

Technology Update

*Board of Management of the Toronto
Zoo
July 19, 2024.*



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1974 2024

ACCREDITED BY THE
**ASSOCIATION
OF ZOOS &
AQUARIUMS**



Our Mission:

Connecting people, animals and conservation science to fight extinction



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Strategic Priorities:

Revolutionize Zoo Technology -

Lead the way for innovation in technology
for zoos worldwide



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Where we started...



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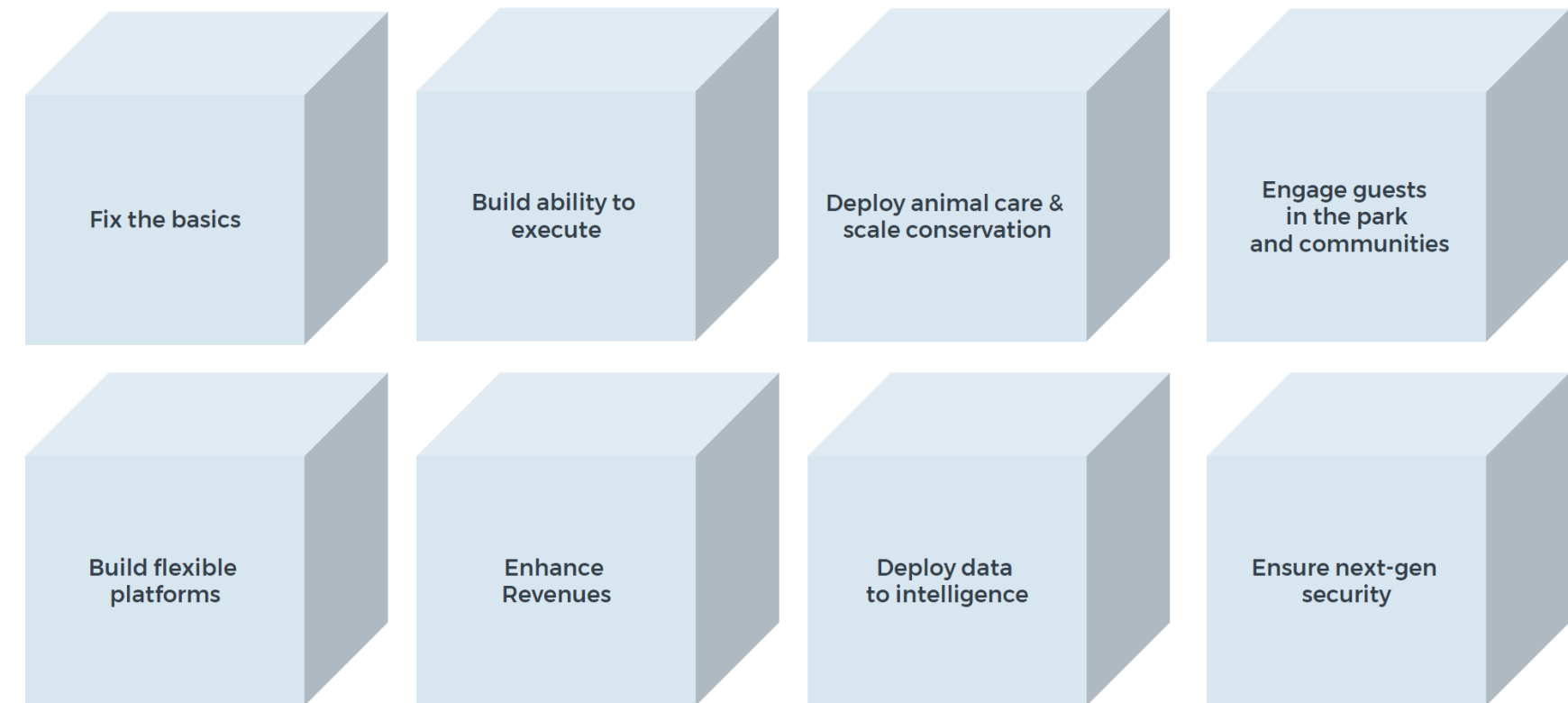


Technology Master Plan 2021

Strategic Directions:

- 1 Make the hidden Zoo go Extinct
- 2 Create WOW
- 3 Become an innovation zone
- 4 Embed sustainable principles in technology

8 building blocks for the Zoo's IT strategy:



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Fixing the basics....

