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Current and Future State of Healthcare

Shifting Demographics



Shifting Demographics

Aging populations, increasing populations, urbanisation, middle-class growth alongside the rise of chronic lifestyle diseases and mental health issues are putting healthcare systems under extreme pressure

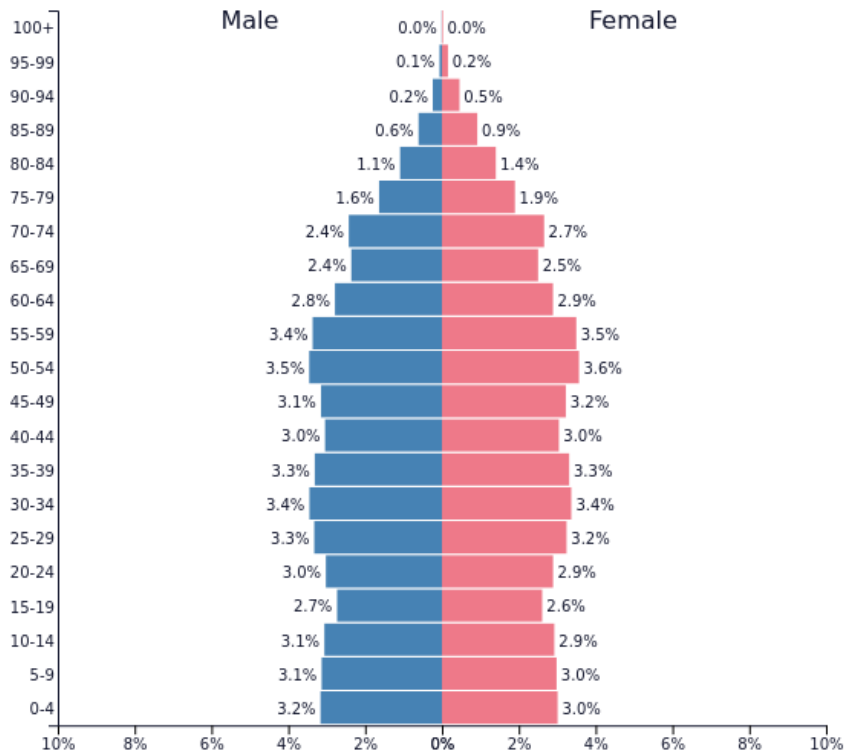
Global Aging Population

As life expectancy continues to rise, a staggering 300 million will be people aged 65 or older

UK Aging Population

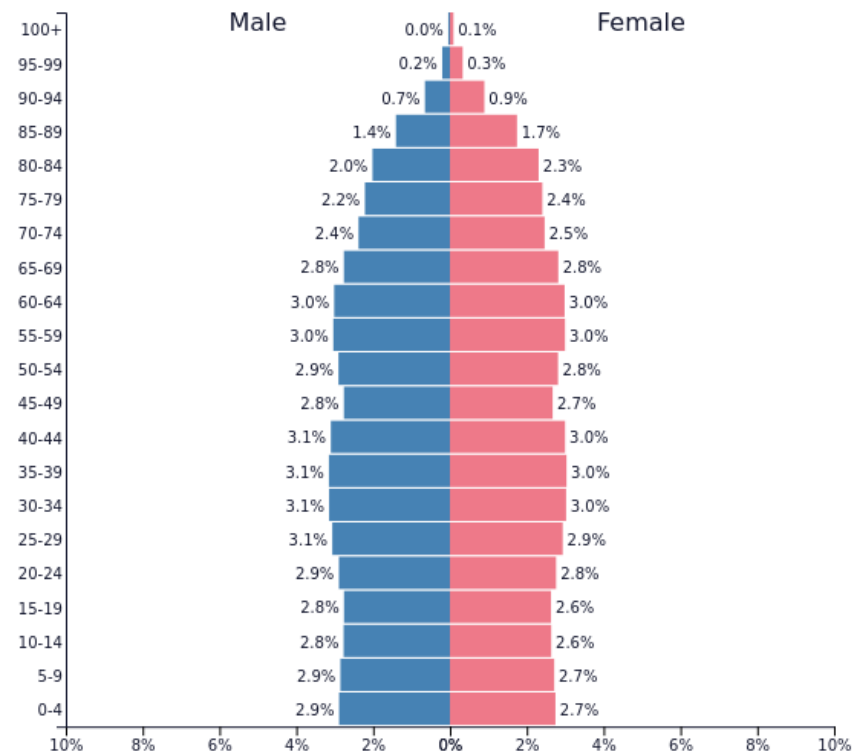
Projected to continue growing, the population will reach almost 73 million by 2041. The aging population is projected to grow from 18.2% in 2017 to 20.7% by 2027 (Source: Office of National Statistics)





