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REVOLUTIONIZING SPINE SURGERY

PAT MILES, CHAIRMAN & CEO

JANUARY 10, 2024

FORWARD LOOKING STATEMENTS

This presentation contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995 that involve risks and uncertainty. Such statements are based on management's current expectations and are subject to a number of risks and uncertainties that could cause actual results to differ materially from those described in the forward-looking statements. The Company cautions investors that there can be no assurance that actual results will not differ materially from those projected or suggested in such forward-looking statements as a result of various factors. Forward-looking statements include, but are not limited to: references to the Company's revenue, balance sheet, growth, and financial outlook and commitments; planned product launches, introductions, regulatory submissions or clearances; efforts to transform sales channel; the Company's ability to compel surgeon adoption; and the Company's ability to finance its operations and sufficiency of its cash runway. Important factors that could cause actual operating results to differ significantly from those expressed or implied by such forward-looking statements include, but are not limited to: the uncertainty of success in developing new products or products currently in the pipeline; the uncertainties in the Company's ability to execute upon its strategic operating plan; the uncertainties regarding the ability to successfully license or acquire new products, and the commercial success of such products; failure to achieve acceptance of the Company's products by the surgeon community; failure to obtain FDA or other regulatory clearance or approval or unexpected or prolonged delays in the process; continuation of favorable third-party reimbursement; unanticipated expenses or liabilities or other adverse events affecting cash flow or the Company's ability to achieve profitability; uncertainty of additional funding; product liability exposure; an unsuccessful outcome in any litigation; patent infringement claims; claims related to the Company's intellectual property; and the Company's ability to meet its financial obligations. A further list and description of these and other factors, risks and uncertainties can be found in the Company's most recent annual report, and any subsequent quarterly and current reports, filed with the Securities and Exchange Commission. ATEC disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events, or otherwise, unless required by law.

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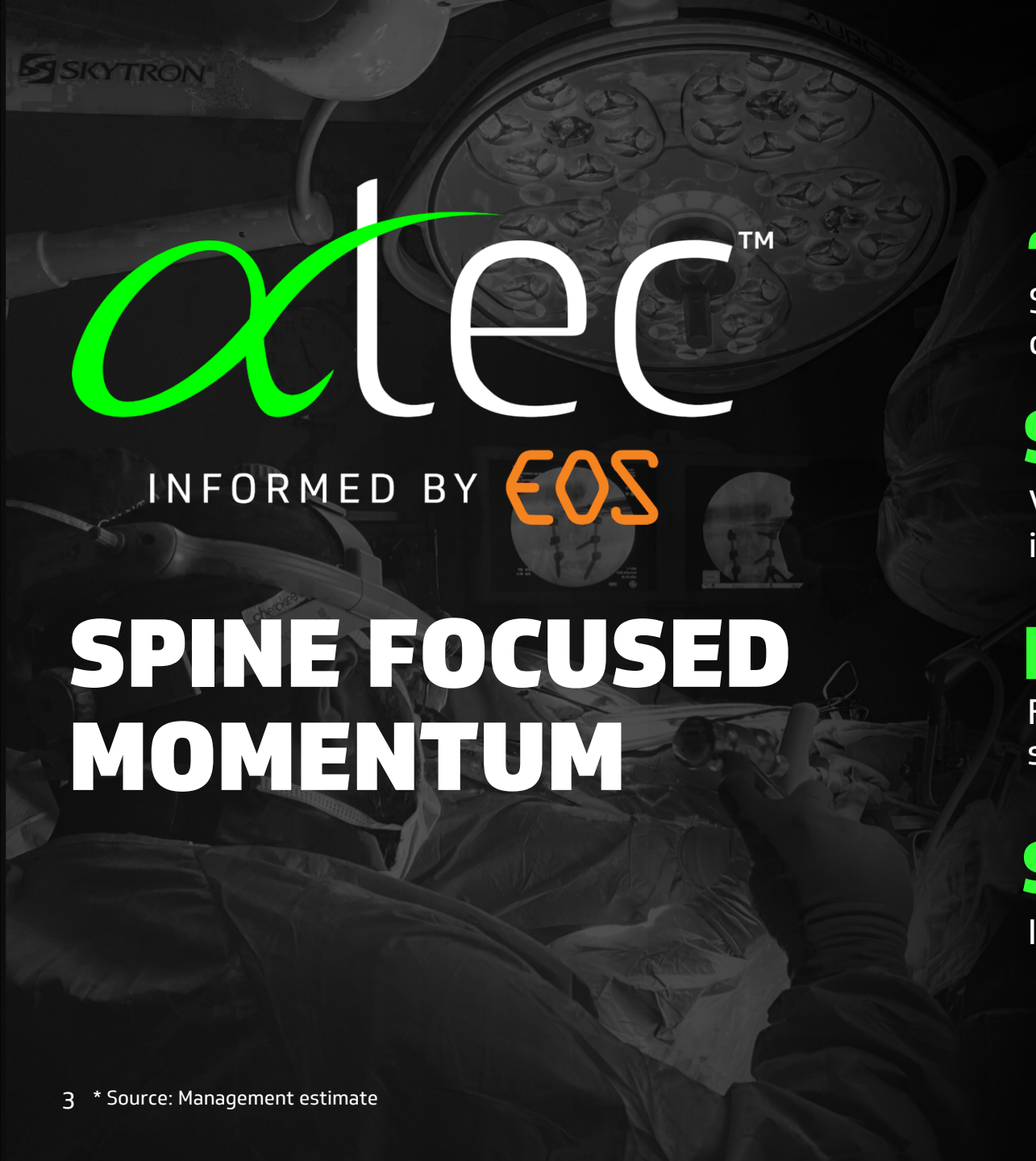

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SPINE FOCUSED MOMENTUM

~40% REVENUE CAGR

Sector-leading, 5-year revenue CAGR fueled by clinical distinction-driven market share expansion

$8B MARKET *

Vast need for effective care & predictable outcomes is not being met by unfocused conglomerateurs

PROFITABLE SALES GROWTH

Fueling path to cash flow break even in 2025, which, with strong balance sheet, will support self-funded future growth

SIGNIFICANT CATALYSTS

Incremental volume growth driven by:

- Lateral expansion
- Market disruption
- Enabling tech launches
- International strategy
- Deformity innovation

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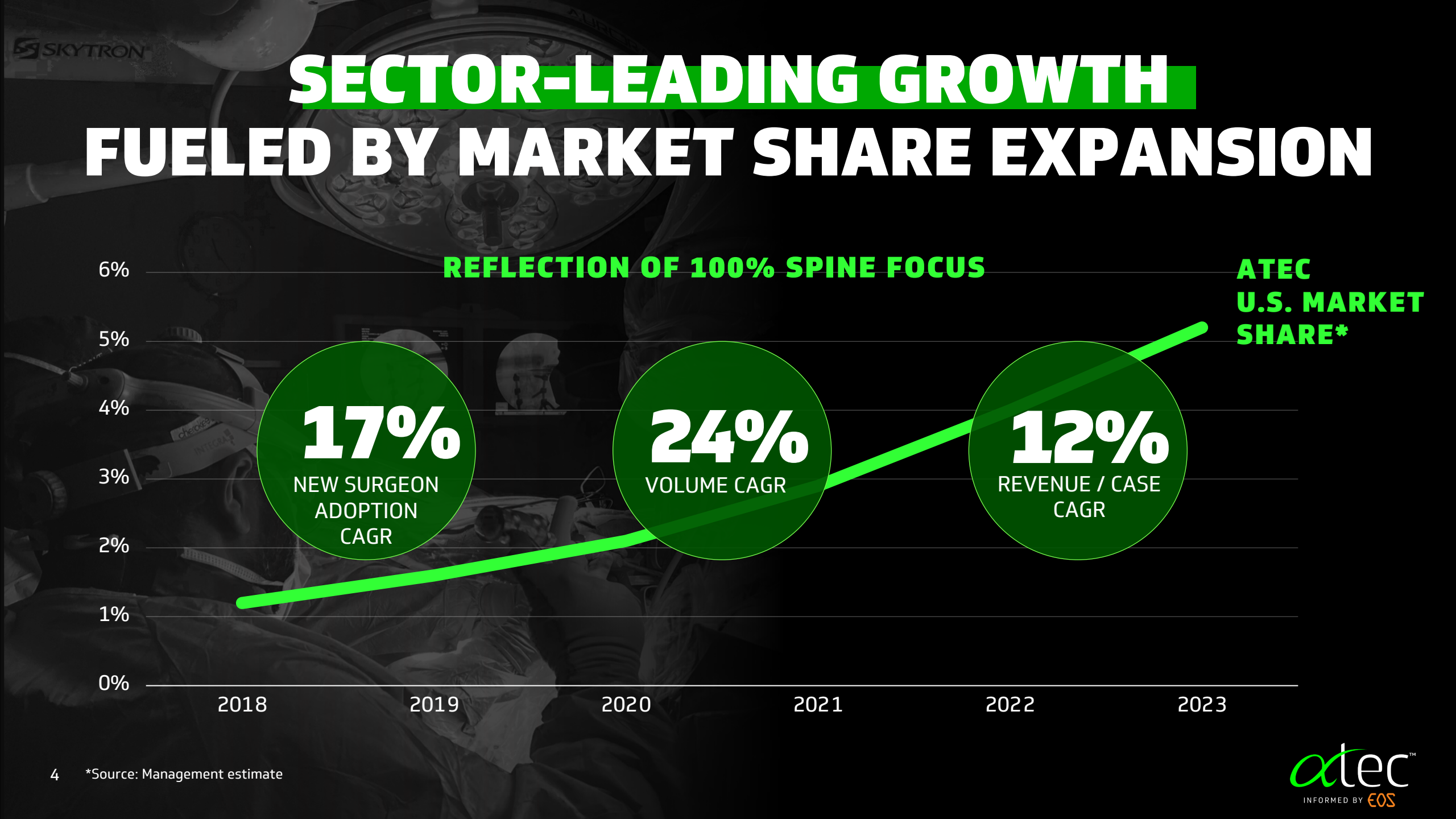
* Source: Management estimate

SECTOR-LEADING GROWTH FUELED BY MARKET SHARE EXPANSION



*Source: Management estimate

2023 WAS NO EXCEPTION

Volume growth accelerated from 25% in 2022 to 31% in 2023, positioning us well for 2024

	Q4 2023*	YoY	FY 2023*	YoY
Surgical Revenue	$122M	34%	$423M	39%
EOS Revenue	$15M	5%	$59M	24%
TOTAL REVENUE	**$138M**	**30%**	**$482M**	**37%**

2024 REVENUE GUIDANCE: $595M, 24% GROWTH

* Numbers and percentages may not foot due to rounding. Assumes the mid-point of expected range provided in ATEC press release dated 1.08.24. Reference appendix for additional detail. Preliminary, unaudited revenue results are based on expectations as of 1.08.24 and may be adjusted as a result of, among other things, completion of customary annual audit procedures.

