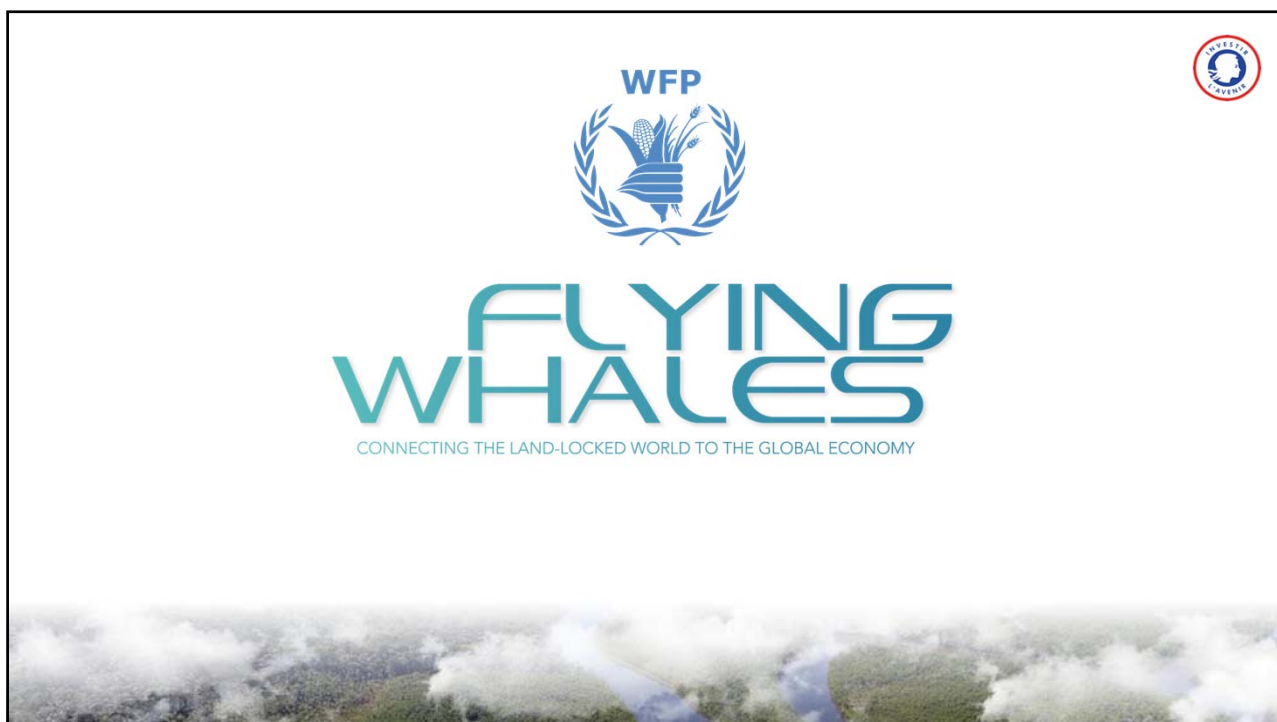
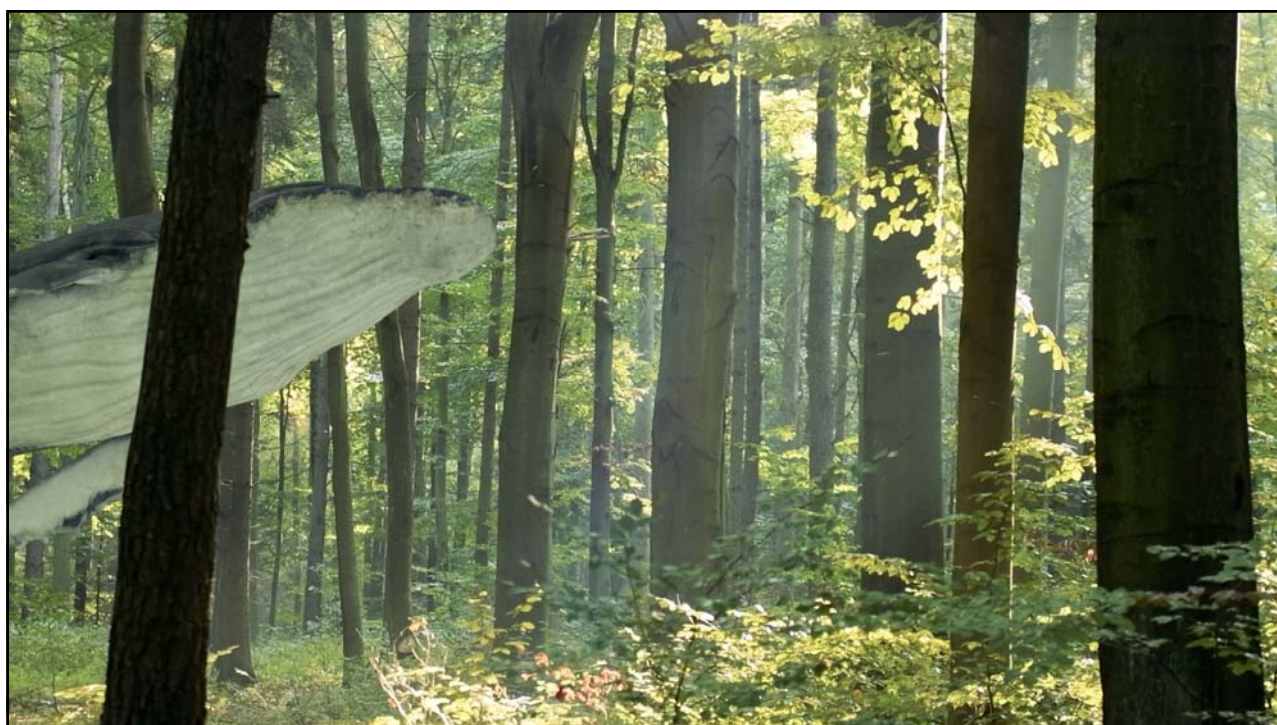




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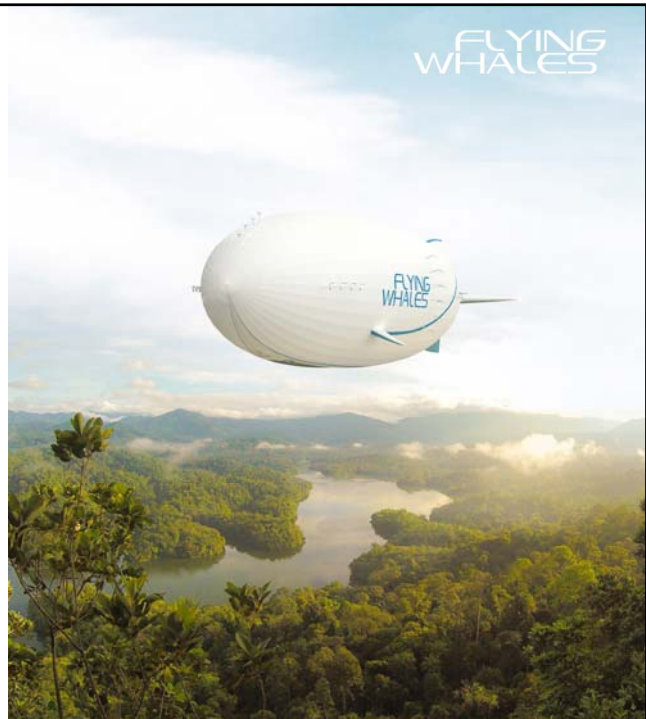


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OUR « RAISON D'ÊTRE » (Purpose Statement)

Our purpose is to provide the world with a solution which will both:

- ✓ Contribute to the expansion of economic development by **unlocking** land-locked territories lacking in infrastructure,
- ✓ Contribute to the significant reduction of cargo transport's **environmental** impact.