United Kingdom - 2020
Population: **66,700,126**

PopulationPyramid.net



United Kingdom - 2050
Population: **75,360,971**

PopulationPyramid.net

DEMOGRAPHIC CHANGE



Current and Future State of Healthcare

UK Healthcare Professionals Leaving

In 2017 9000 doctors quit the NHS entirely

The NHS in England is already short over 100,000 staff, including 10,000 doctors and 40,000 nurses

The projected gap between staff needed and the number available could reach almost 250,000 by 2020 (Source: Kings Fund)



**Decreasing supply of
healthcare practitioners**



Current and Future State of Healthcare

Increasing healthcare costs

From 2017 – 2018, more than £140bn was spent on health across the UK - more than 10 times the figure that was spent 60 years ago.

The average 65-year-old costs the NHS 2.5 times more than the average 30-year-old; an 85-year-old costs more than five times as much

Increasing
healthcare costs



Current and Future State of Healthcare

Increasing Consumer Expectations



Rise of middle class/consumer expectations

65% of the global population will be middle class by 2030

The rising growth of the middle-class is also leading to higher levels of consumer expectation



What if...



Cost

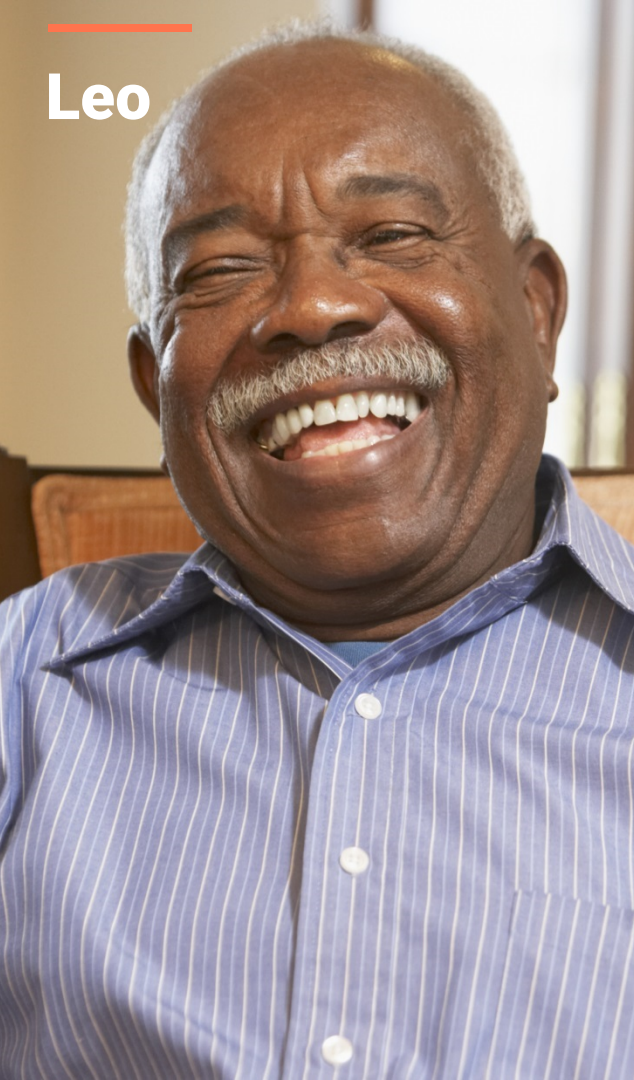


Access



Quality Experience

Leo



Carla



Ana



Leo

Age:

82

Residence:

Urban Neighborhood

Occupation:

Retired

Concerns:

- Decreased mobility
- Vision impairment
- Chronic rheumatoid arthritis
- “Aging in place”



“I’m glad I can stay in my home, but it’s difficult to get to appointments.”