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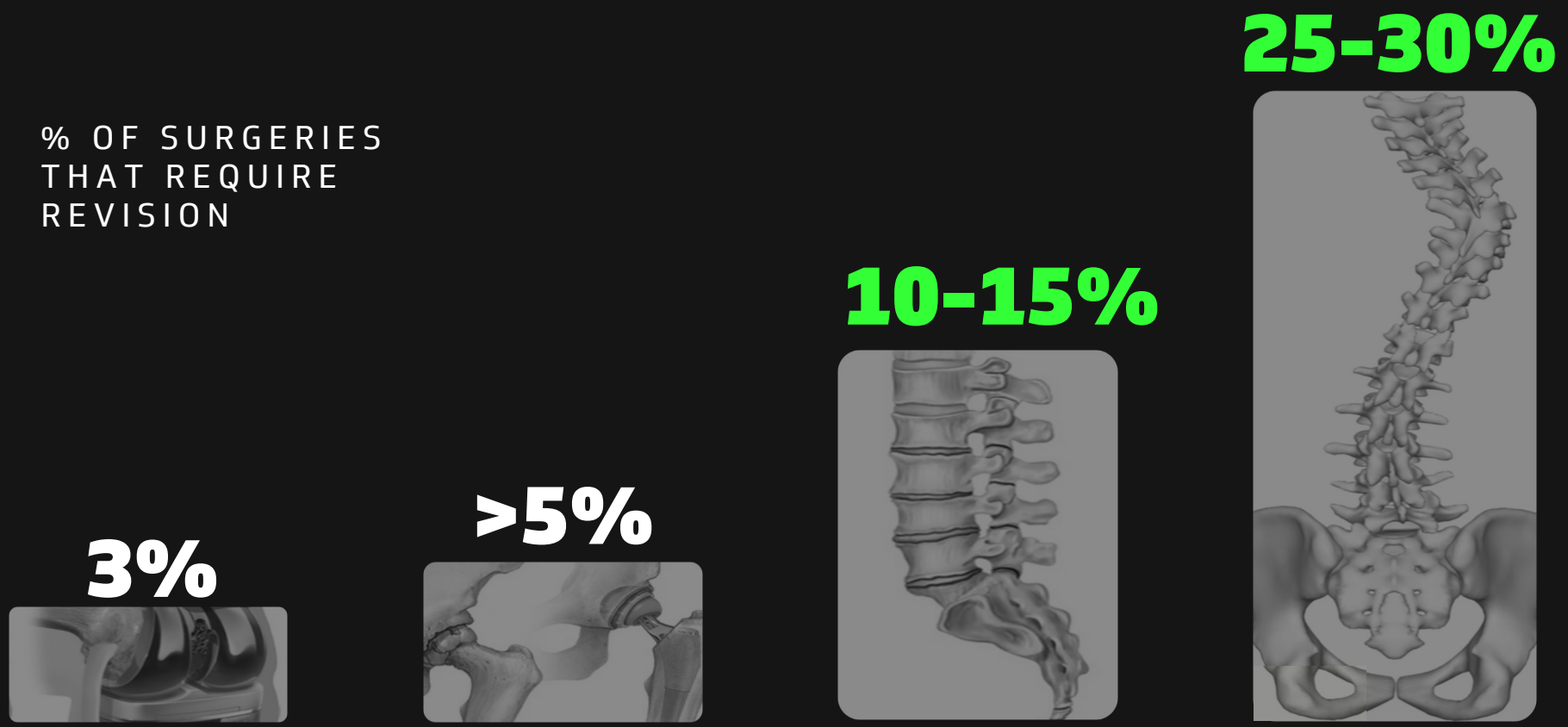
OUR VALUE CREATION OPPORTUNITY

Spine science isn't settled = significant room to improve surgery with holistically integrated technology

% OF SURGERIES THAT REQUIRE REVISION



1 .Bhandari M, et al. Clinical and economic burden of revision knee arthroplasty. Clin Med Insights Arthritis Musculoskelet Disord. 2012;5:89-94

2. Kandala N, et al. Setting benchmark revision rates for total hip replacement: analysis of registry evidence BMJ 2015; 350 :h756

3. Ulrich NH, et al; Lumbar Stenosis Outcome Study Group. Incidence of Revision Surgery After Decompression With vs. JAMA Netw Open. 2022 Jul 1;5(7):e2223803.

4. Kao FC, Hsu YC, Wang CB, Tu YK, Liu PH. Short-term and long-term revision rates after lumbar spine discectomy versus laminectomy: a population-based cohort study. BMJ Open. 2018 Jul 17;8(7):e021028

5. Burke JF, et al. Failure in Adult Spinal Deformity Surgery: A Comprehensive Review of Current Rates, Mechanisms, and Prevention Strategies. Spine (Phila Pa 1976). 2022 Oct 1;47(19):1337-1350

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FASTEST GROWING SPINE PURE-PLAY

Market seeking better outcomes is dominated by unfocused conglomerateurs

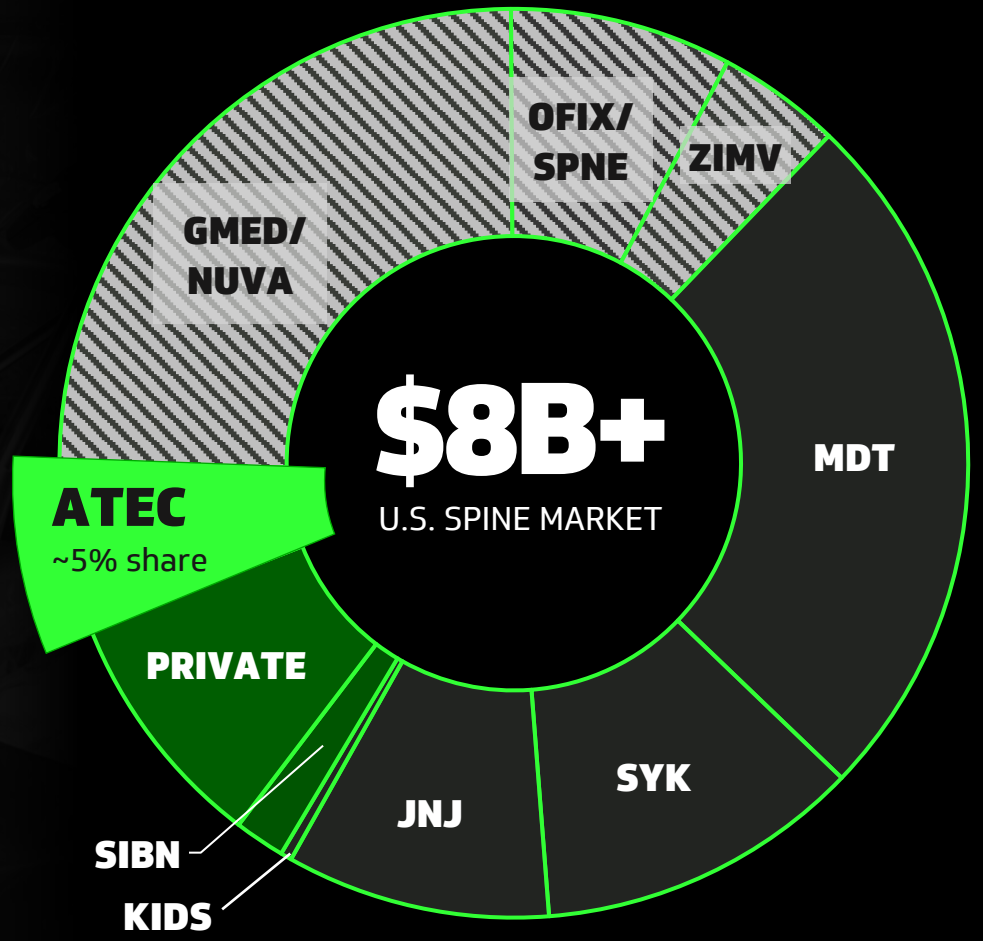
>35% **of market recently disrupted**

Conglomerateurs are recognizing that winning in spine requires 100% focus

100% SPINE FOCUSED

NOT 100% SPINE FOCUSED

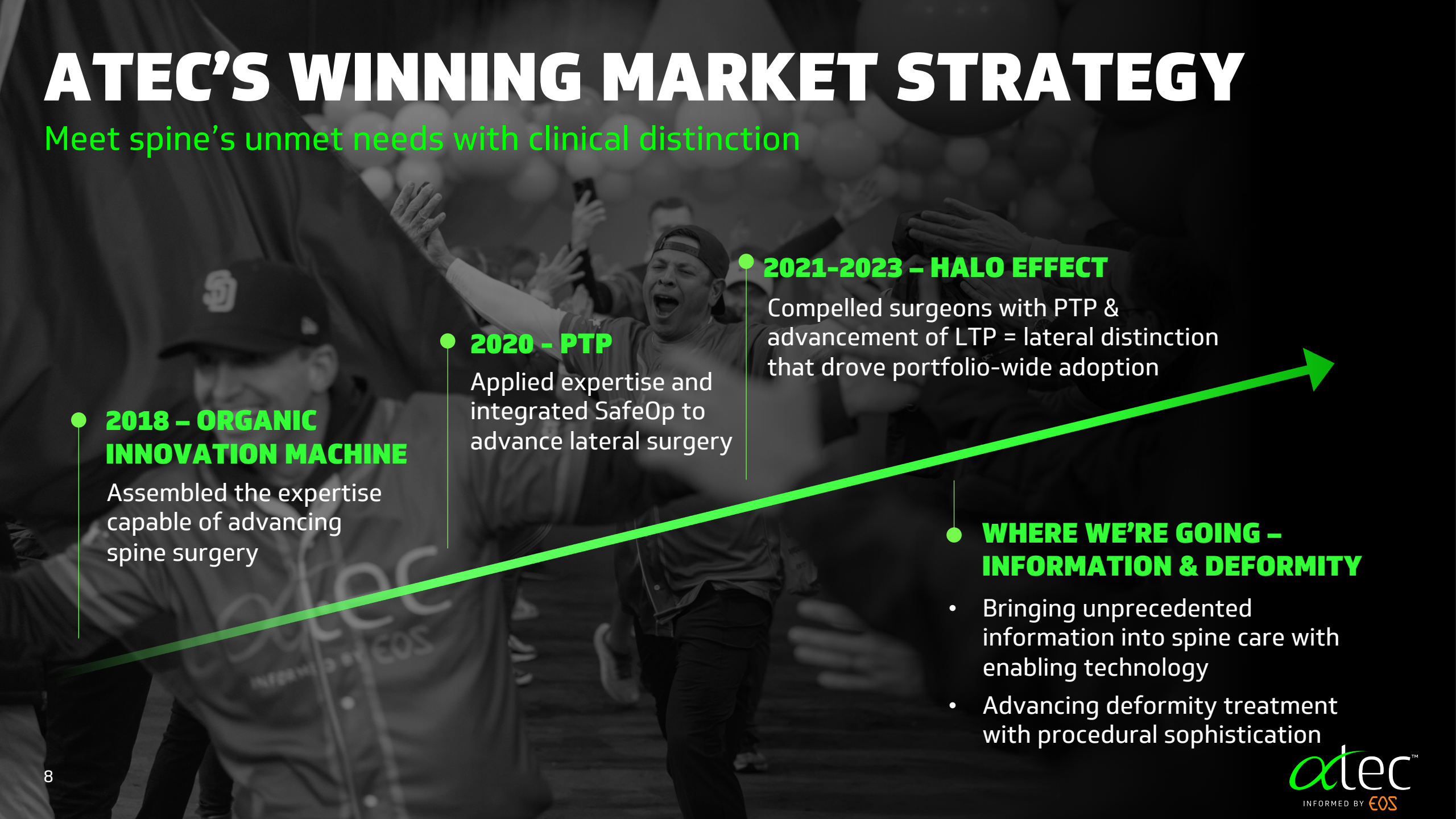
RECENTLY DISRUPTED



* Source: Management estimate

ATEC'S WINNING MARKET STRATEGY

Meet spine's unmet needs with clinical distinction



2018 – ORGANIC INNOVATION MACHINE

Assembled the expertise capable of advancing spine surgery

2020 – PTP

Applied expertise and integrated SafeOp to advance lateral surgery

2021-2023 – HALO EFFECT

Compelled surgeons with PTP & advancement of LTP = lateral distinction that drove portfolio-wide adoption

WHERE WE'RE GOING – INFORMATION & DEFORMITY

- Bringing unprecedented information into spine care with enabling technology
- Advancing deformity treatment with procedural sophistication

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ATEC IS DIFFERENT

100%
Spine focus

KNOWHOW
Unmatched mechanical & neuromonitoring expertise

CLINICAL DISTINCTION
Compelling surgeons & talent with innovation that advances surgery

PROCEDURALIZATION
Innovating to bring full procedures to market, not just the highest $-value components

INFORMATION
Integrating unprecedented objective data to improve outcomes

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WHY DOES 100% SPINE FOCUS MATTER?