3

PROJECT LAUNCH



- **2012 - 2013:** First operational, economic and technical assessment by FLYING WHALES, ONF, and ONERA



- **2013 - 2016: Feasibility studies:**
 - ✓ FLYING WHALES and its first industrial partners **unlocked the technological bolts** and achieved the first conceptual design
 - ✓ **Financial studies:** Production costs, Operation costs, Program costs
 - ✓ **Market studies**
 - ✓ **Consortium:** more than 40 leading aerospace and industrial players
 - ✓ First contact with EASA (2014) to present certification strategy

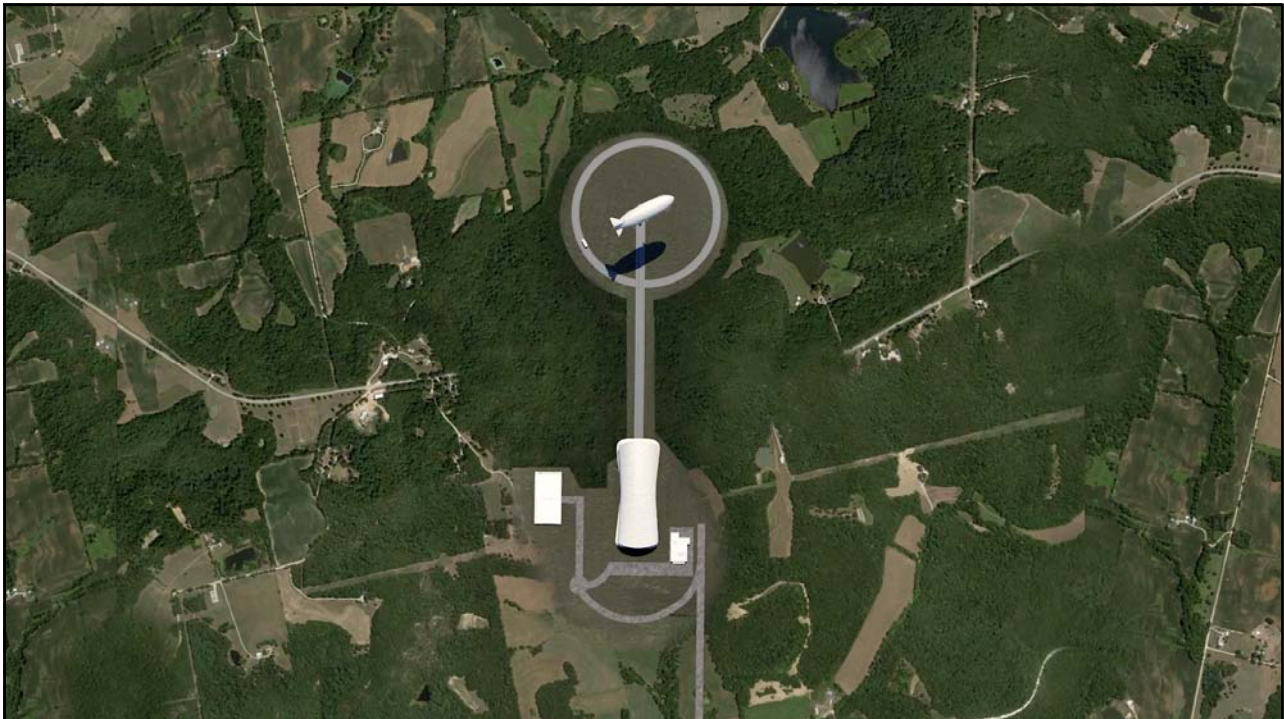
- **2017: Project launch**
 - Shareholding structure set up
 - Main French public financing agreement signed
 - **Program development launched**



- **2019:** FLYING WHALES and  **signed** for the Final Assembly Line financing

18.03.22 | 4

4



5

THE LCA60T
60 tonnes point-to-point with almost no environmental impact

FLYING WHALES

Load and unload in hover flight
Point-to-point transport

A rigid structure
For maximum operational security

14 helium cells unpressurised
An inert gas, stored, ensuring lift

7 propulsion points
Ensures perfect control
100 km/h (54 kt)
Vertical Take-off and landing

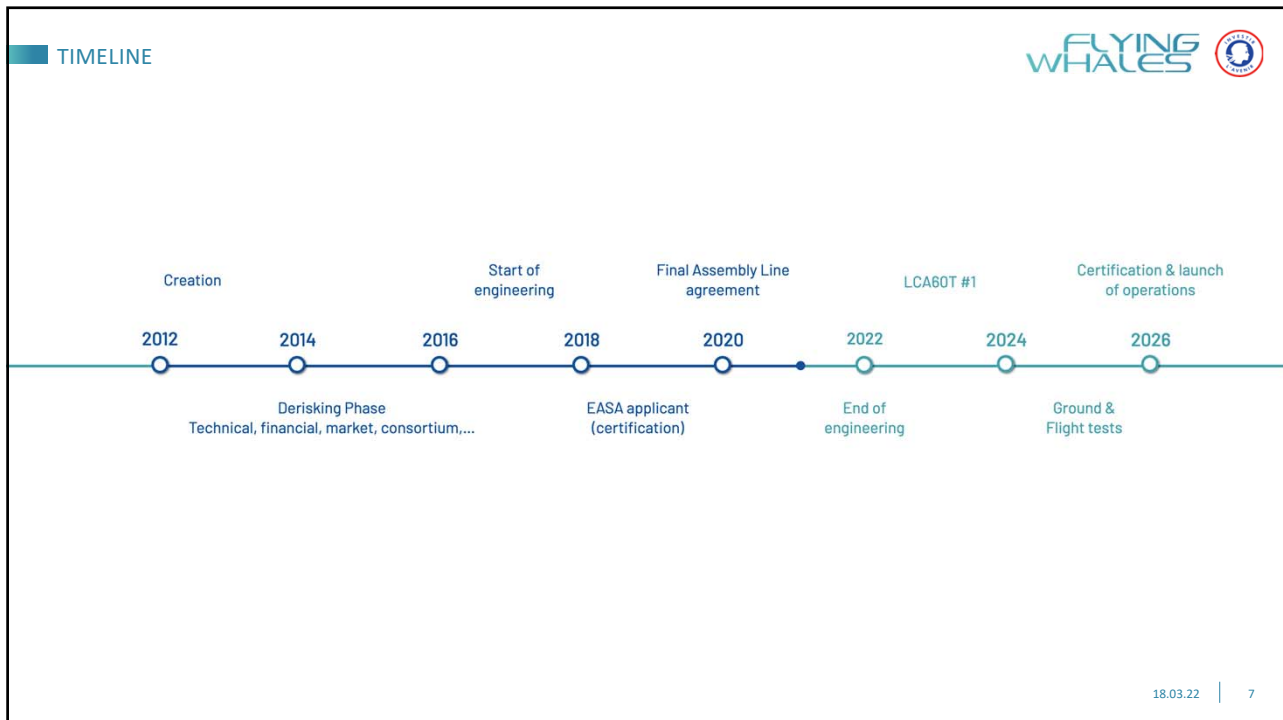
LCA60T dimensions
200m (L) x 50m (D)