Carla

Age:

56

Residence:

Suburban
Condominium

Occupation:

School Teacher

Concerns:

- Weight management
- Type 2 diabetes
- Heart disease
- Convenience



“It’s hard to find time to take care of my health, especially when I’m balancing work and family.”

Ana

Age:
34


Residence:
Small Rural
Community

Occupation:
Works Part-Time
from Home

Family:
Ben, Lucas and
Isabella

Concerns:

- High-risk pregnancy
- Caring for children, ages 1 and 6
- Work-life balance



“We love small town country living, but access to pre-natal and pediatric care is a concern.”









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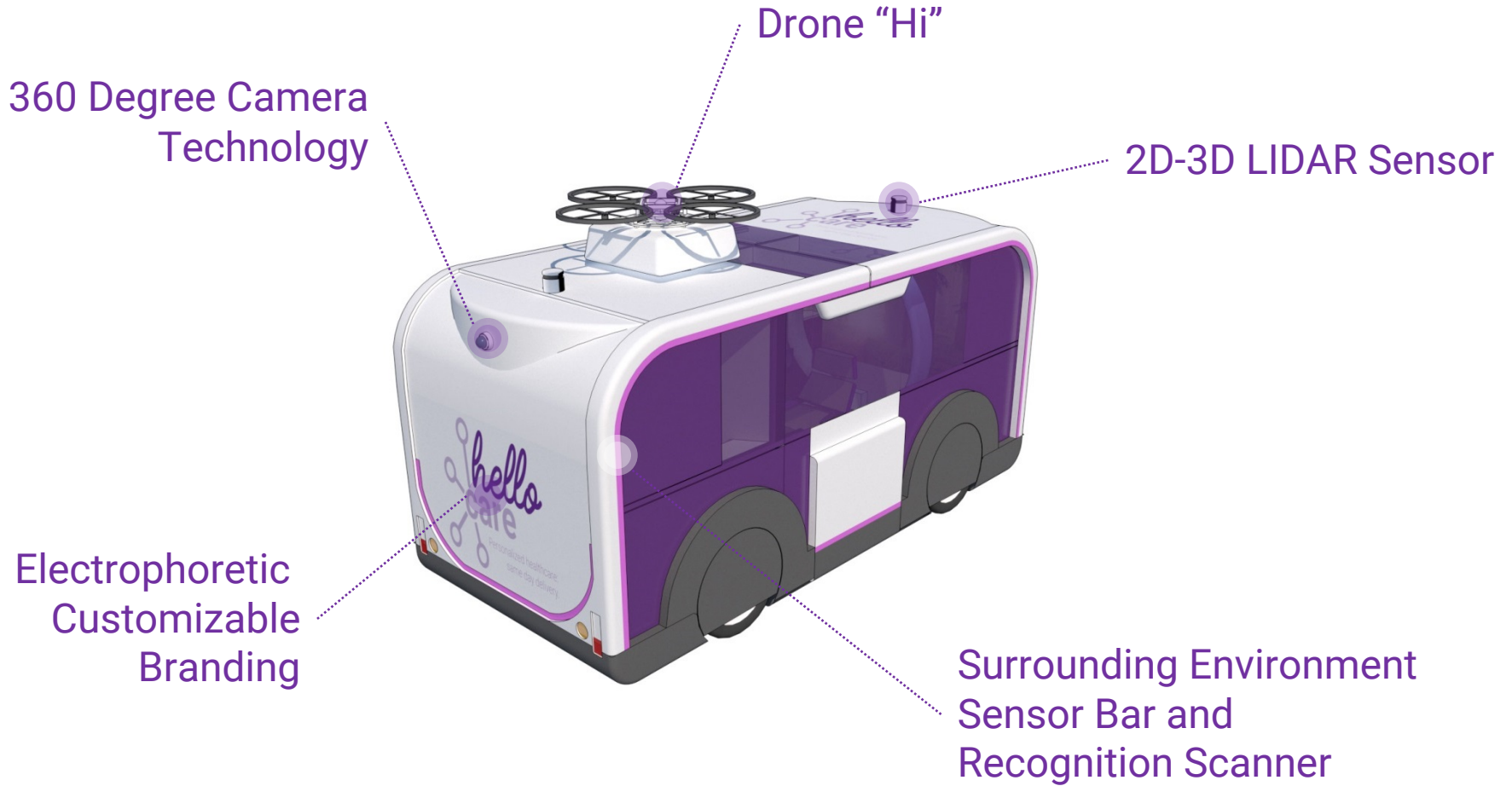
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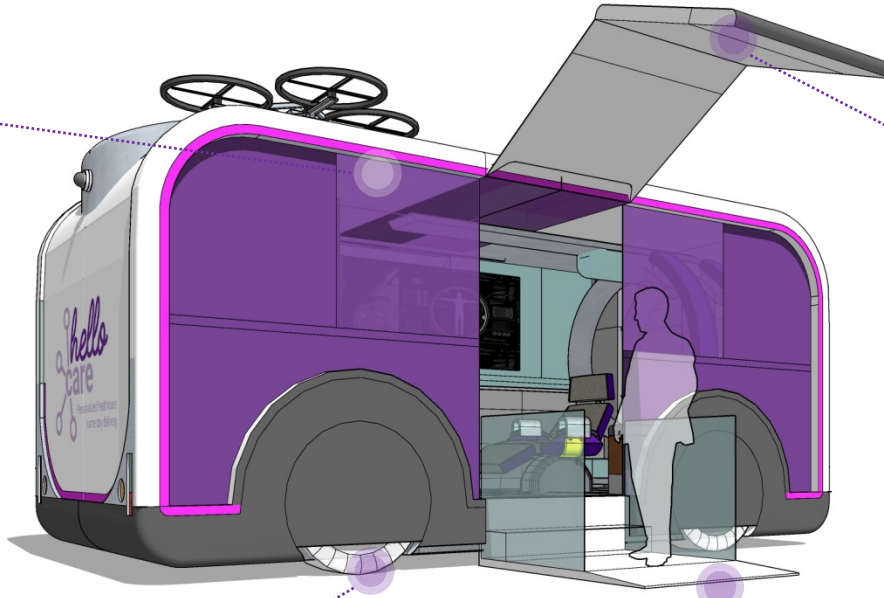
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Hello Care Services