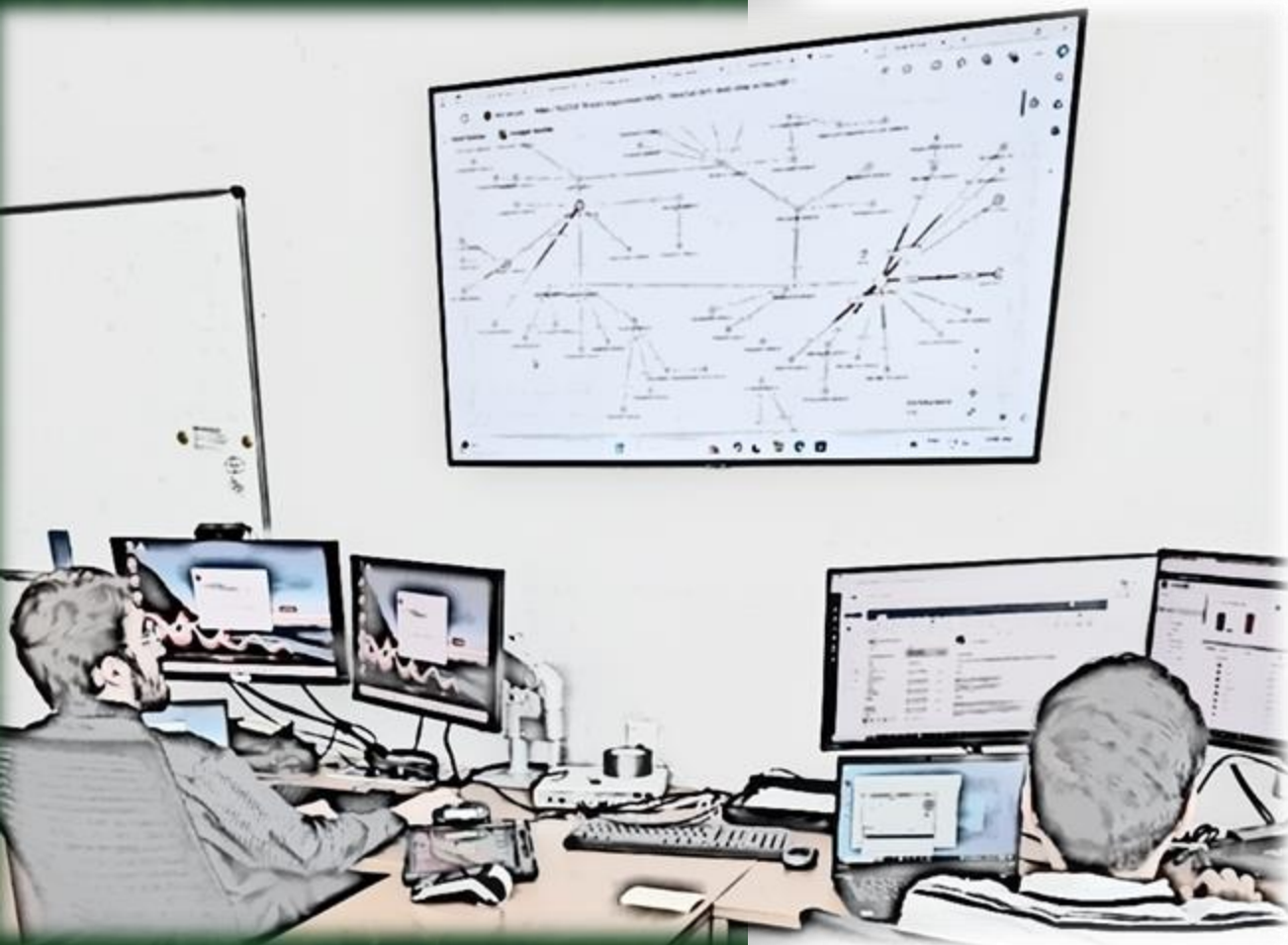
- Laptops and tablets deployed to most staff
- Remote working capabilities enabled for staff
- Site wide wifi implemented for staff and guests
- Transition to cloud-based applications
- 88 physical servers to 3
- Upgraded A/V in meeting and event spaces
- VOIP telephone system deployed