A large 60 tonnes payload
In cargo bay and/or under-sling

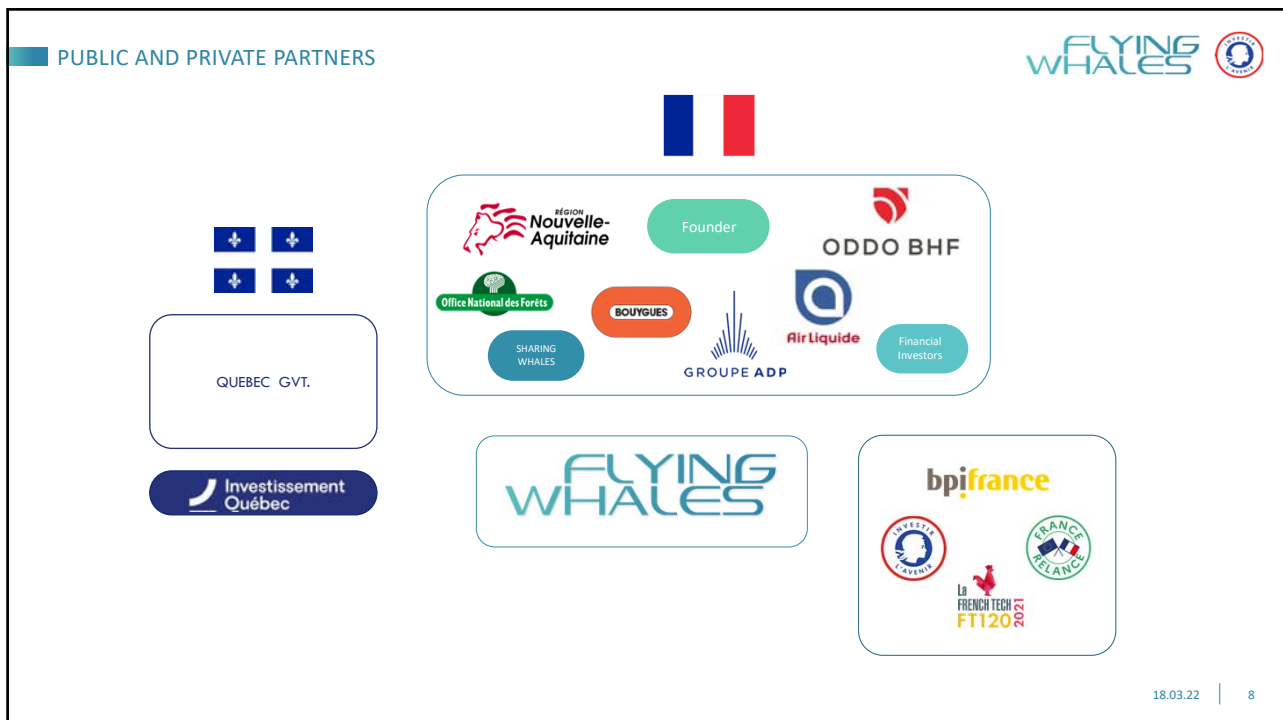
A vast cargo bay
96m (L) x 8m (W) x 7m (H)
315ft (L) x 26ft (W) x 23ft (H)

CONFIDENTIAL

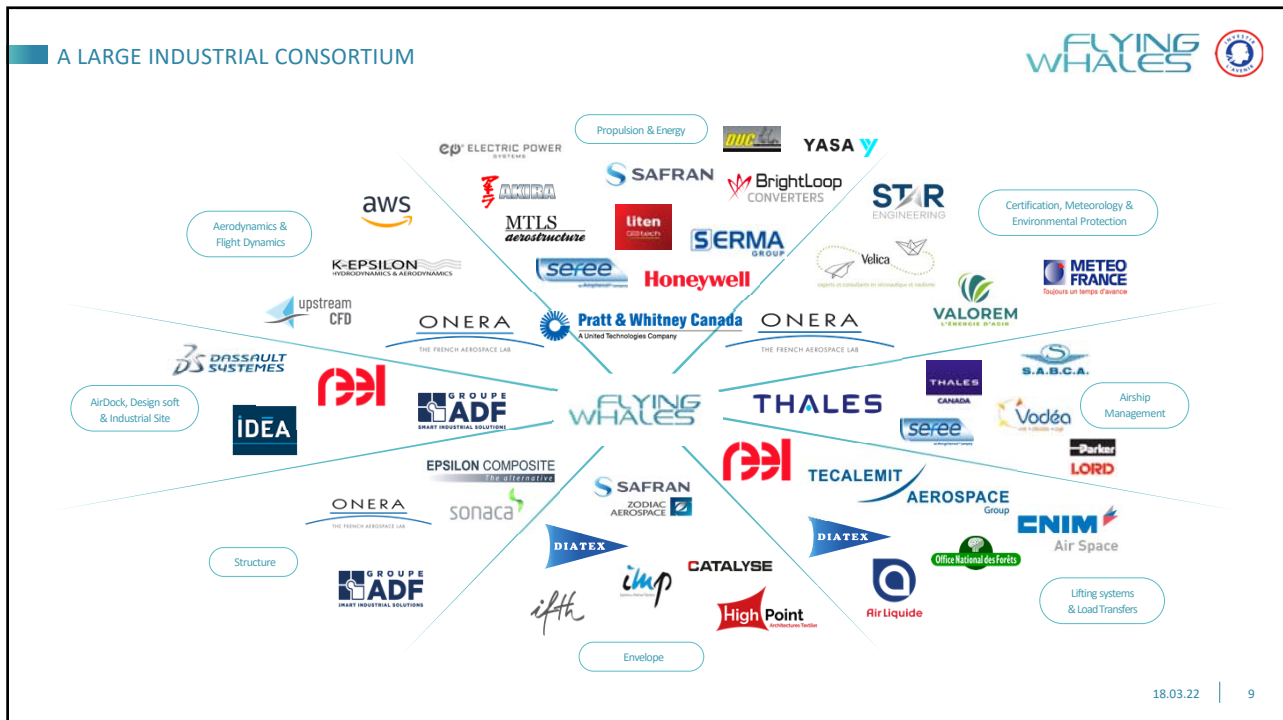
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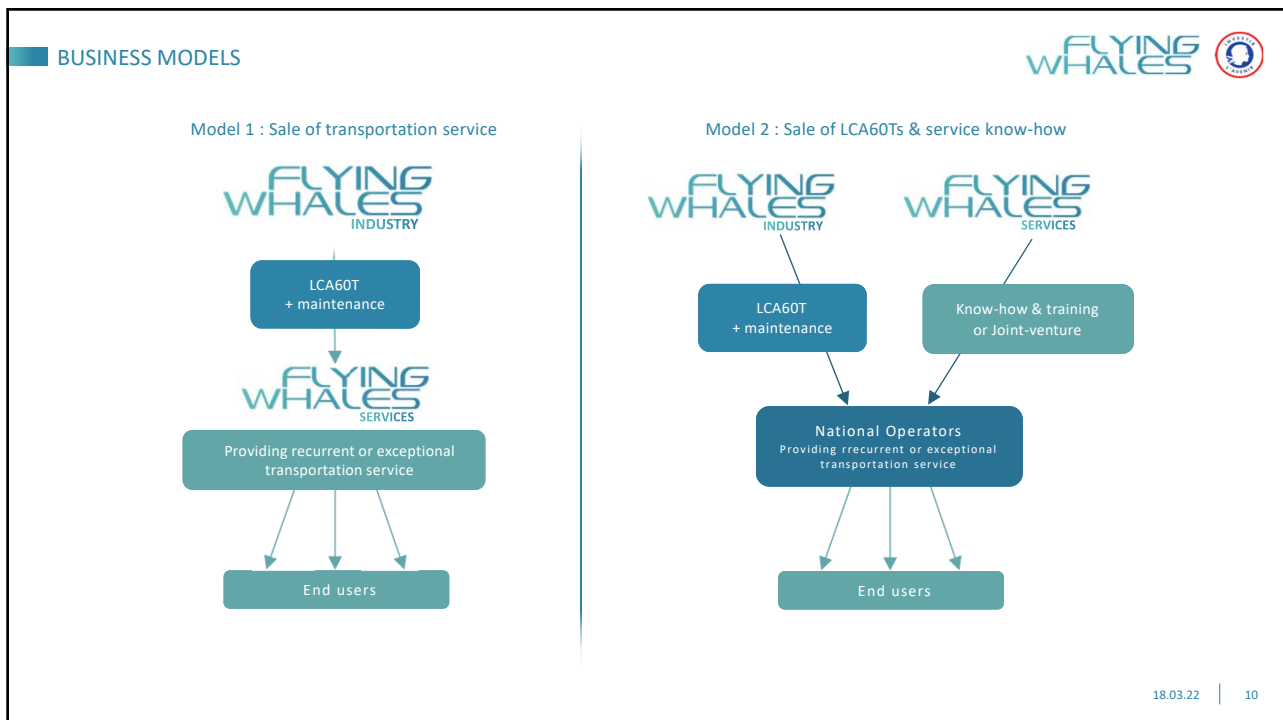
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LCA60T APPLICATIONS