ATEC INNOVATION COMES FROM THE OPERATING ROOM

NOT THE BOARD ROOM

UNMATCHED, COMMITTED SPINE KNOWHOW

Applying learnings of collective expertise to create value



PAT MILES
President, Chairman & CEO

NUVASIVE Medtronic smith&nephew



CRAIG HUNSAKER
EVP, People & Culture

NUVASIVE GENERAL ATOMICS MINTZ Columbia Law School



TODD KONING
Chief Financial Officer

MASIMO NUVASIVE ELLIPSE



SCOTT LISH
Chief Operating Officer

NUVASIVE ZIMMER BIOMET Your progress. Our promise.



LUIZ PIMENTA
Chief Medical Officer

NUVASIVE ipc



KELLI HOWELL
EVP, Clinical Strategies

NUVASIVE Beth Israel Deaconess Medical Center



DAVID SPONSEL
EVP, Sales

stryker Medacta



ALI SHOROOGI
SVP, Marketing

NUVASIVE casetabs



JOSEPH WALLAND
SVP, Global Imaging

MEDICREA stryker



TYSON MARSHALL
GC & Corporate Secretary

MADCATZ MORRISON FOERSTER



ERIC DASSO
EVP, Adjunctive Technologies

NUVASIVE

NEW TO ATEC SINCE LATE 2017

100% Executive management

96% of employees

92% of BOD

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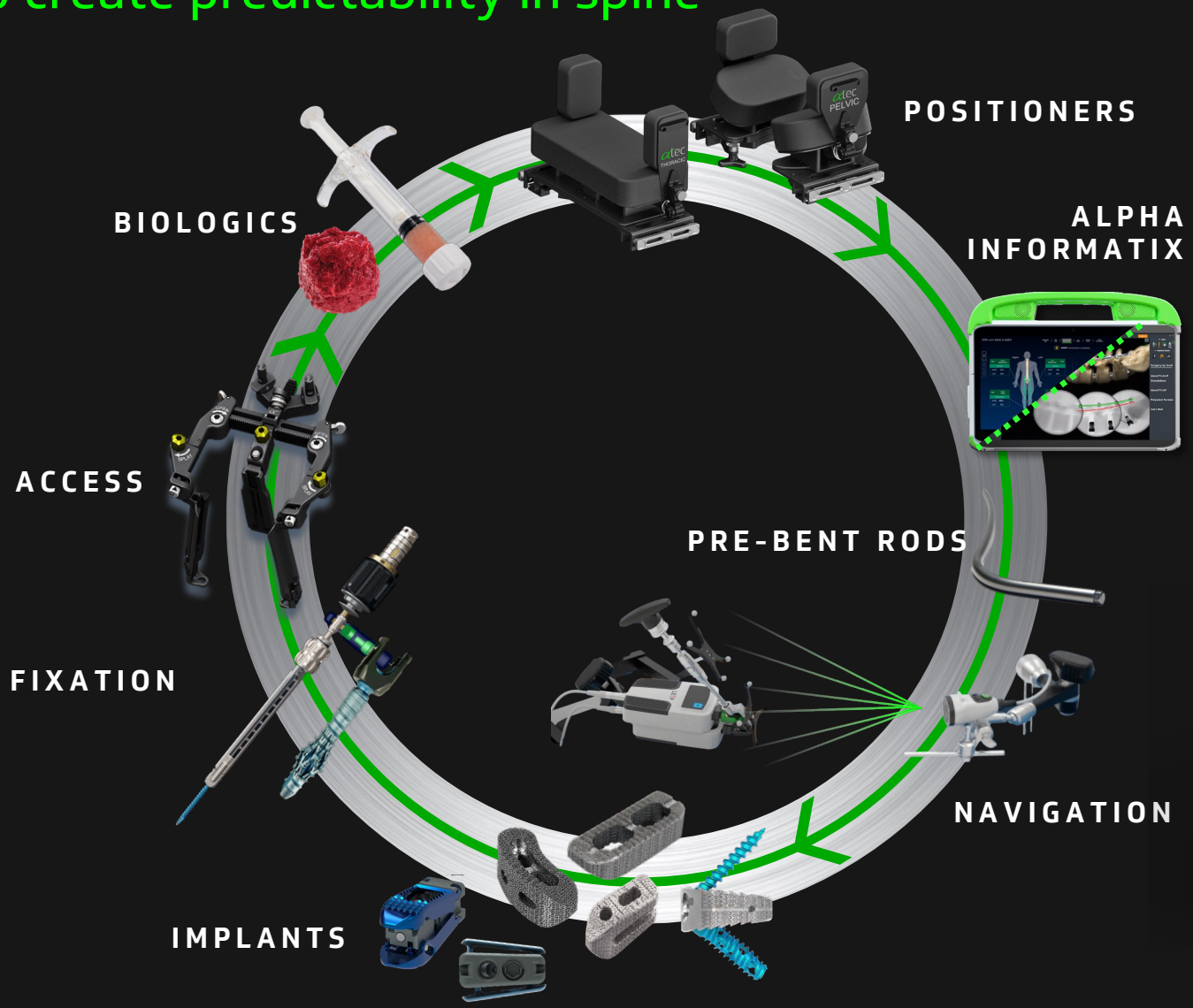
PROCEDURALIZATION

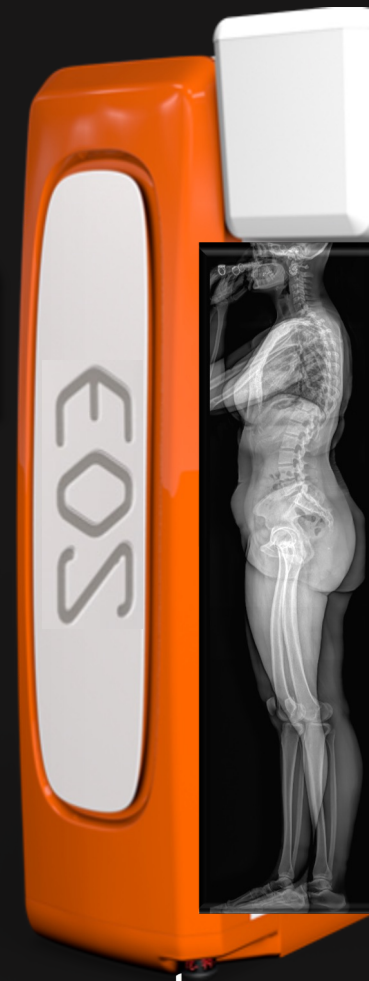
INTEGRATING technology to create predictability in spine

We design, develop and integrate technology to **address the goals of spine surgery**:

- Decompression
- Stabilization
- Alignment

specific to each approach.





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WE COMPEL WITH CLINICAL DISTINCTION

Our existential interest in improving surgery is **shared** by the surgeons & talent we compel

CLINICAL DISTINCTION

Industry-leading expertise applied to advance spine care with procedures redesigned from the ground up and integrated with enabling technology



SURGEON ADOPTION

More surgeon users + increasing utilization of ATEC solutions

LEADING SALES TALENT

Distinction and unmatched growth have positioned ATEC as the most attractive company in spine to work for

GOOD SURGERY IS GOOD BUSINESS

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DECADES OF EXPERTISE APPLIED TO ADVANCE LATERAL SURGERY

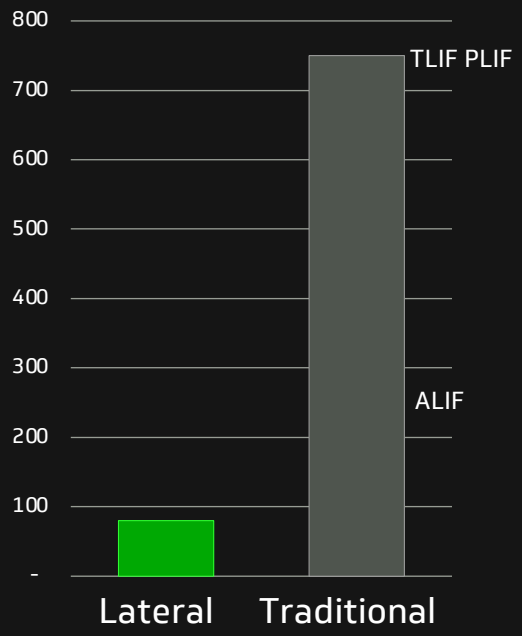
Improving an approach with significant, clinically validated advantages