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Focus on cybersecurity



- Drawing on lessons learned from the recent cyber attack
- Renewed focus on training and testing
- Hardened our network and access rights
- Implemented device tracking and network monitoring
- Embedded cybersecurity as a primary lens for all technology-related requests
- Strengthening our relationship with the Chief Information Security Officer (CISO) at the City of Toronto



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Where we are....



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Building our ability to execute...

- Admissions
- Dynamic Pricing
- ZIMS Upgrades
- Retail Inventory
- Asset Management
- Security and Control Systems
- Building Automation Services
- Life Support System Monitoring
- HR and Financial Management



1 Select Date & Tickets

Choose Date

←

July 2024

→

Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6
7	8	9	10	11	12 \$43	13 \$43
14 \$40	15 \$37	16 \$35	17 \$36	18 \$34	19 \$35	20 \$36
21 \$36	22 \$34	23 \$33	24 \$33	25 \$34	26 \$35	27 \$35
28 \$35	29 \$34	30 \$33	31 \$33			

Select Tickets & Quantity

Adult (Age 13-64)
CAD \$42.95

−

0

+

Senior (Age 65+)
CAD \$36.51

−

0

+

Child (Age 3-12)
CAD \$30.07

−

0

+

Free Child (Age 2 & Under)
Free

−

0

+

Adult With A Disability (Age 13-64)
CAD \$21.48

−

0

+

Senior With a Disability (Age 65+)
CAD \$18.26

−

0

+

Child With A Disability (Age 3-12)
CAD \$15.04

−

0

+

11:43 5G+ 85

Admissions Dashboard

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Weather: Clouds 12°C
Wednesday, Mar 13, 2024 11:43:55

On Site Attendance

Current day real time updated

6,241

Budget: 4,000

1,290 2,084 1,084 1,840 3,096 8,624 6,241

07 08 09 10 11 12 13

3040

2480

617

104

Admissions (3040)

Members (2480)