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11

11

A GLOBAL PRESENCE: 152 LCA60T BASES OPERATED BY 2032



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12

12

FOCUS ON HUMANITARIAN AID AND DISASTER RELIEF



Disaster response

- Reaching a disaster-hit site **rapidly** is crucial to saving lives.
- Disasters significantly alter transport and network infrastructures.
- LCA60T can reach such areas to deliver **immediate aid**.



Refugee camps supply or remoted villages

- The supply of **essential resources** to refugee camps can be extremely challenging.
- Particularly the case for **water** trucks, temporary **housing**, etc.
- Alleviate camps supply **complexity** by handling heavy and bulky loads.
- FLYING CARE: mobile hospital



Conventional logistics

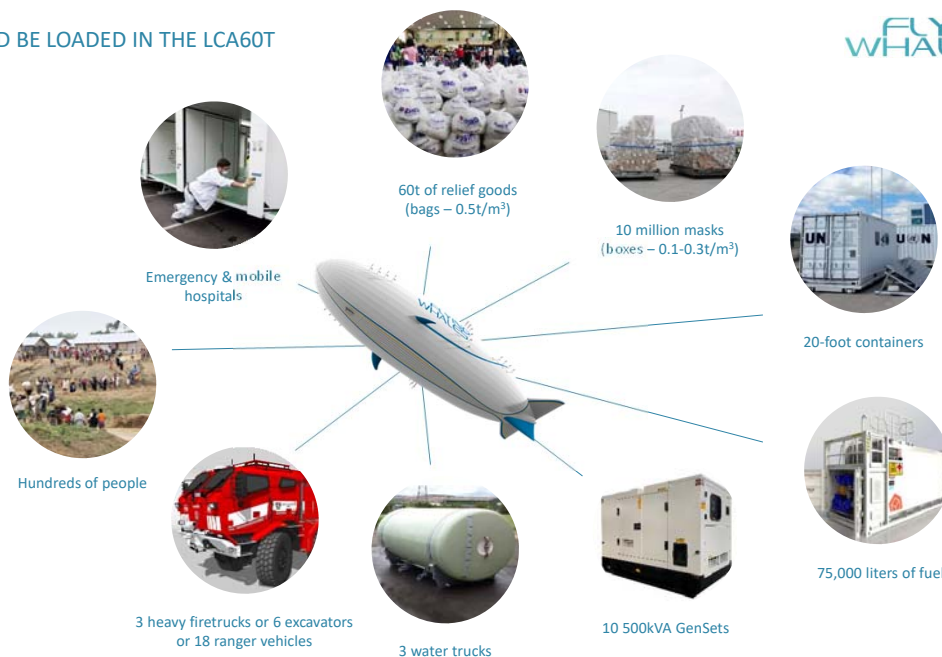
- Use case highlighted by WFP at 2020 Airship Conference.
- Supply **regional or local warehouses** from international logistics infrastructures.

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13

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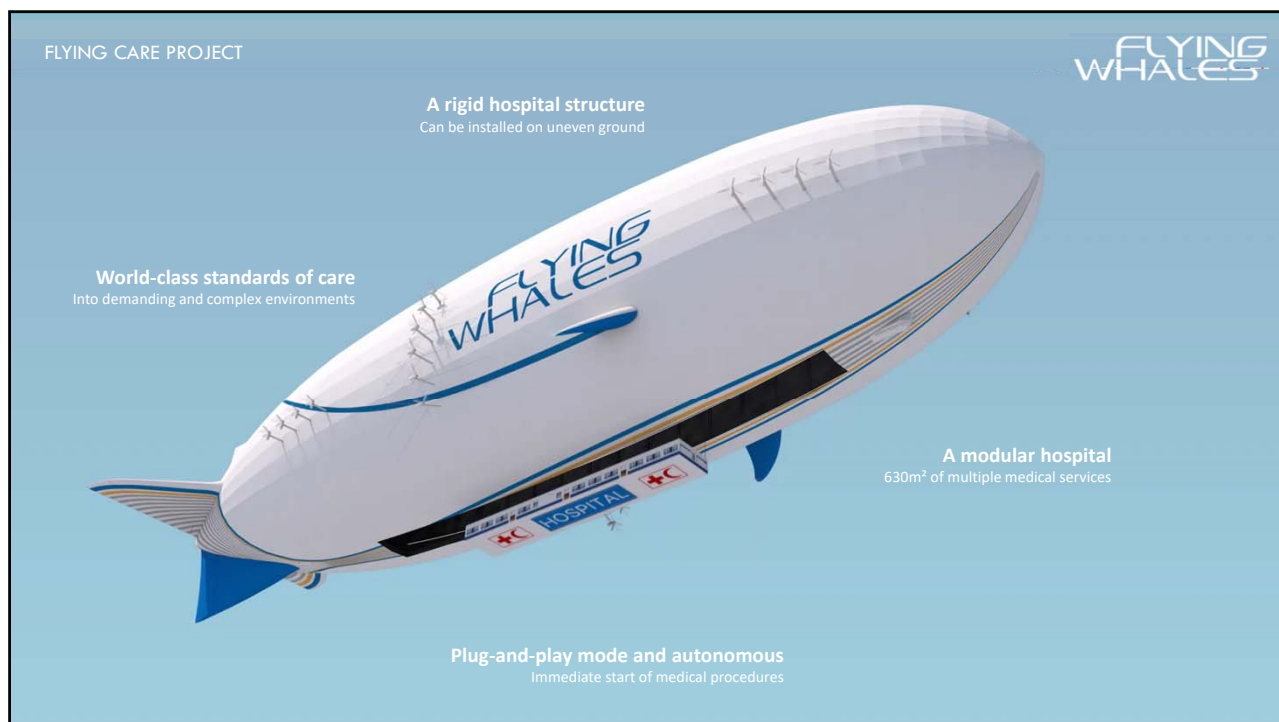
WHAT COULD BE LOADED IN THE LCA60T