>500

PEER-REVIEWED CLINICAL PUBLICATIONS ON LATERAL

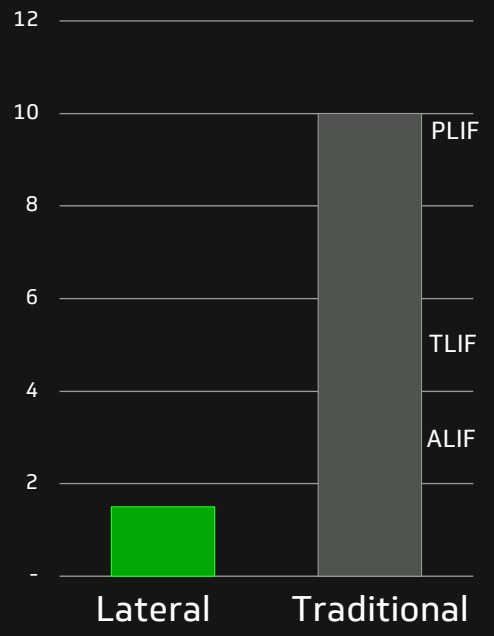
BLOOD LOSS*

cc/ level

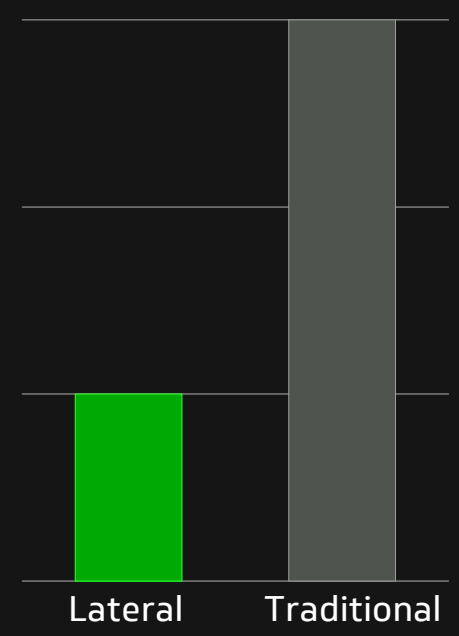


HOSPITAL STAY*

days



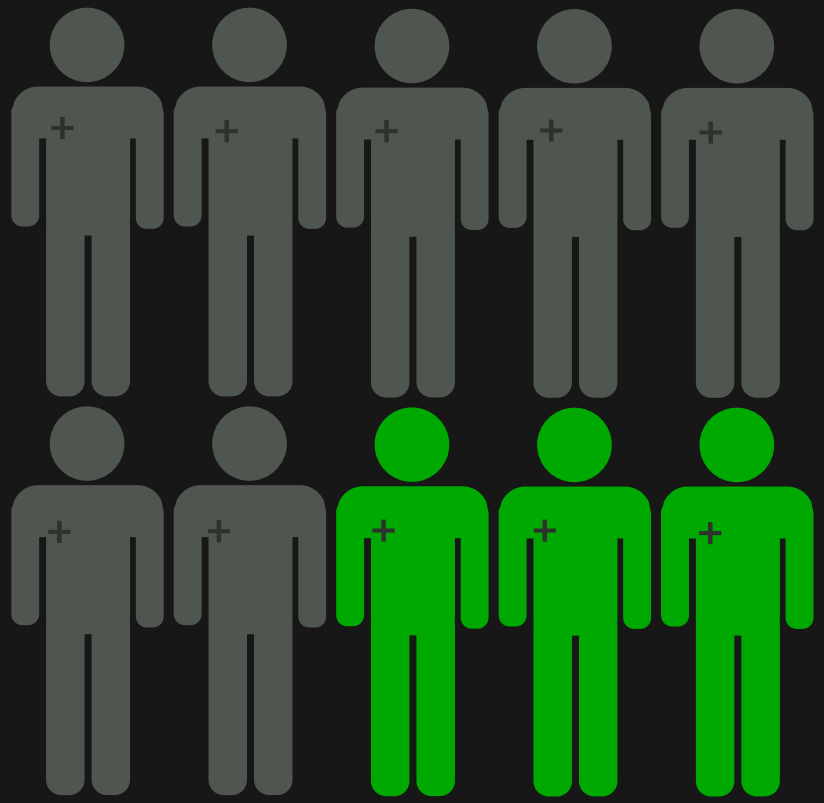
DAYS UNTIL WALKING*





* Source data on file

WHY DID FIRST-GEN ADOPTION STALL AT JUST ~30% OF SURGEONS?*



- Neural complications
- Lack of familiarity with approach/ position
- Unable to directly decompress
- Inefficient posterior fixation, pedicle screw breach rate
- Patient repositioning/ room turnover requirements
- Uncontrollable patient position
- Lack of sagittal correction
- Limited to short constructs

WE DESIGNED PTP TO ADDRESS THESE CHALLENGES

* Management estimate

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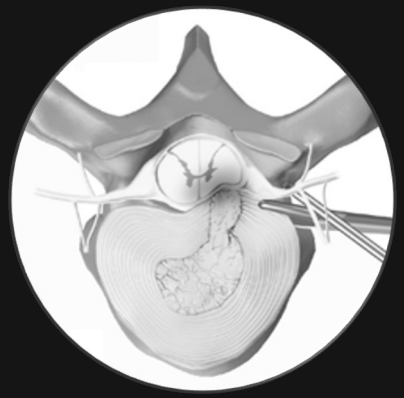
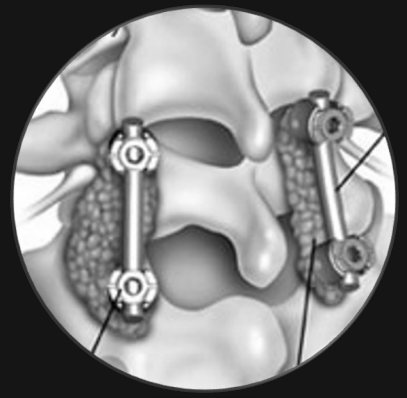
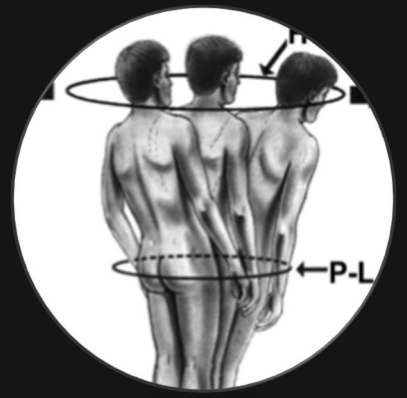
FIRST-GEN LATERAL: HURDLES TO ADOPTION

Minimally invasive = minimally effective (compromise required)

	DECOMPRESSION	STABILIZATION	ALIGNMENT
			CONE OF ECONOMY 
First-gen lateral:	Indirect	Difficult	Challenging

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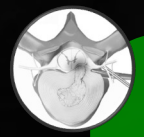
PTP™ ADDRESSES THE GOALS OF SPINE SURGERY

PRONE TRANSPSOAS

No compromise required



DECOMPRESSION + STABILIZATION
Simultaneous access to anterior & posterior columns for direct decompression



PREDICTABILITY
Neuromonitoring provides automated information regarding nerve location & health

ALIGNMENT
Position enhances lordosis predictability



REPRODUCIBILITY
Straightforward position simplifies OR set up & eliminates need for tape

REPRODUCIBILITY
Intuitive orthogonality

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ONLY ATEC HAS COMMITTED TO MEET LATERAL'S SPECIFIC REQUIREMENTS

SAFEOP NEURAL INFORMATIX SYSTEM

NEURO-MONITORING

Uniquely monitors *both* location and health of the nerve





PTP™

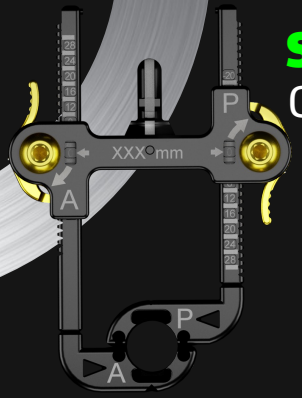
PTP PATIENT POSITIONER

Maximizes benefits of prone position, streamlines OR setup

VALENCE™ ROBOTIC NAVIGATION SYSTEM

NAVIGATION-ENABLED ROBOTICS





SIGMA PTP ACCESS

Customized exposure / orthogonality

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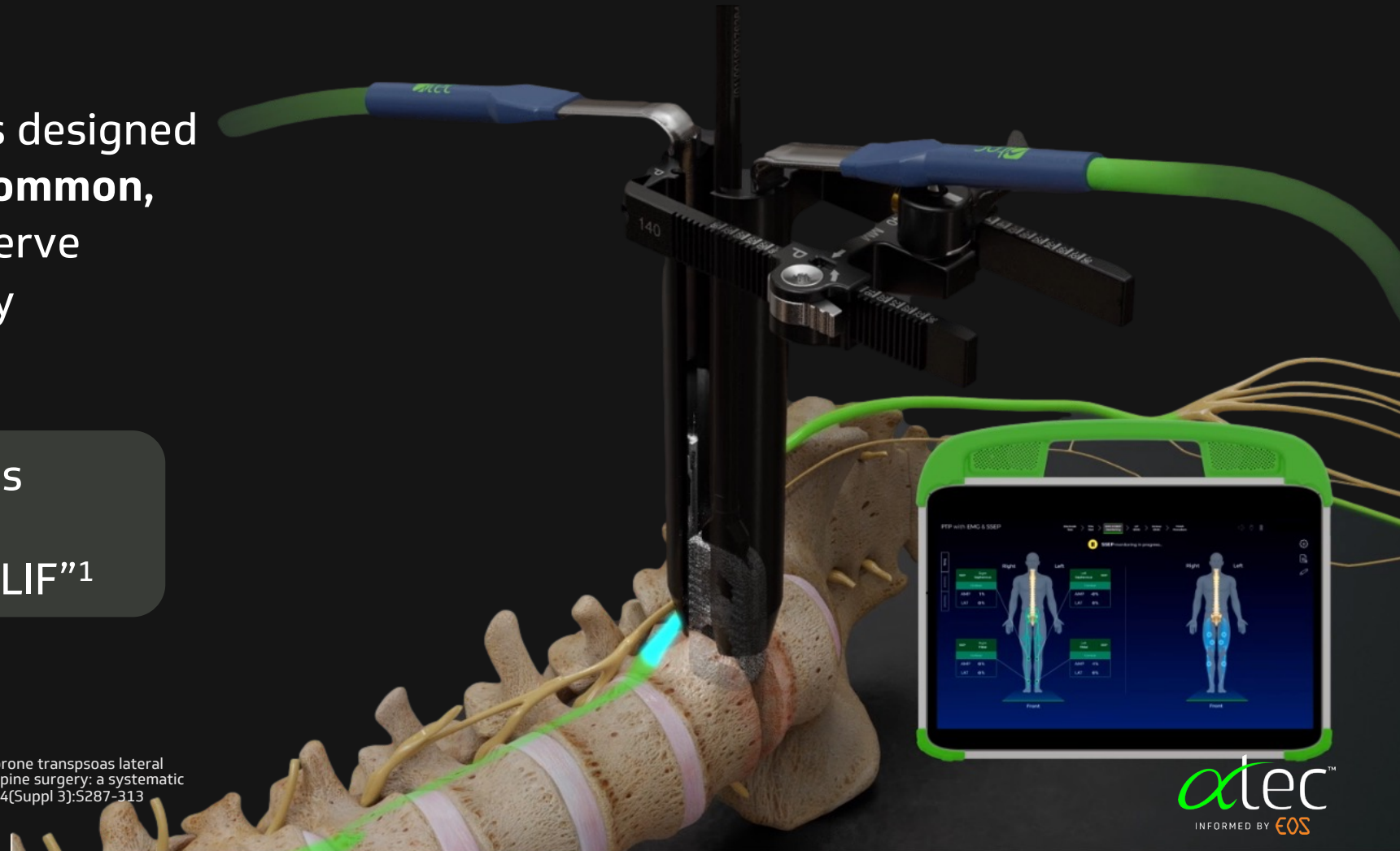
SAFEOP™ NEURAL INFORMATIX SYSTEM

IDENTIFIES REAL-TIME CHANGES IN NERVE HEALTH

Competitive moat in lateral: proprietary SSEPs to advance first –gen neuro-monitoring

Our foundational technology is designed to directly address the **most common, documented risk** of femoral nerve complications in lateral surgery

> “Actionable feedback was **highly predictive** of neurological events during LIF”[1]



1. Tohmeh A et al. Saphenous SSEP monitoring of femoral nerve health during prone transpsoas lateral lumbar interbody fusion. Eur Spine J 2022. 2. Lehmen JA, Gerber EJ. MIS lateral spine surgery: a systematic literature review of complications, outcomes, and economics. Eur Spine J 2015;24(Suppl 3):S287-313