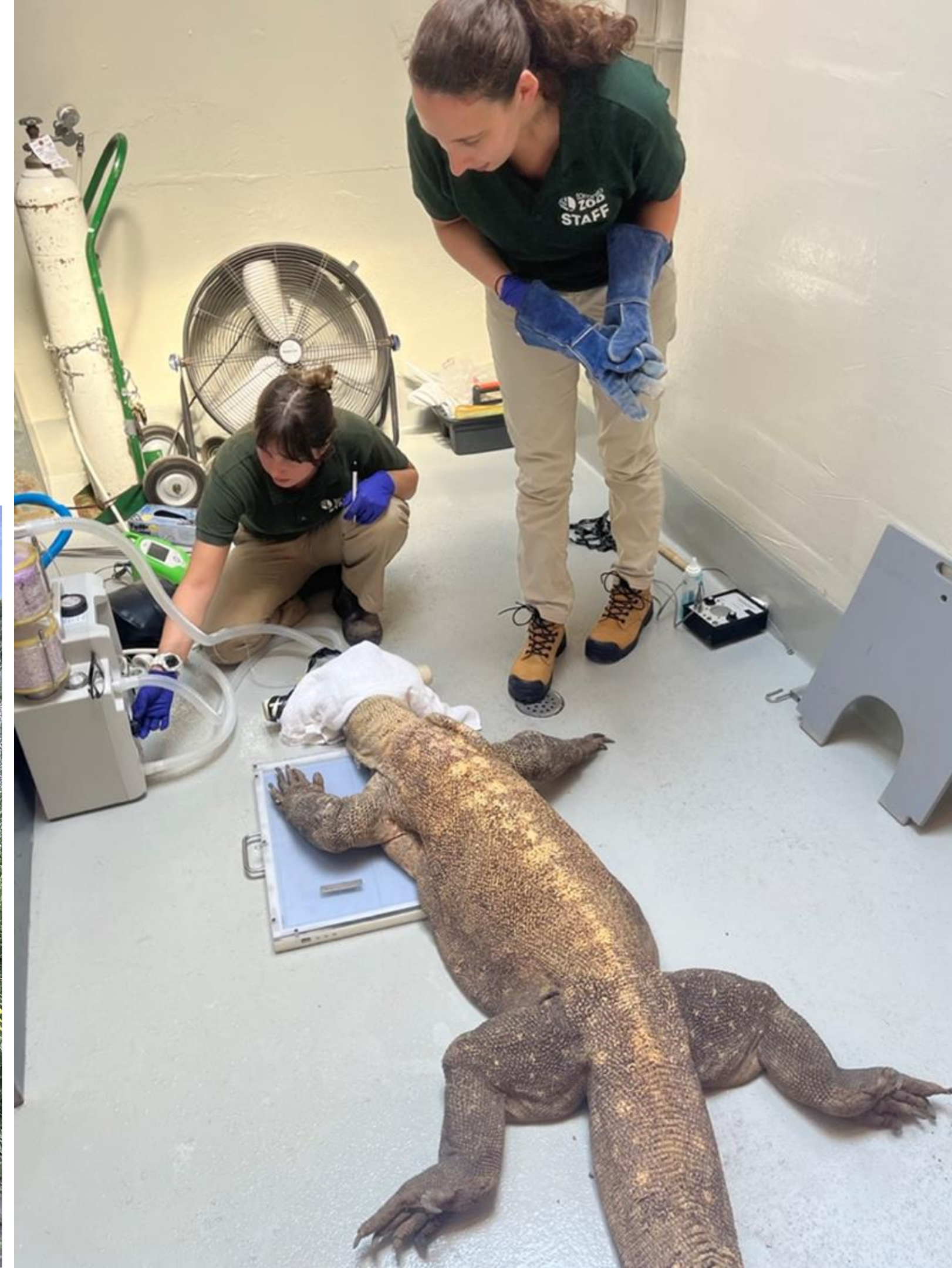
Non-Paying (617)

Others (104)

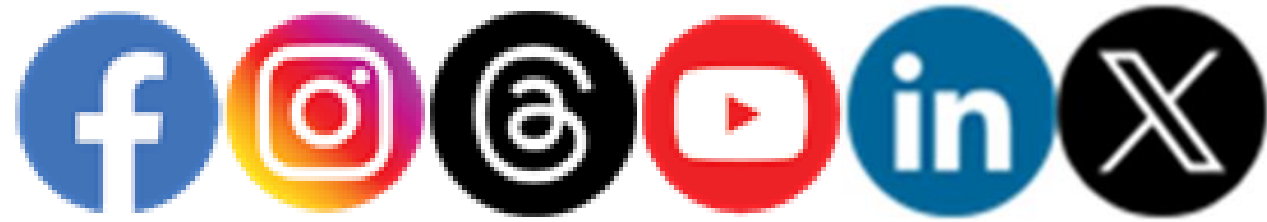
Daily Attendance Year-to-Date	Weekdays	Weekends/Holidays
Peak	8,624	6,998
Average	988	2,313

Conservation in action

Technology is an enabler of conservation, wildlife care and research activities on site and in the field