	Wellness	Diagnostic	Interventional	Acute	Post-acute
Primary Care	Wellness Check 	Blood Draw 		<i>At Hospital</i>	
Cardiology		ECG, Echo, Ultrasound 		<i>At Hospital</i>	
Endocrinology	Diabetes Blood Work 			<i>At Hospital</i>	Diabetes Management Plan 
OB/GYN	Prenatal Care 	Ultrasound, Heart Monitoring 		<i>At Hospital</i>	Post-natal Care 
Oncology			Infusion 	<i>At Hospital</i>	
Pediatrics	Well-child Exam 			<i>At Hospital</i>	Infant/Newborn Care 



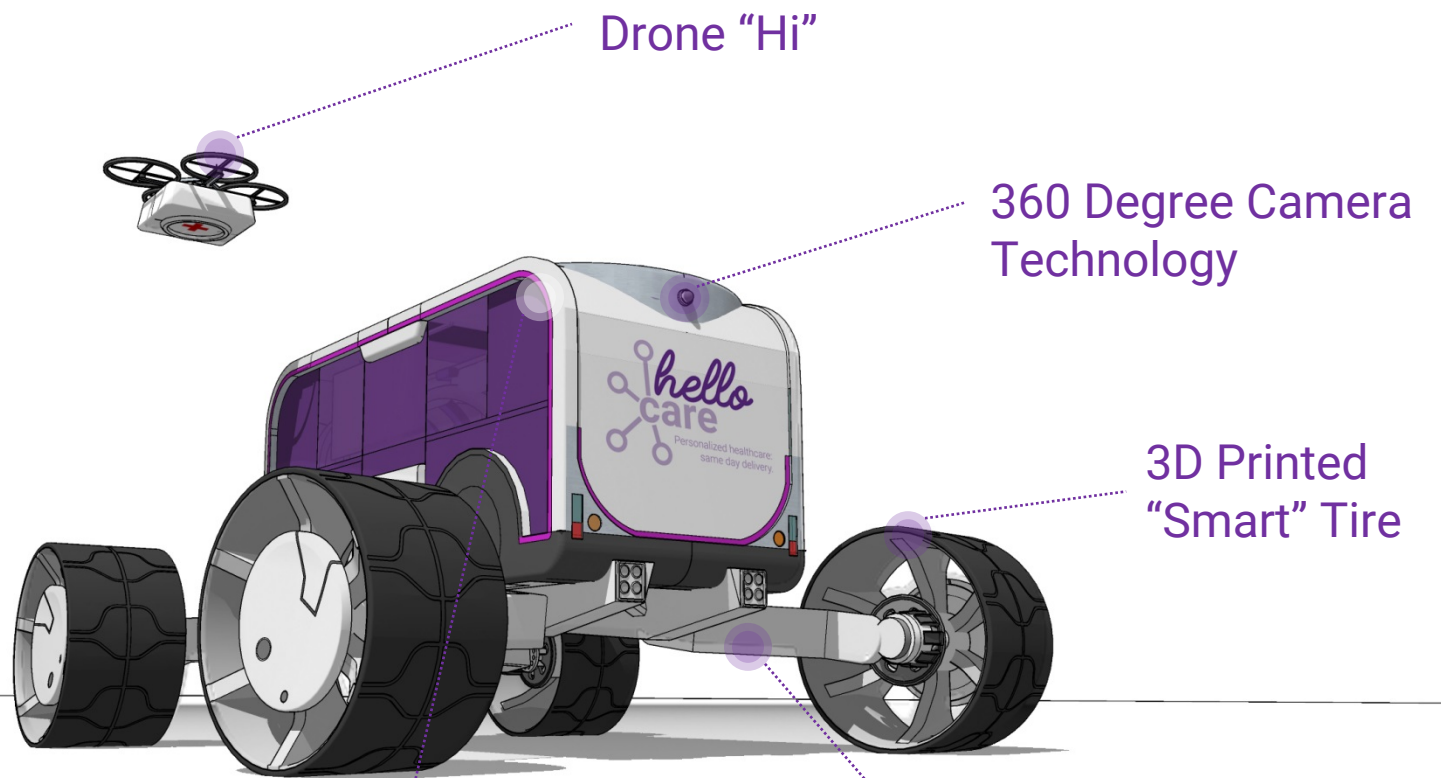
Switchable
"Smart" Glass



Door Functions as a
Canopy

3D Printed
"Smart" Tire

Accessible Integrated
Ramp and Door



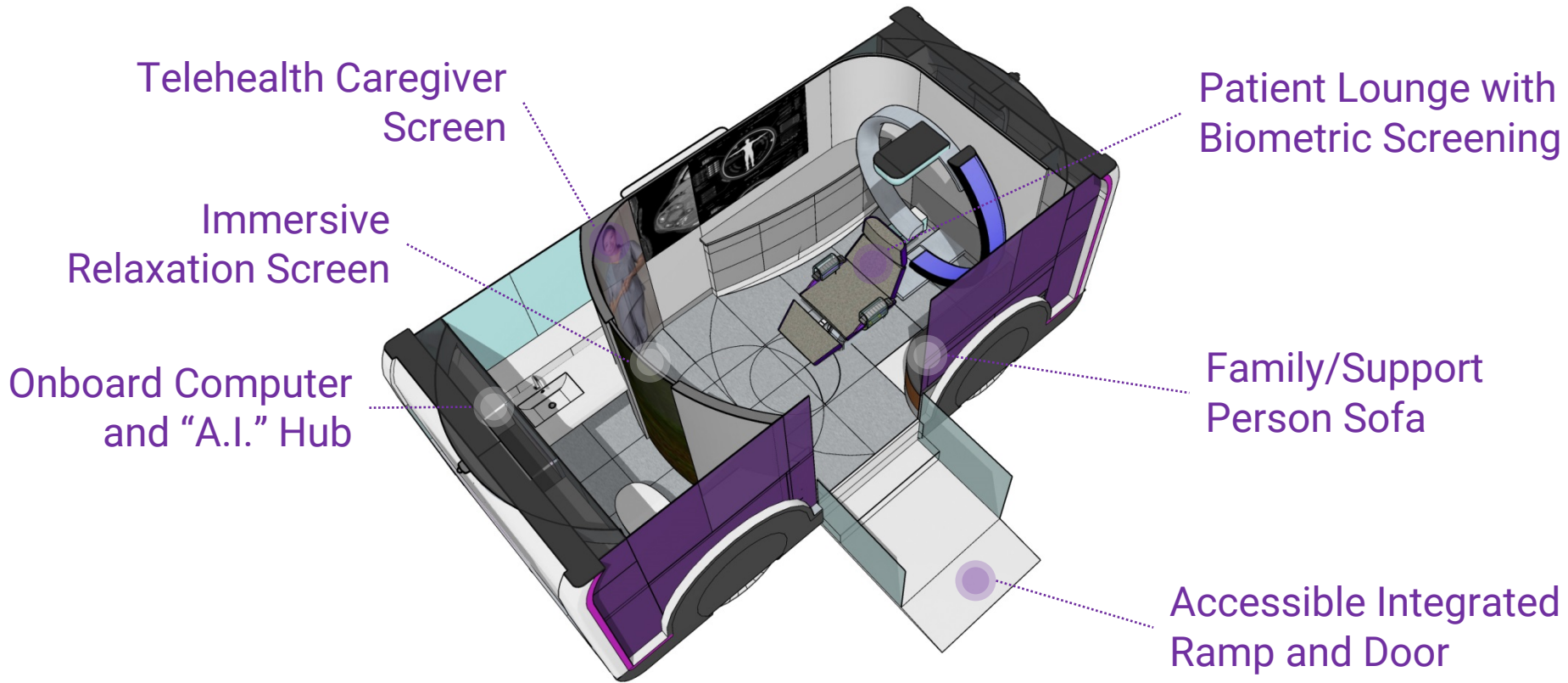
Drone "Hi"