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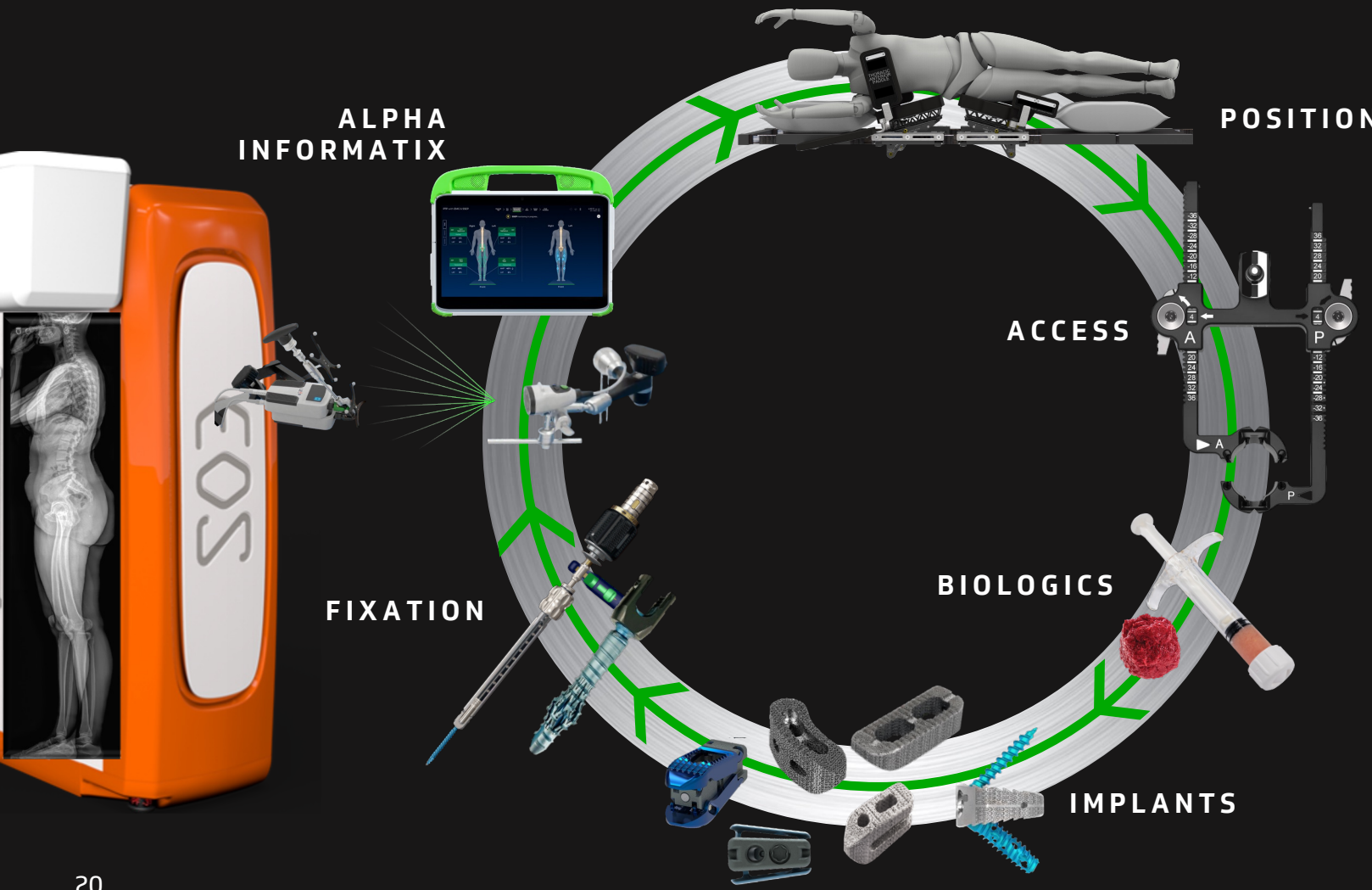
LTP™ LATERAL TRANSPSOAS

EXTENDING LATERAL KNOWHOW

Upgrades first-gen lateral with a procedure designed from the ground up



- SafeOp seamlessly integrated
- Procedure-specific patient positioner
- Position-specific access system
- Expandable lateral implant releasing now
- EOS informatics & workflow-integrated robotic-enabled navigation under development

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LTP™
LATERAL TRANSPSOAS

SINGLE-POSITION SURGERY FOR L3 TO S1: MOST COMMONLY TREATED LEVELS

LATERAL



MIDLINE ALIF



POSTERIOR FIXATION



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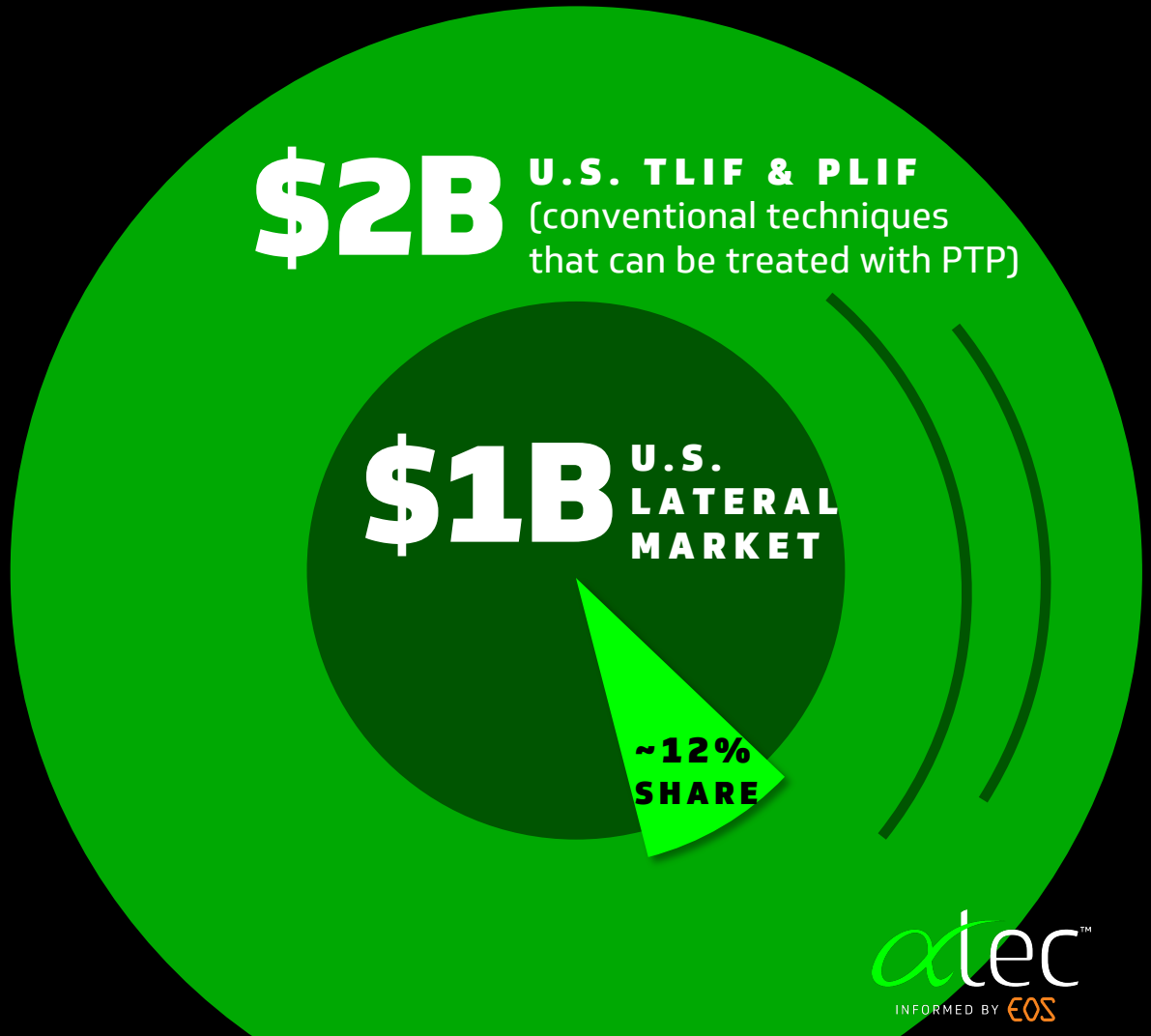
THE LATERAL STANDARD BEARER = MARKET PENETRATION & EXPANSION

ONLY ATEC:

- Committed to improve lateral by better meeting surgical requirements & addressing hurdles
- Integrated SafeOp to avoid the complication most associated with lateral surgery
- Continuously applies learnings to obsolete our last best effort
- Is compelling surgeons accustomed to conventional techniques (PLIF & TLIF)



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HALO EFFECT FROM LATERAL LEADERSHIP

LATERAL CONFIDENCE CREATION EARNS SURGEON TRUST…



LATERAL

PTP™ LTP™

…and expands utilization of our more conventional procedures

PLIF/TLIF	ACDF	POSTERIOR FX
ALIF	PCF	BIOLOGICS

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ATEC LATERAL SOPHISTICATION, ALONE, WOULD BUILD A GOOD COMPANY...



...BUT WE SEEK TO REVOLUTIONIZE SPINE

ATEC IS BUILDING A MONSTER!

THE ATEC INFORMATIC ECOSYSTEM

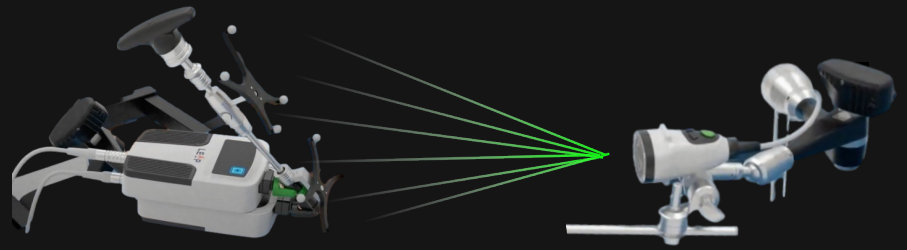
Broadening our competitive moat with enabling technology that better achieves the goals of surgery / improves outcomes

PROPRIETARY PRECISION & PREDICTABILITY FROM PRE-OP TO POST-OP



SAFEOP™
NEURAL INFORMATIX SYSTEM

Real-time monitor of location and health of nerves during lateral surgery



VALENCE™
ROBOTIC NAVIGATION SYSTEM

Navigation-enabled robotic system being integrated into ATEC lateral procedures



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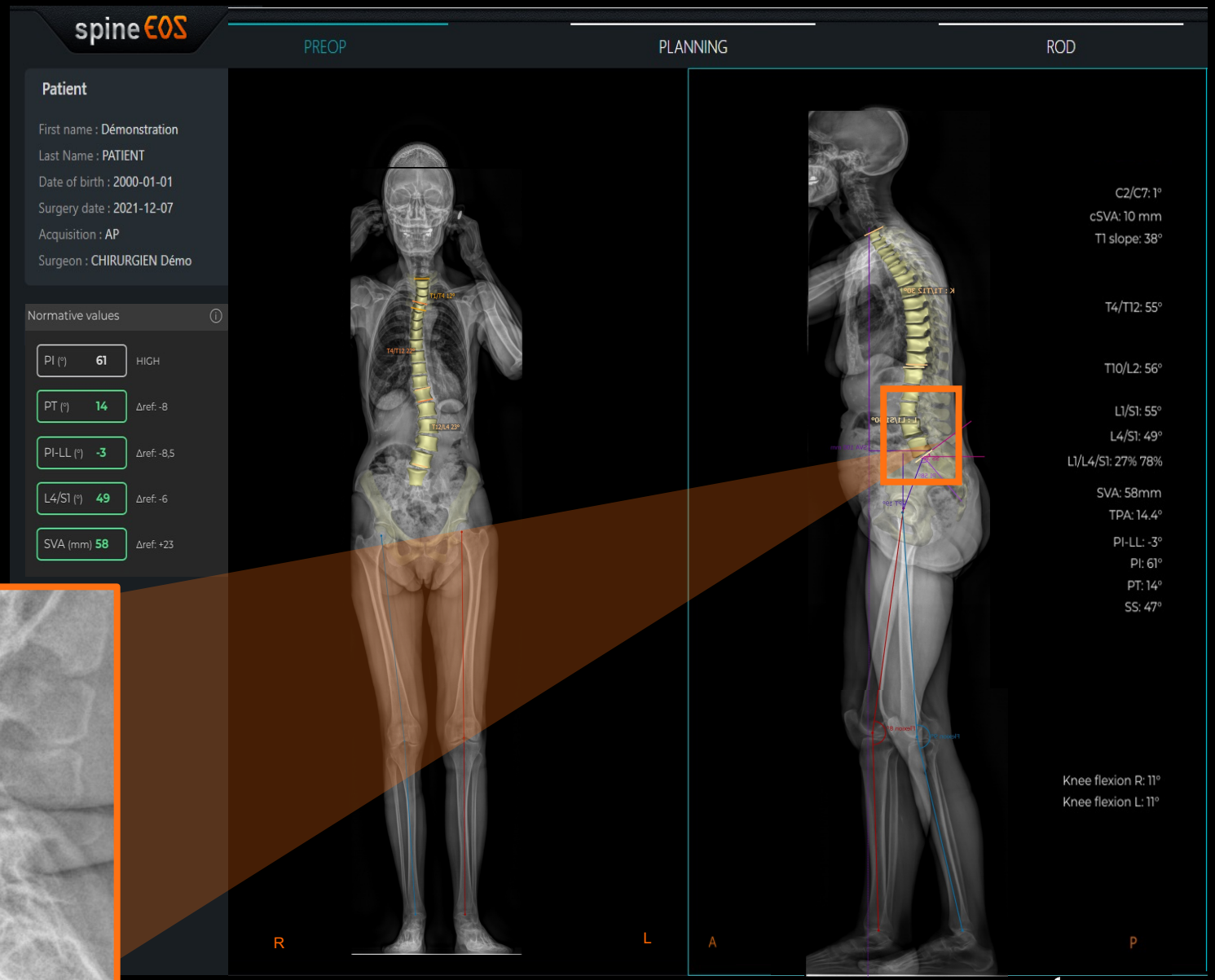
EOS INFORMED IMAGING

- Full-body
- Standing, functional global alignment assessment
- No stitching errors
- No magnification error
- Less radiation – 5x< DR
- Reduced exam time
- 3-D anatomical reconstructions





TODAY, EOS OBJECTIVELY ANSWERS ESSENTIAL CLINICAL QUESTIONS

HOW out-of-alignment is the patient?