Engagement and conservation science education



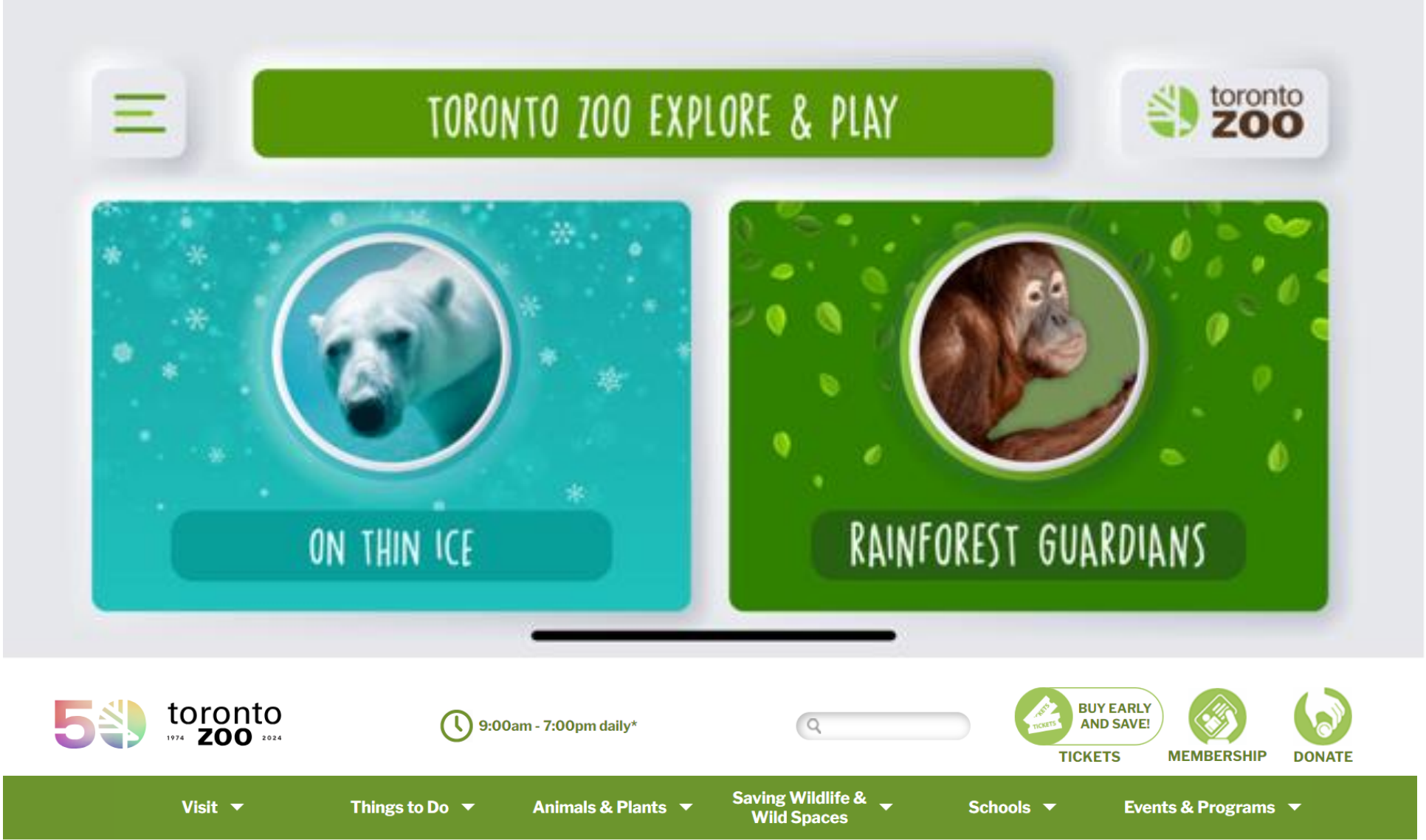
ZOO TO YOU Virtual Experiences

Looking for a fun and safe way to bring the Zoo to your own learning space?

Whether you're learning from home or in the classroom, check out our virtual learning opportunities below.