18.03.22

14

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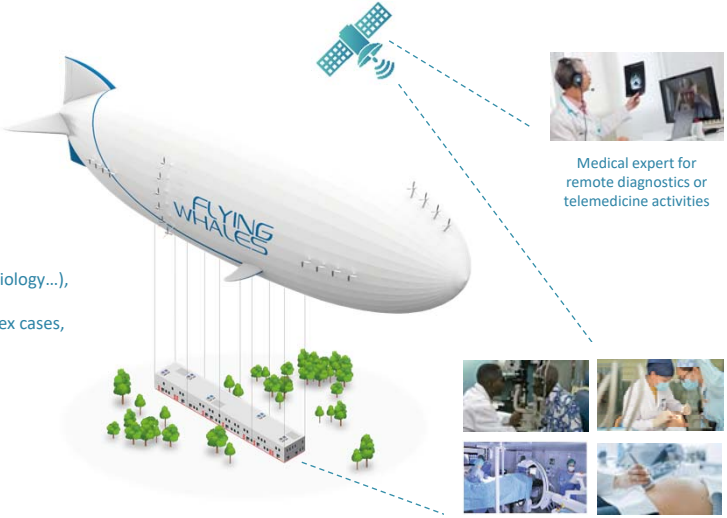
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PROVIDING REMOTE POPULATION WITH ADAPTED AND REGULAR HEALTHCARE

FLYING WHALES 

FLYING CARE mobile hospital:

- Pre-equipped with **advanced equipment** according to local population's healthcare needs,
- For preventive & curative **high-standard healthcare** (dentistry, ophthalmology, obstetrics, pediatrics, radiology...),
- Remote diagnostics with **tele-medicine** when complex cases,
- Self-sufficient** in energy and supplies.