360 Degree Camera Technology

3D Printed "Smart" Tire

Environment Customizable Chassis

Surrounding Environment Sensor Bar and Recognition Scanner



STANDARD PATIENT **CARE/ EXAM** CONFIGURATION



Self Cleaning "Ozone" Sink

Real Time Patient
Diagnostic Display

Onboard Computer
and "A.I." Hub

Diagnostic Scanner

Lab Analysis
Toilet

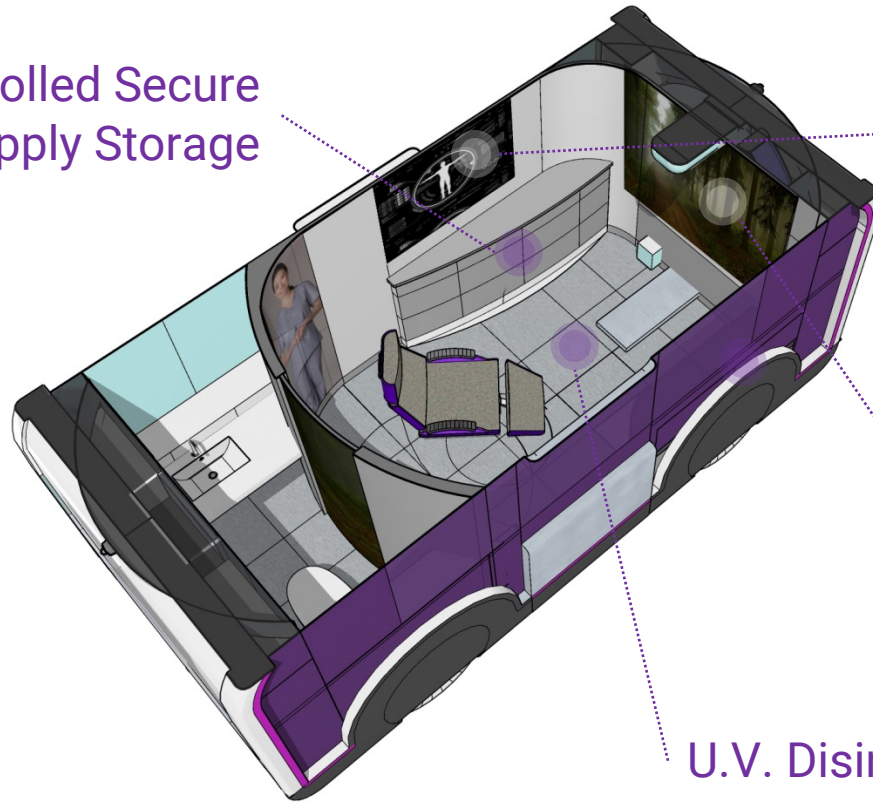


PATIENT **SCAN** CONFIGURATION



Remote-Controlled Secure Medication/Supply Storage

Real Time Patient Diagnostic Display



Immersive Relaxation Screen

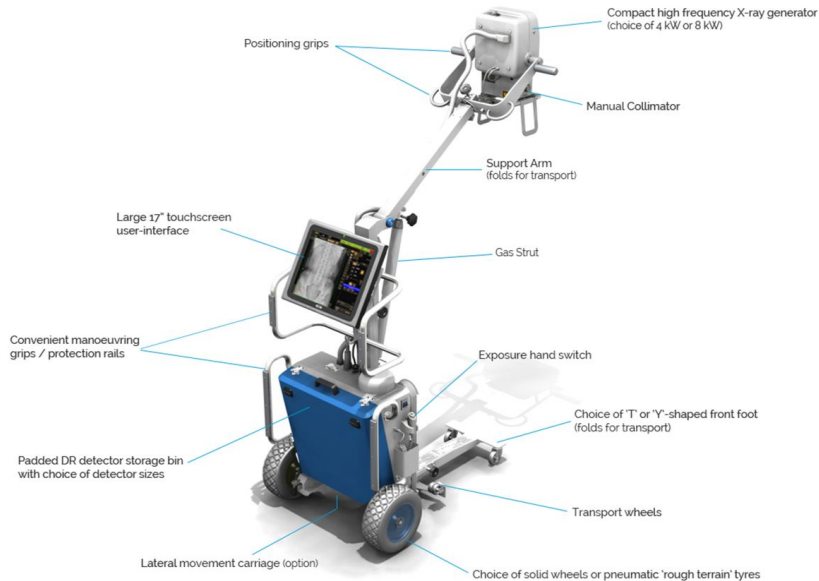
U.V. Disinfection

PATIENT **PROCEDURE** CONFIGURATION





- Mobile Technologies are not new. Proven benefits include:
- Faster roll out of new technologies, improving diagnostic outcomes, supporting better patient care pathways
- New best practice creates new uses driving up demand
- Provides cost effective solution for hospitals with no diagnostic services or to reduce waiting lists where existing equipment cannot meet demand



- Mobile equipment becoming more commonplace
- Compact and semi-portable equipment that folds for transport
- Ideal for a services in the community, small clinics field hospitals