Interactive and immersive experiences



Toronto Zoo Live Cameras

Hosted by **zoolife**

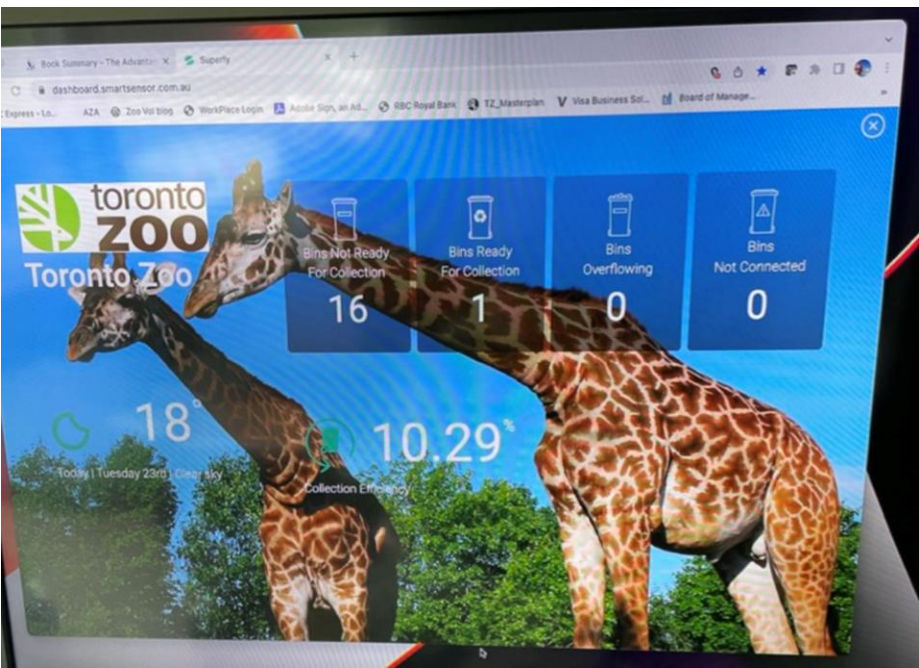


Sustainable technologies

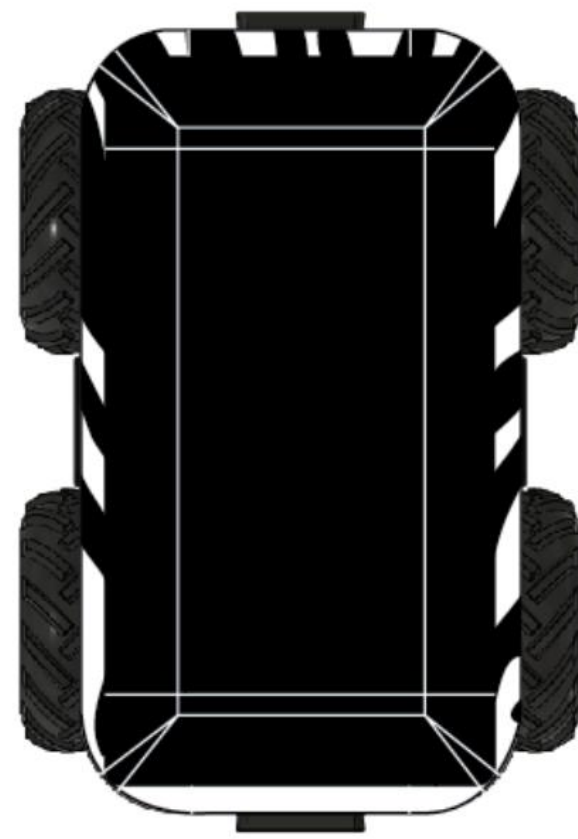
Mobility Solutions

Energy Retrofits

Waste Management



Introducing BUBS



MEET BUBS

A CUSTOMIZABLE ROBOTICS PLATFORM

Weather Resistant

The shell, structure, and internal circuitry have been designed and protected to withstand varying weather conditions.

Thermally Insulated

The walls of the cabin are thermally insulated to keep the contents at the desired temperature.

Suspensions for Rough Terrain

The suspension has shocks on all tires and has differential steering, allowing for better control and mobility over rough terrains.