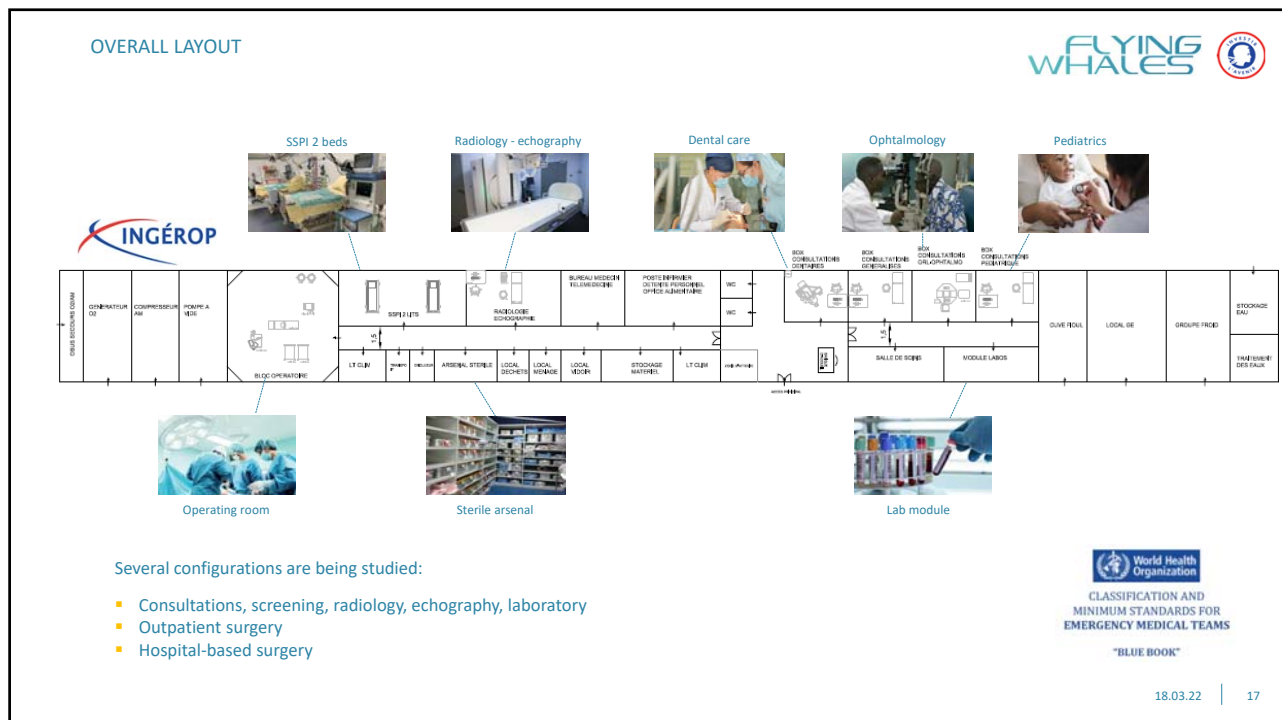


Medical expert for remote diagnostics or telemedicine activities

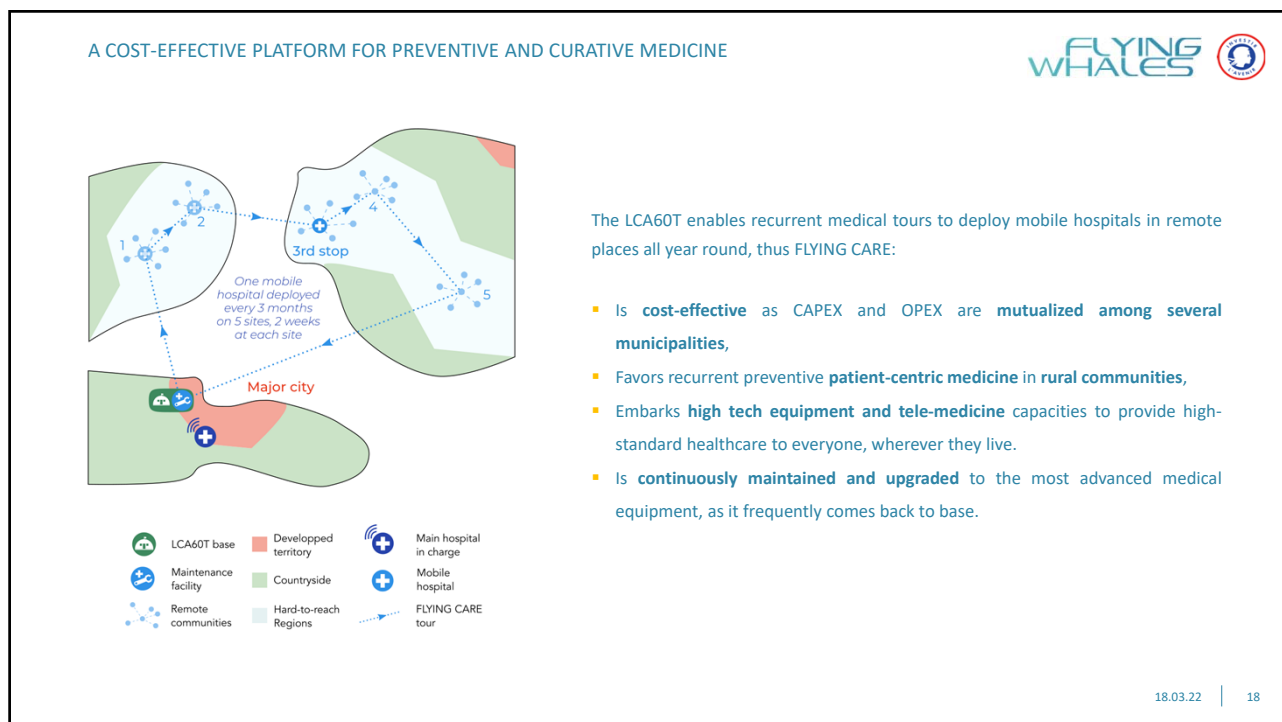
Mobile specialty medicine services

18.03.22 | 16

16



17



18



19

A POINT-TO-POINT SOLUTION TO GET RID OF TRANSPORT INFRASTRUCTURE

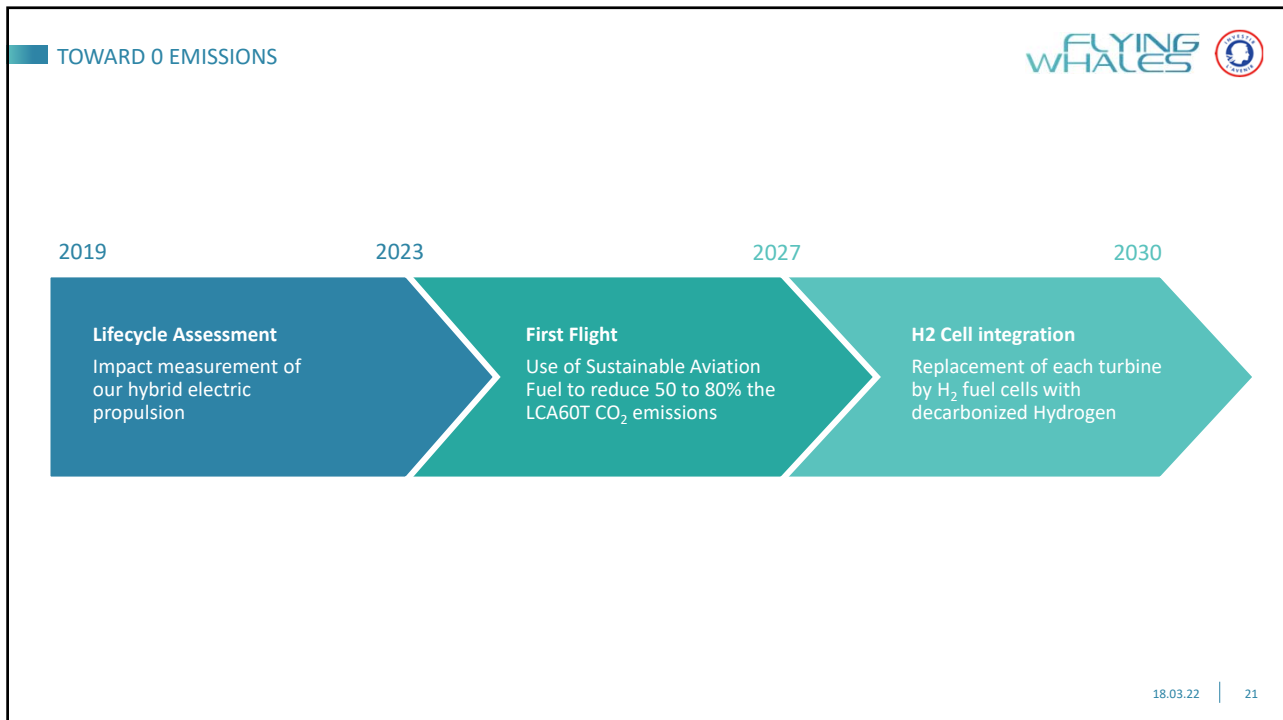
FLYING WHALES



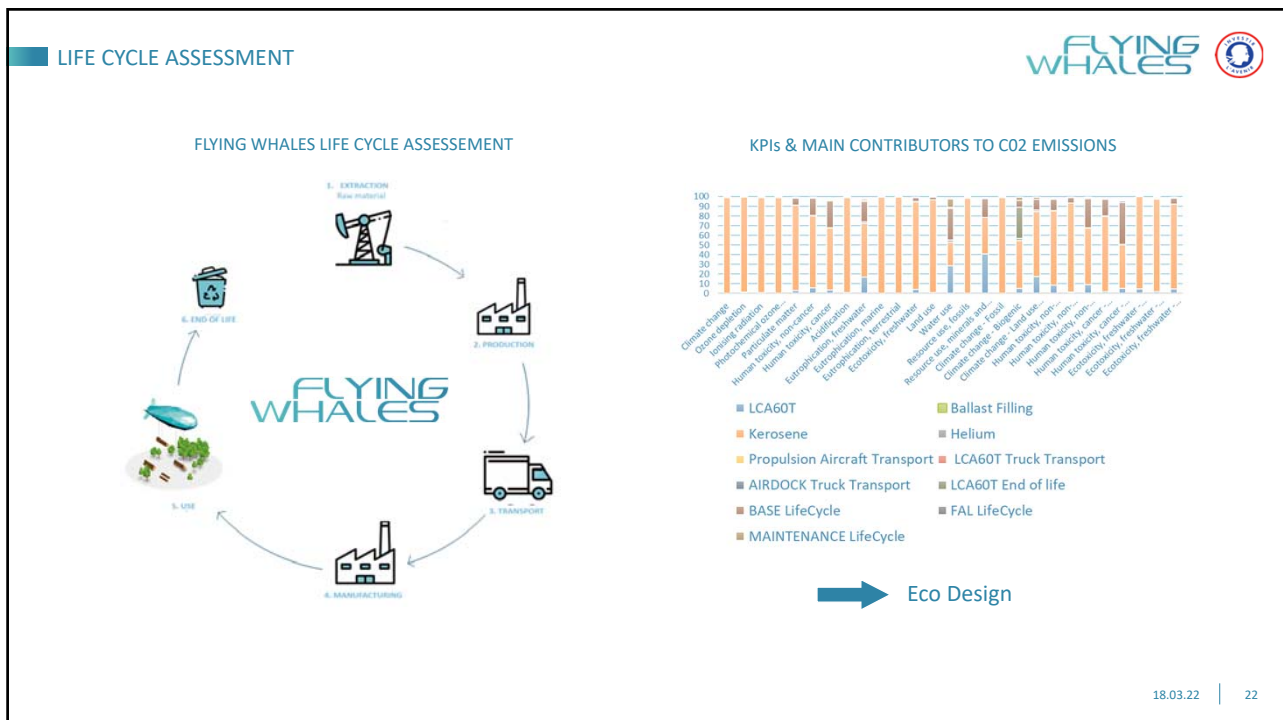


18.03.22 | 20

20



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22

SUSTAINABLE AVIATION FUELS



“

"The potential of SAF to reduce aviation GHG emissions has been recognized by ICAO, Member States and the aviation industry, such that **SAF are included amongst the "basket of measures"** put forward to assist States in designing