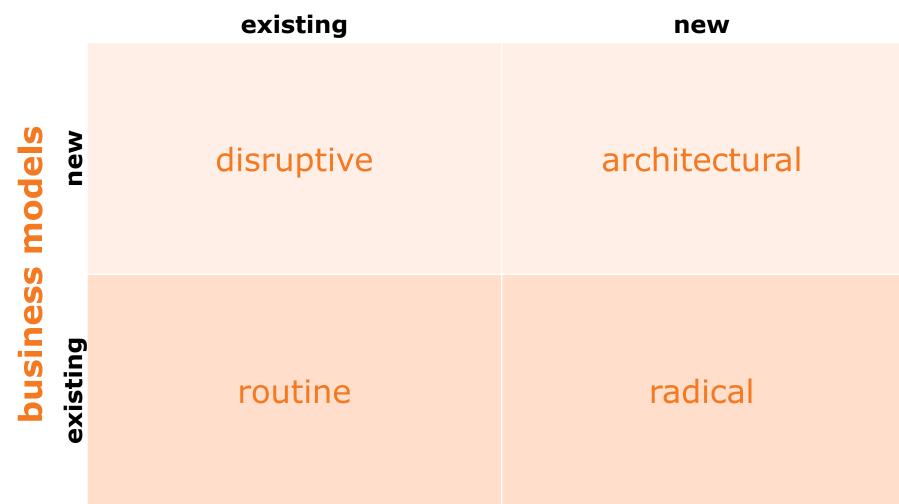
| Business economics             |  |
|--------------------------------|--|
| Infrastructure                 |  |
| Daily /seasonal demand pattern |  |
| Weather impact                 |  |
| Technology                     |  |
| Security                       |  |
| Legislation & regulation       |  |
| Social acceptance              |  |
| ATM                            |  |
| Competition                    |  |
| Environmental impact           |  |
| Manufacturing                  |  |

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## innovation landscape

## technical competences

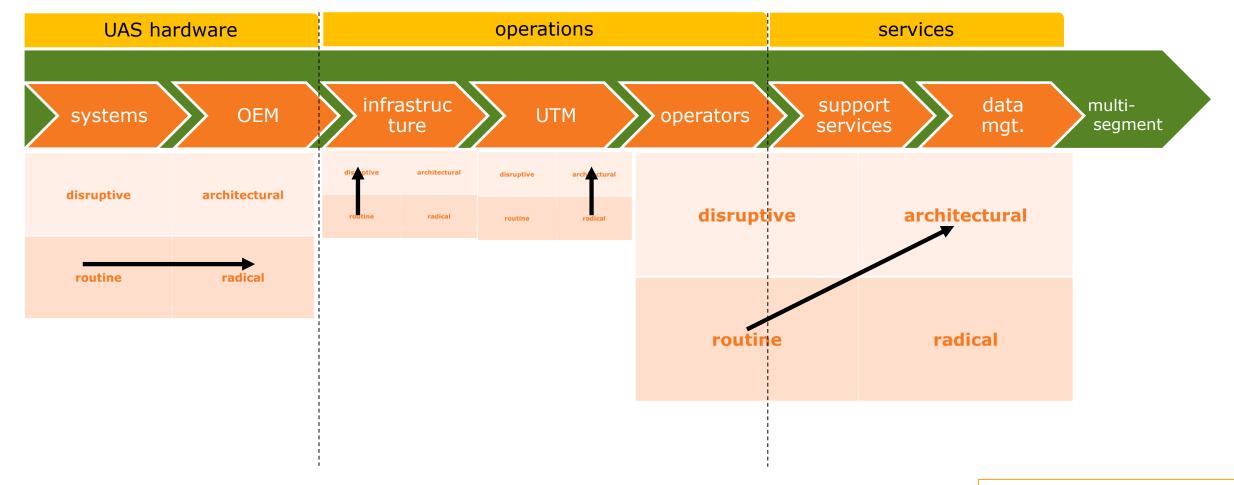


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Source: CORNING; PISANO, G. P.,, "You need an Innovation Strategy", HBR, June 2015

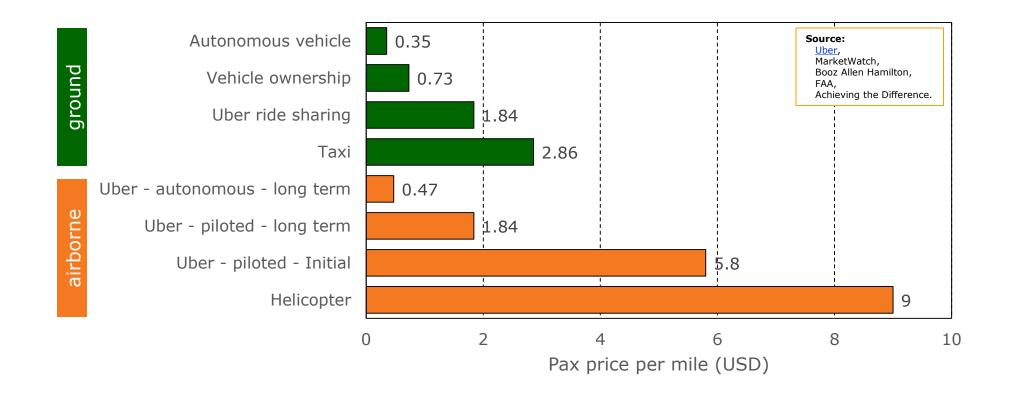
www.thedifference.co.uk

# achieving<sup>the</sup>difference UAM value chain & innovation landscape development over time



Source: McKinsey, Achieving the Difference

## price comparison passenger transport



estimated 95% reduction in prices in the long term

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# THALES

# achieving<sup>the</sup>difference

#### achieved the difference

#### the challenge

The commercial Unmanned Air System (UAS) market is growing at pace while regulatory and technological approaches are developed. Thales UK wished to understand the opportunities available and to get a measured and informed insight of the optimal focus for its activities.

#### the solution

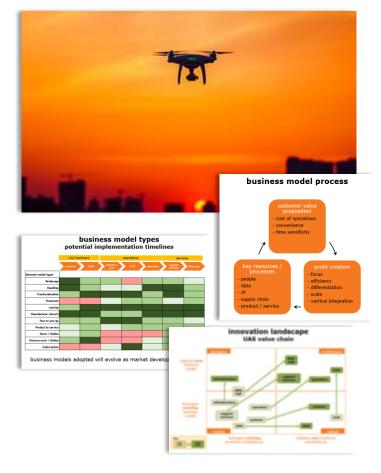
Focussing on end-user needs and requirements, Achieving the Difference analysed the market from multiple directions. Knowledge was drawn via primary research from industry / sectoral experts and from our own expertise. Achieving the Difference then developed models and provided insight into the UAS value chain, associated business models and potential implementation timelines.

#### the difference

Thales UK gained an additional perspective on the business opportunities available to help further inform its strategic business planning process.

"Achieving the Difference has added colour and additional external perspectives on the rapidly evolving market and value chain. The study has helped to inform our strategic planning as we continue to develop and launch new capabilities and services".

Raymond Li, Head of Air Strategy and Marketing, Thales UK.



# achieving the difference achieving to be made in Urban Air Mobility?

- in places
- in time
- will require investment and probably collaboration