WHAT intervention will best achieve surgical goals?

WHERE should the patient be treated?

DID the intervention achieve its goals?



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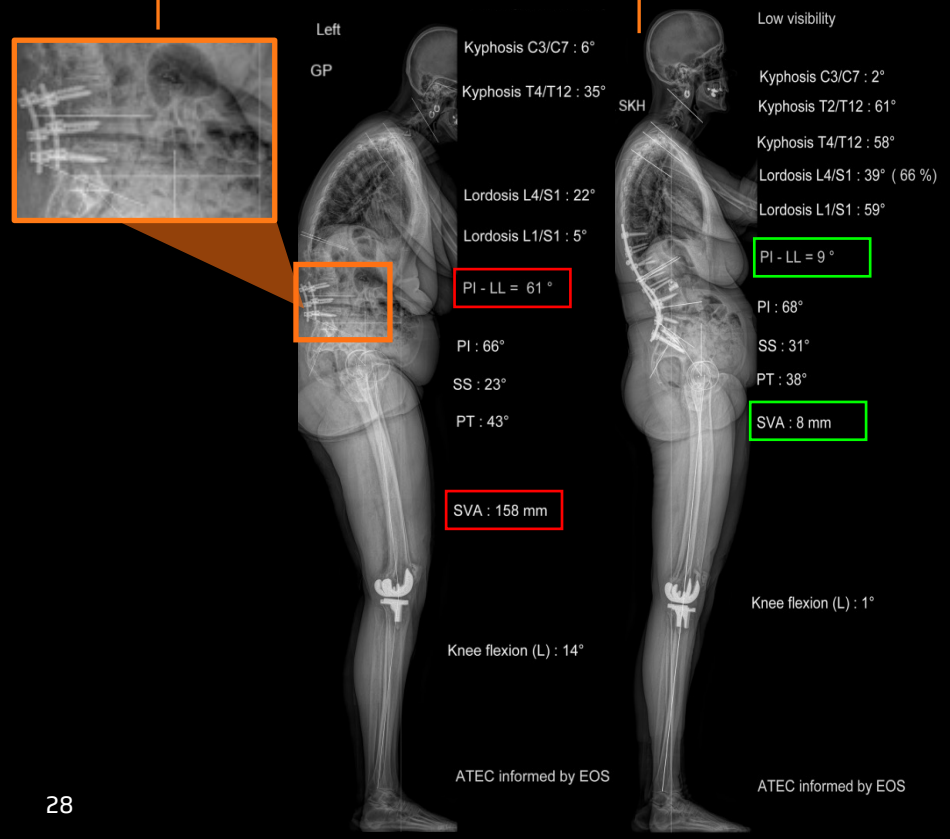
SURGERY WITHOUT EOS = DECISION MAKING BY GESTALT

Radiographic image:
limited view =
limited insight

EOS full body images:
if you can see and measure
it, you can fix it



SPINE'S CHALLENGES

SURGERY RELIES ON SEGMENTAL IMAGING

- Limited view of the problem
- Lack of global alignment measures
- Can lead to misleading findings

UNINFORMED PRE-OP PLAN

- Alignment measures hand calculated
- Time-consuming = scarcely utilized
- Existing software isn't workflow friendly

NO INTRA-OP RECONCILIATION OR ROD-BENDING

- Execution to pre-op plan unknown
- Rods bent intra-operatively

EOS WILL ANSWER MANY OF SPINE'S GREATEST CHALLENGES

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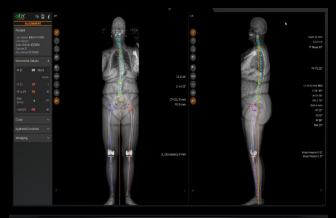
INTRODUCING EOS CATALYST

Reflection of ATEC influence coming mid-2024

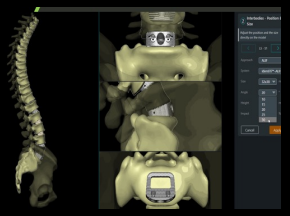


DATA

PRE-OP



Automated surgical planning

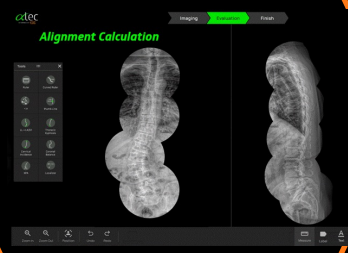


Automated alignment reports

INTRA-OP



Intra-op alignment/ reconciliation



Pre-bent rods

POST-OP



Assessment & follow-up

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AUTOMATED ALIGNMENT INFORMATION INTEGRATED INTO THE PRE-OP PLAN

Planning & rod-bending informed by the requirement **most correlated** to LT outcomes



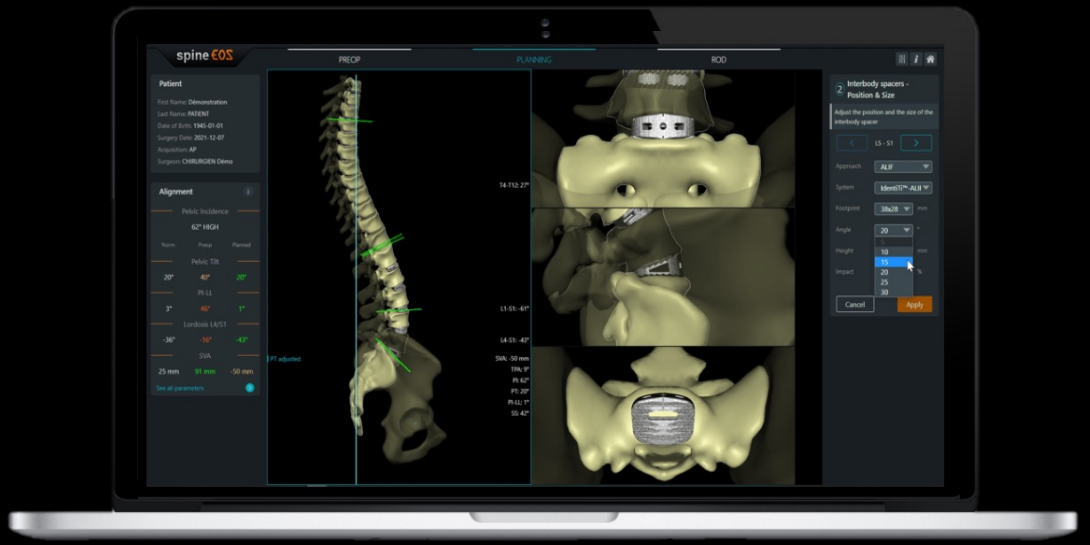
AUTOMATED ALIGNMENT

AI-driven alignment assessment and level labeling available minutes after EOS exam



3D SURGICAL PLANNING

Plans integrate ATEC implants based on 3D model of the patient's spine and alignment



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ALIGNMENT & PLAN RECONCILIATION IN THE O.R. + INFORMED, PRE-BENT RODS



INTRA-OP ALIGMENT

Measures key coronal and sagittal parameters as case progresses





CUSTOMIZED PRE-BENT RODS

Seamless ordering, approval & delivery drives confidence in intra-operative sagittal correction

PRE / POST OP INTEGRATION

Imports surgical plan data for intra-op comparison and exports data for post-op review

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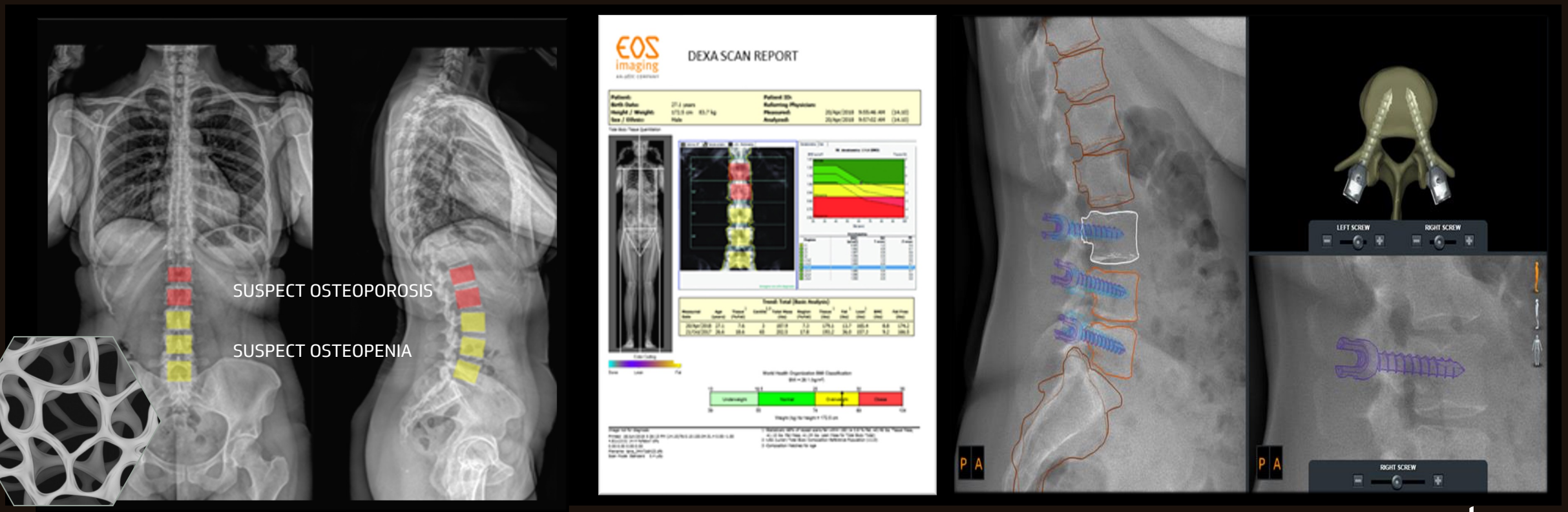
UNDER DEVELOPMENT:
LEVEL-SPECIFIC BONE QUALITY