their action plans on CO₂ emissions reductions. According to the ICAO 2016 trends assessment, a 100 per cent substitution of aviation fuel with SAF could **reduce 63 per cent of the baseline CO₂ emissions** from international flights in 2050. This would be aviation's most significant contribution towards achieving carbon neutral growth."

ICAO Sustainable Aviation Fuels
Guide, Dec. 2018

”

Benefits

CO₂ Reduction
-50 to -80%
CO₂ emissions

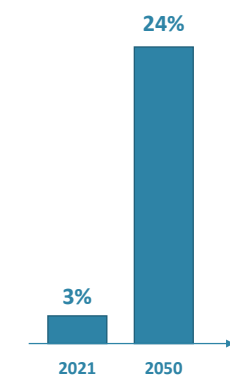
Improve local air quality
-90% PM
No SO_x

Better fuel efficiency
1.5% to 3%
Extended range or higher payload

18.03.22 | 23

23

HYDROGEN FOR AVIATION



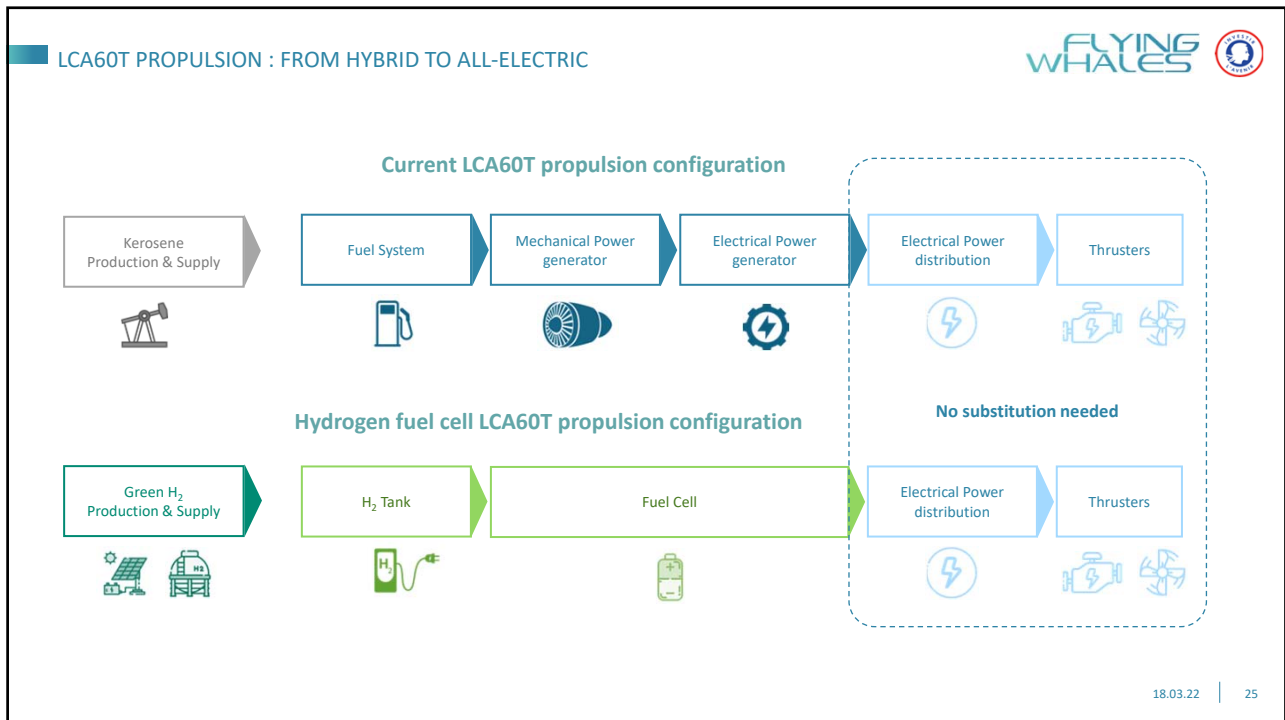
Aviation's share of
global CO₂ emissions