- Intuitive user interfaces and wireless connectivity available
- . . . but still needs space and set up time



- Self Driving – Human Monitoring
- Fleet Management
- Rider App
- 360 degree Lidar
- Customisable
- Equipped with IBM Watson
- Electric Drive train

3D PRINTED AUTONOMOUS VEHICLE





- Innovation in transportation
- Merge autonomous vehicles with new equipment trends
- Care delivered to the doorstep
- Reduced capital expenditure

3D PRINTED AUTONOMOUS VEHICLE





OXFORD UNIVERSITY HOSPITAL TRUST MASTERPLAN





£3,000 sq m



£10,000 sq m

CAPITAL COSTS





hello care

Personalized Healthcare,
Same Day Delivery





Many Thanks to our Hello Care Team:

Shannon Bamberg

Michael Chee

Katherine Crowley

Brad Courtney

Lori Erlandson

Mathew Grant

Christine Hester Devens

Kristi Holden

Kristina (Moose) Johnston

Stephen Knowles

Jim Lewison

Greg Mare

Aaron McCauley-Aburto

Vickie McCormick

Chris Medeck

Tracy Mohrman

Shannon Officer

Stephen Paul

Rob Rothblatt

Matt Sanders

Dale Sinclair

Eric Sweeter

Daryl Taavola

James Thomson

Hollie Wendling

Mark Whiteley

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Personalized Healthcare,
Same Day Delivery