Patient-specific techniques and tools



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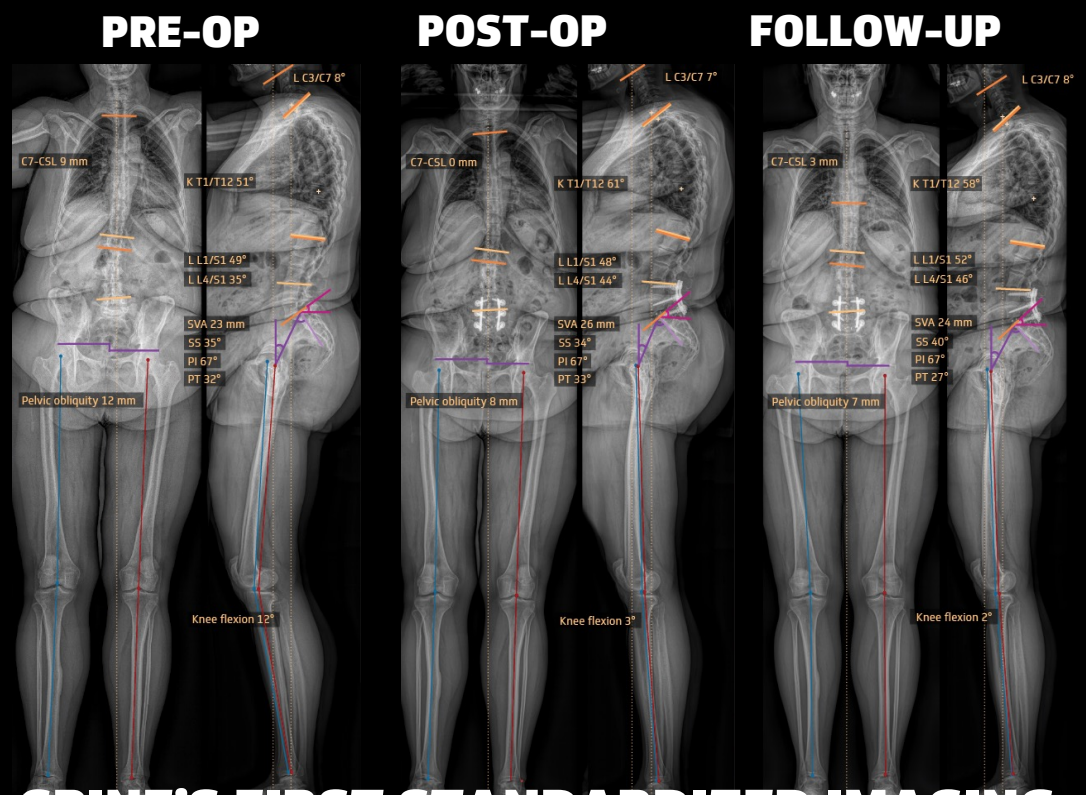
FOUNDATION FOR PREDICTIVE CARE

Uniquely facilitating the end-to-end standardized imaging required for predictive analytics





SPINE'S FIRST STANDARDIZED IMAGING WILL FUEL UNPRECEDENTED INSIGHTS

Capture of ~40K objective datapoints to date (& growing) will inform:

- ✓ Patient follow-up & trends
- ✓ Surgeon practice analytics
- ✓ Living clinical research database
- ✓ Continuous data-derived product improvements
- ✓ Surgical likelihood score
- ✓ Gate analysis

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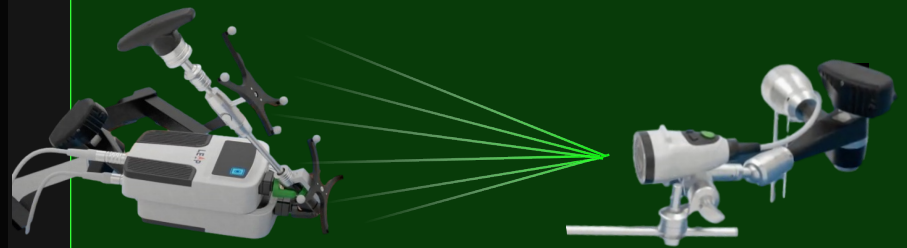
Broadening our competitive moat with enabling technology that better achieves the goals of surgery / improves outcomes

PROPRIETARY PRECISION & PREDICTABILITY FROM PRE-OP TO POST-OP



SAFEOP™
NEURAL INFORMATIX SYSTEM

Real-time monitor of location and health of nerves during lateral surgery



VALENCE™
ROBOTIC NAVIGATION SYSTEM

Navigation-enabled robotic system being integrated into ATEC lateral procedures



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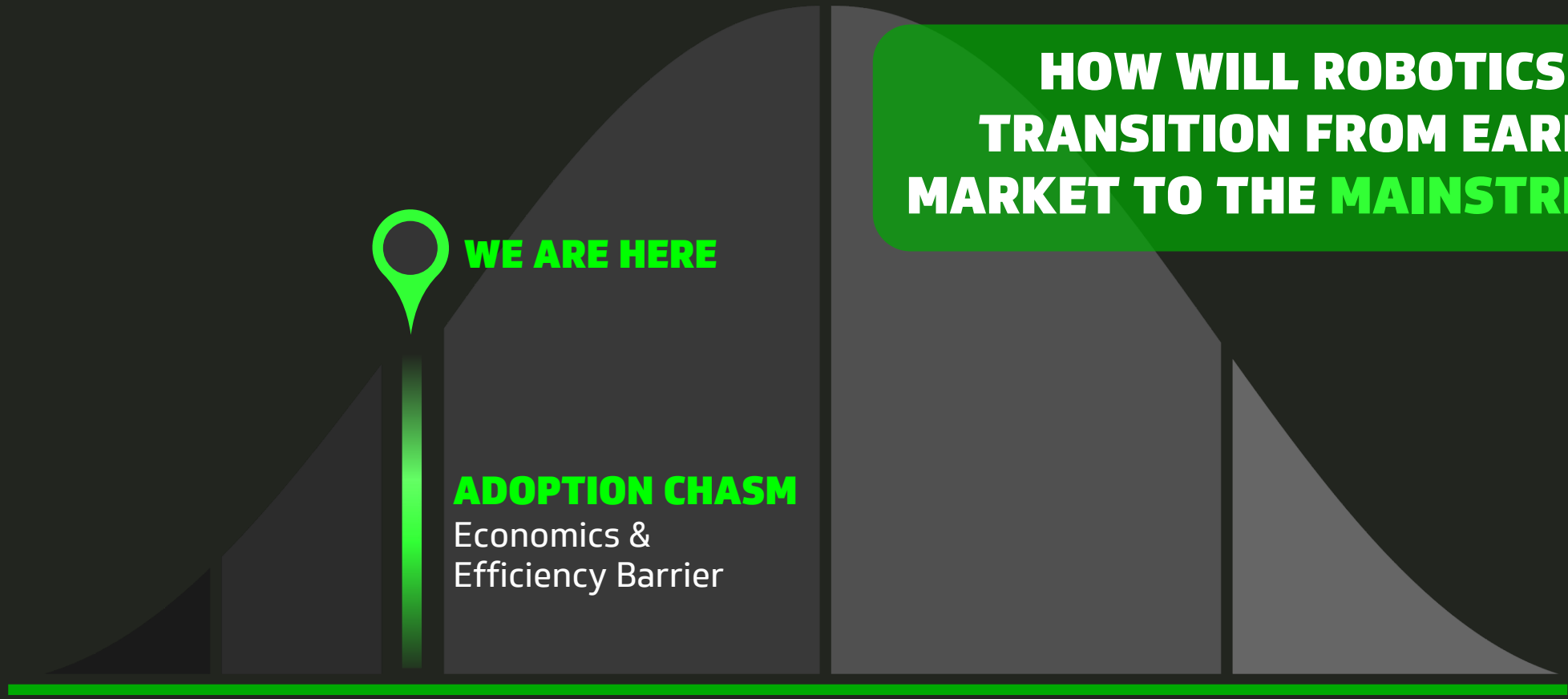
THE SPINE ROBOT ADOPTION LIFE CYCLE

Early solutions facilitate the SAME CARE, more precisely



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VALENCE CAN ADRESS THE ECONOMIC & EFFICIENCY BARRIER

ATEC is positioned to redefine navigation & robotics with practical & economical technology





	VALENCE™ ROBOTIC NAVIGATION SYSTEM	ExcelsiusGPS® REVOLUTIONARY ROBOTIC NAVIGATION | GLOBUS MEDICAL	Mazor Robotics | Medtronic
Efficient workflow	✓	X	X
Doesn't require 3D imaging	✓	X	X
Free-hand navigation	Development required	X	X
ASC suitable	✓	X	X
Quick ROI / Earnout	✓	X	X
Price	<$500K	>$1M	>$1M

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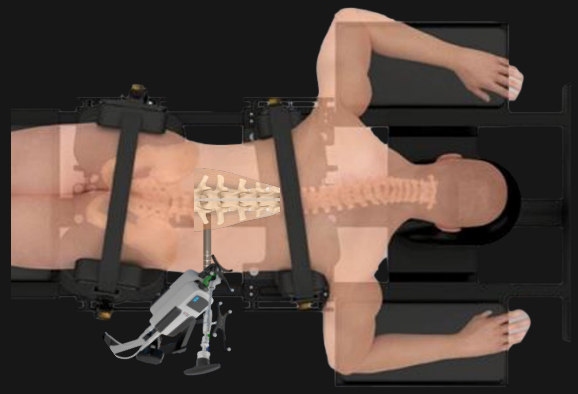
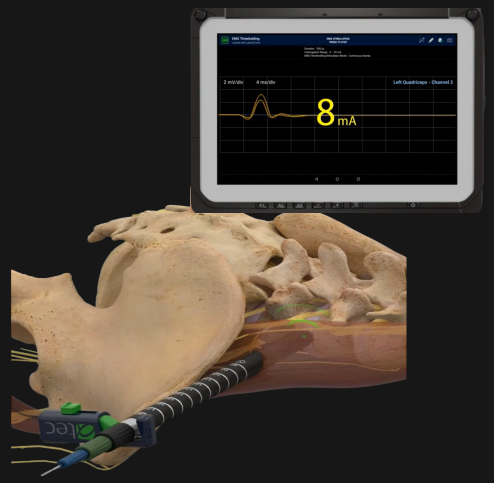
THE ONLY WORKFLOW-INTEGRATED NAVIGATION & ROBOTIC SOLUTION

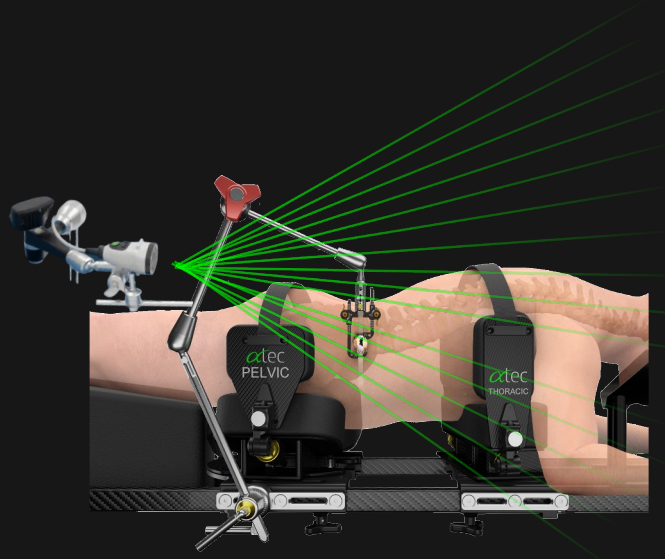
Addresses lateral adoption hurdles: improves predictability & efficiency, reduces radiation exposure