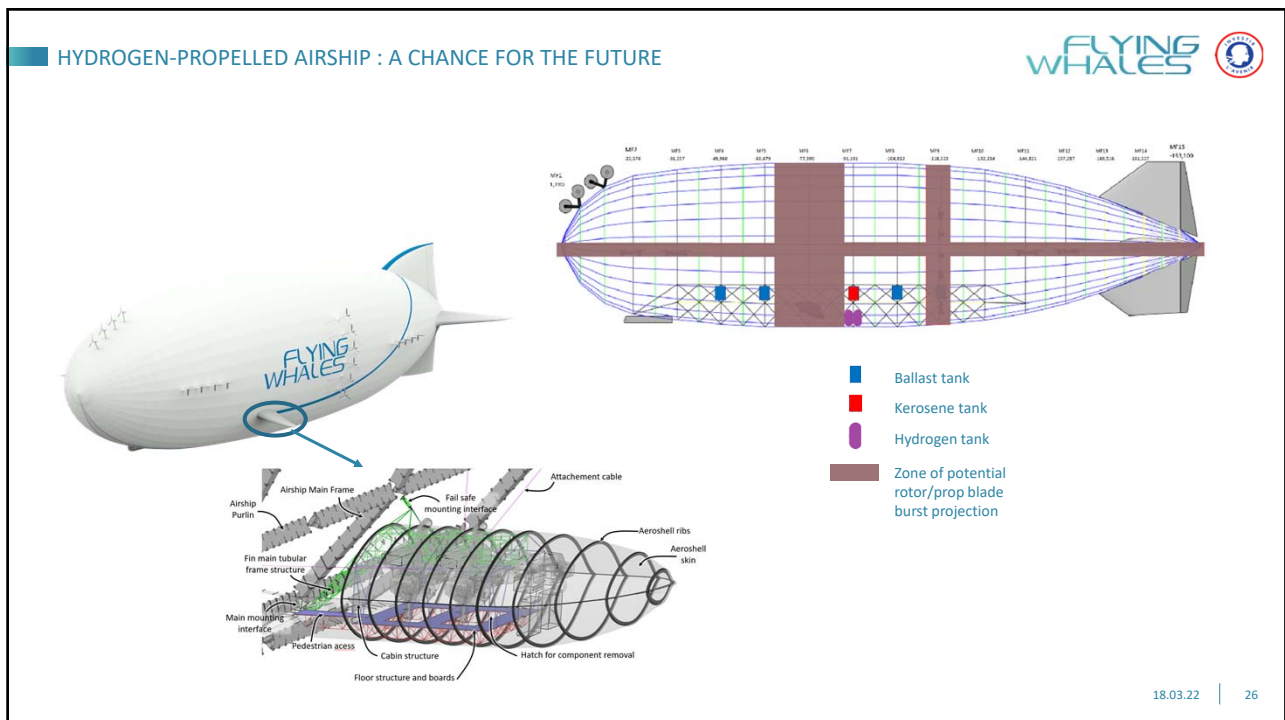
Source : Roland Berger,
March 11, 2020

H₂FLYING
WHALES

24



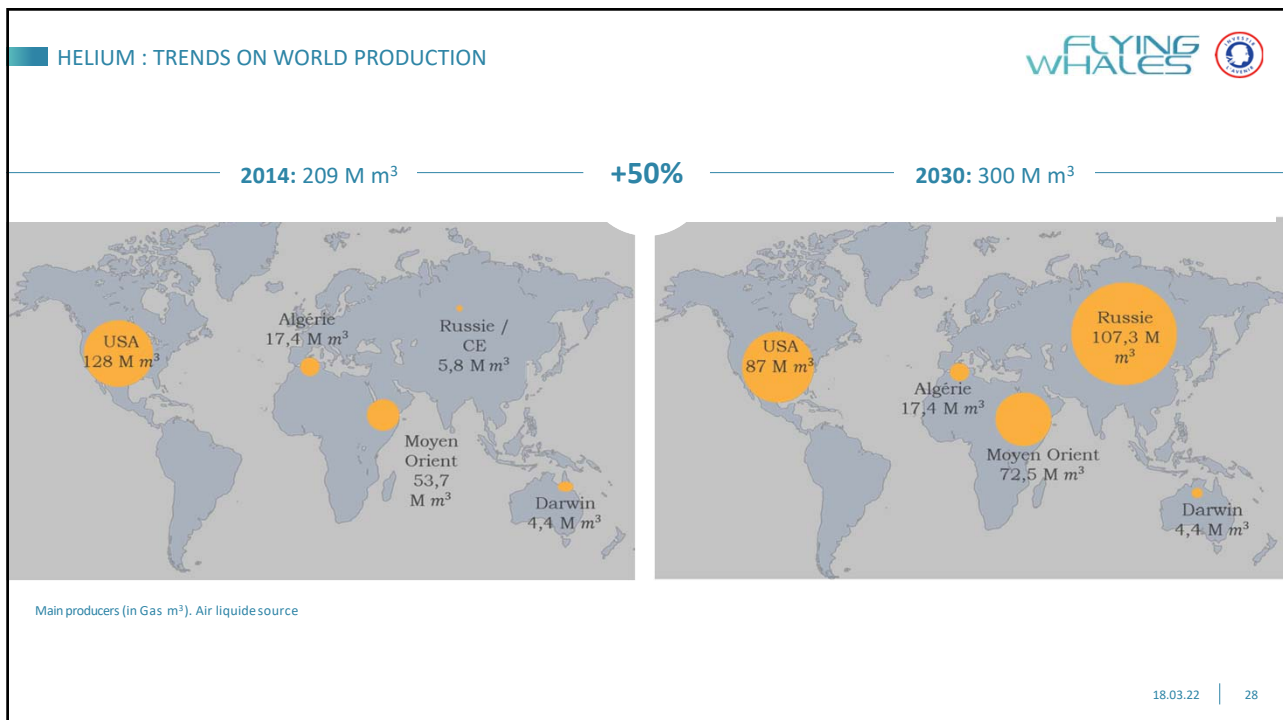
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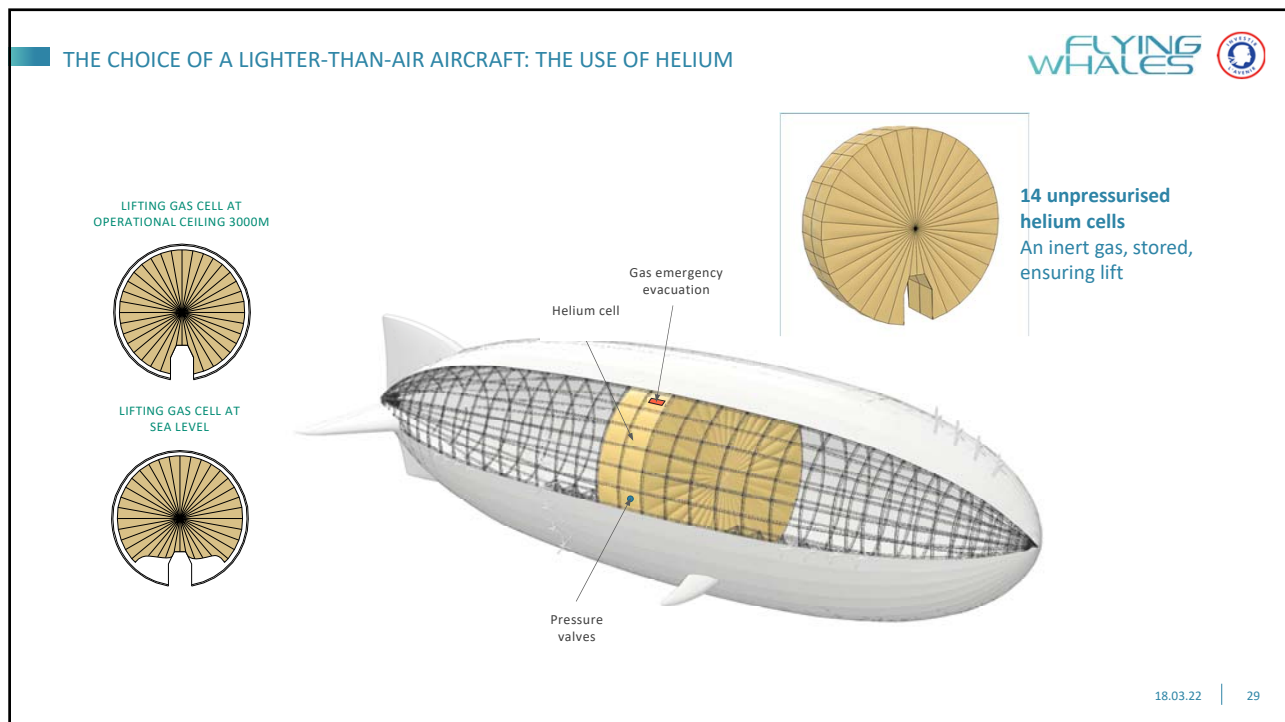
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