Locking Cargo Cabin

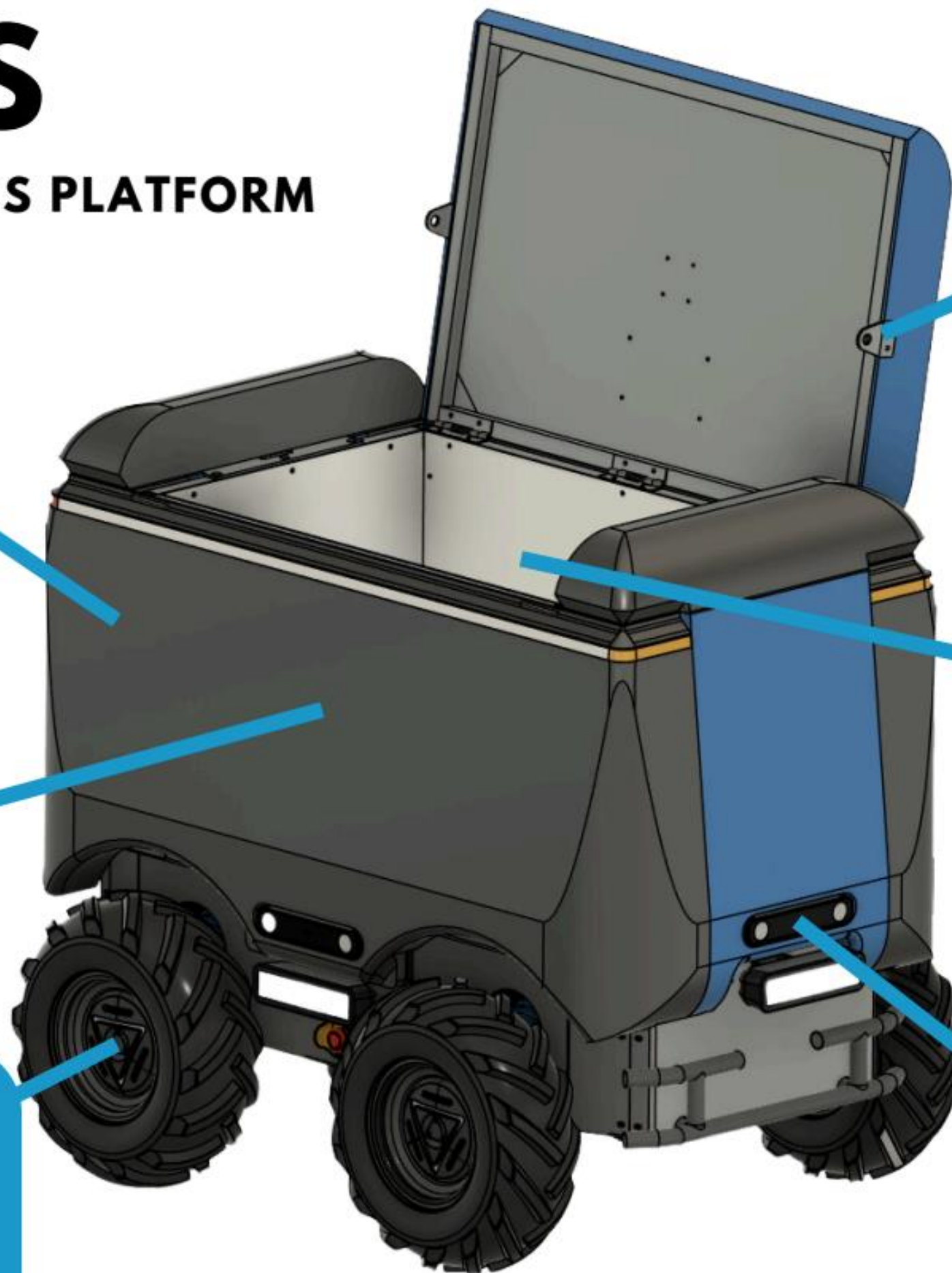
Secure locking system requiring authentication for unlocking and protects the packages from unwanted access.

Large Capacity

The cabin space was customized to fit the large meal delivery ULINE plastic totes at the zoo with > 90 L capacity.

Powerful Sensors & Autonomous

Equipped with 4 stereo cameras providing a 360-degree point cloud, 2 dedicated cameras for teleoperation, GPS-based navigation and 5G connectivity, and onboard LED lighting.





Where we are going...



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Pushing forward...

- Prioritizing cybersecurity
- Optimizing new systems
- Integrating analytics and AI into Zoo operations and research
- Showcasing the Zoo as a testbed for emerging technologies
- Re-establishing the Technology Advisory Group



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