PTP™ EXAMPLE
PRONE TRANSPSOAS









Place robotically navigated, EMG-verified pedicle screws

Navigate lateral incision, plan bony anatomy trajectory, facilitate precise dilator & retractor placement with SafeOp

Monitor retractor migration throughout surgery while elevating disc prep & interbody placement precision

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LEVERAGING INFORMATIC ECOSYSTEM TO ESTABLISH INFLUENCE IN DEFORMITY

Extending procedural strategy to advance care for AIS

ALPHA INFORMATIX

- EOS-automated measures, quantified pre-op planning
- SafeOp MEP evaluation begins ‘24
- Intra-operative assessment ‘24





PROCEDURE-SPECIFIC POSITIONER

- Pre-incision correction capabilities
- Alpha evaluation underway

INSTRUMENTATION

- InVictus DVR adaptable instrumentation streamlines & optimizes de-rotation
- Launched 2023

IMPLANTS

Apply bending coordinates from pre-op plan for patient-specific rod

SPINE'S MOST DISTINCT, INFORMED ECOSYSTEM WILL IMPROVE SPINE CARE

Workflow integrated information = better outcomes = increased adoption & utilization

PRE-OP

Automated alignment
Surgical planning
Customized rod-bending



INTRA-OP

Sophisticated,
proceduralized interventions

PTP™ LTP™
DEFORMITY

Halo effect expands utilization of our more conventional procedures

PLIF/TLIF
ALIF
ACDF
PCF
POSTERIOR FX
BIOLOGICS

POST-OP

Follow Up
Machine Learning
Predictive Care



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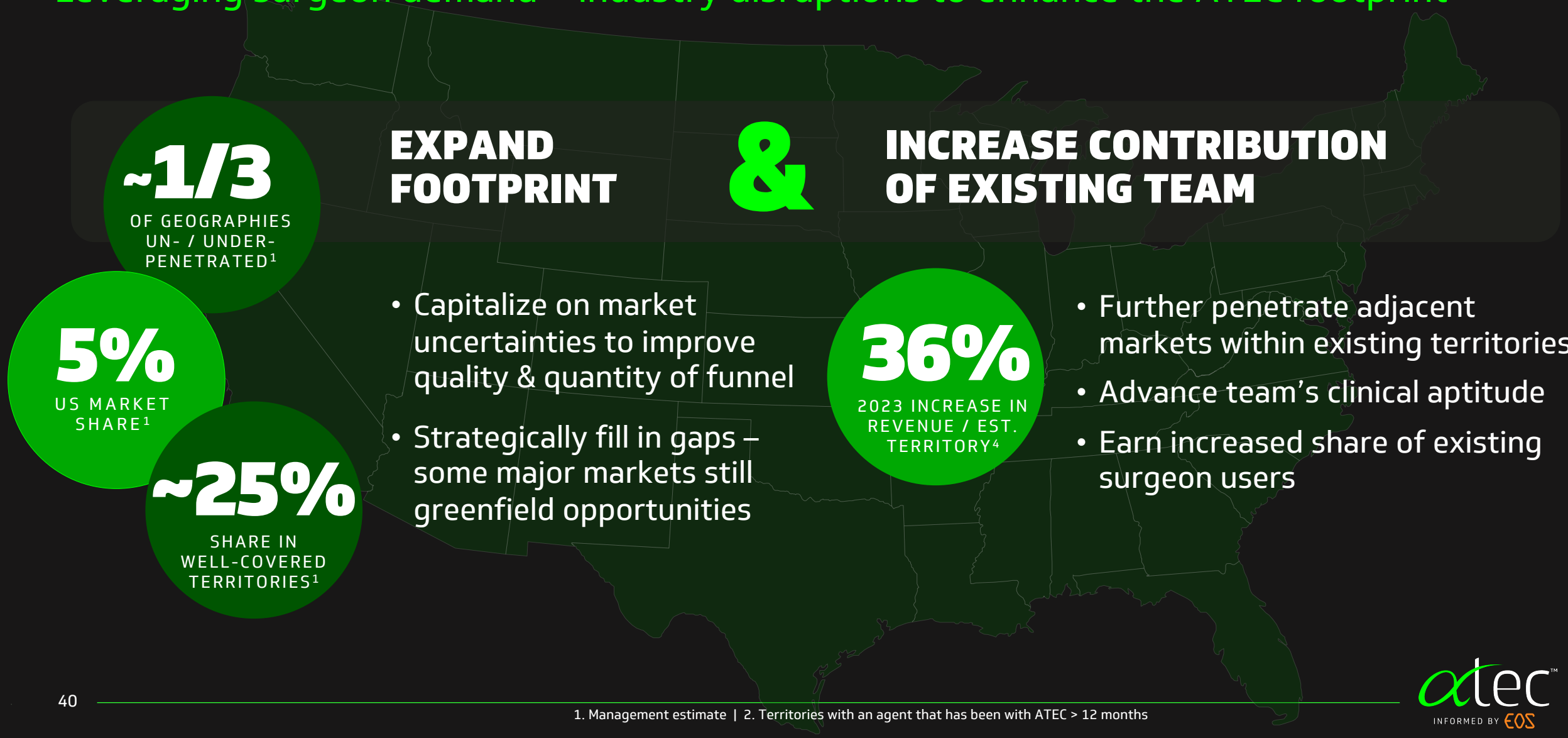
DISTINCTION ELEVATES DISTRIBUTION

Leveraging surgeon demand + industry disruptions to enhance the ATEC footprint



~1/3
OF GEOGRAPHIES UN- / UNDER-PENETRATED[1]

5%
US MARKET SHARE[1]

~25%
SHARE IN WELL-COVERED TERRITORIES[1]

EXPAND FOOTPRINT

- Capitalize on market uncertainties to improve quality & quantity of funnel
- Strategically fill in gaps – some major markets still greenfield opportunities

&

INCREASE CONTRIBUTION OF EXISTING TEAM

36%
2023 INCREASE IN REVENUE / EST. TERRITORY[4]

- Further penetrate adjacent markets within existing territories
- Advance team's clinical aptitude
- Earn increased share of existing surgeon users

1. Management estimate | 2. Territories with an agent that has been with ATEC > 12 months

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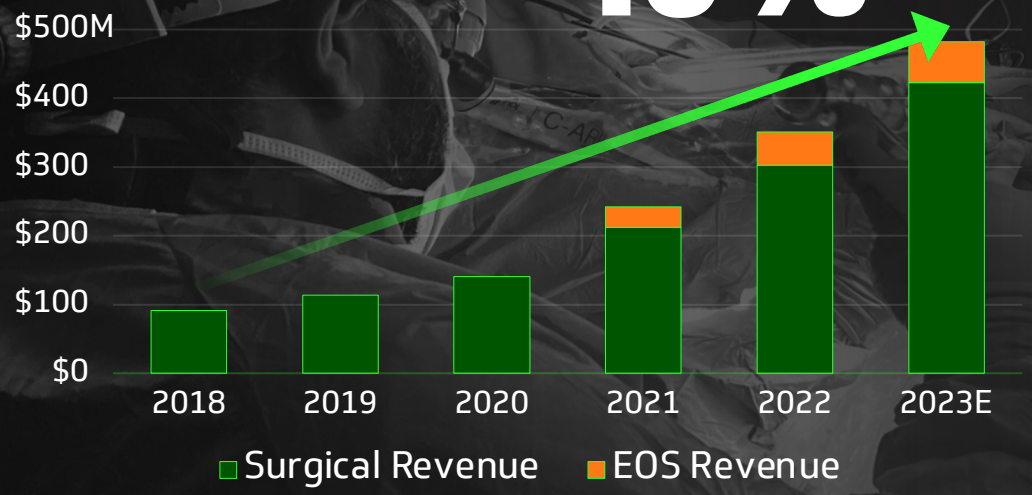
DISTINCTION-DRIVEN MARKET SHARE EXPANSION FUELS OUR GROWTH

REVENUE GROWTH



VOLUME GROWTH

24% CAGR 2018 to 2023E

REVENUE / SURGERY GROWTH

12% CAGR 2018 to 2023E

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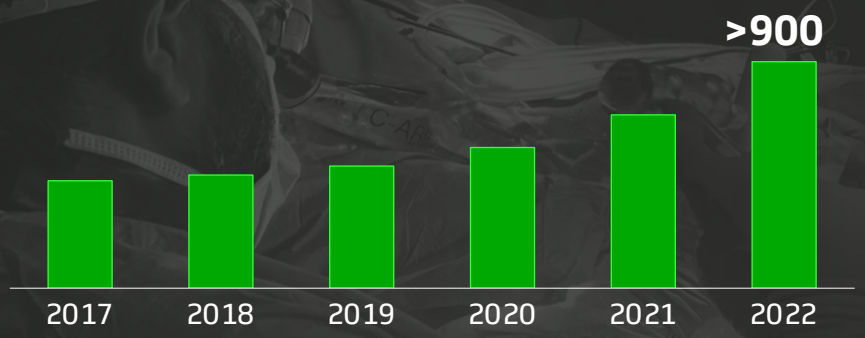
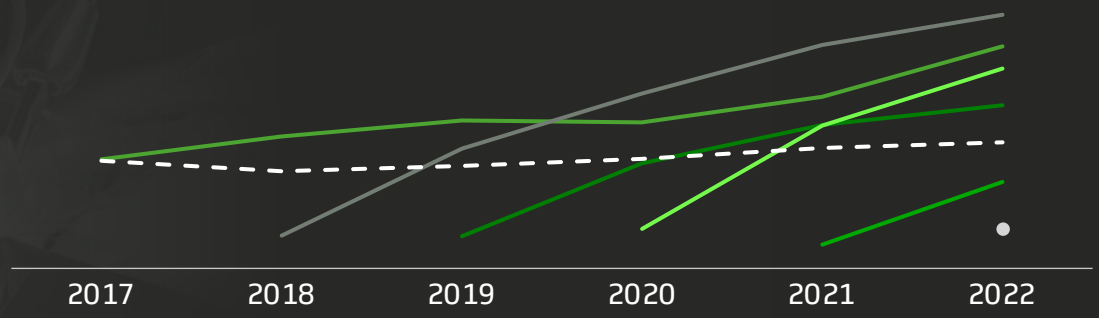
DISTINCTION-DRIVEN MARKET SHARE EXPANSION FUELS OUR GROWTH

VOLUME GROWTH

SURGEON ADOPTION



SURGEON UTILIZATION



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DISTINCTION-DRIVEN MARKET SHARE EXPANSION FUELS OUR GROWTH

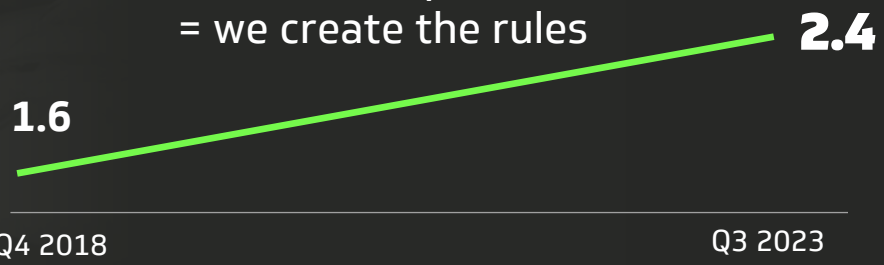
REVENUE / SURGERY GROWTH

MIX SHIFT

- Lateral cases ~2X $ revenue / surgery
- Biologics attach rate ↑
- Expandable launches
- More complex cases

PRODUCT CATEGORIES / CASE

We create the procedure
= we create the rules



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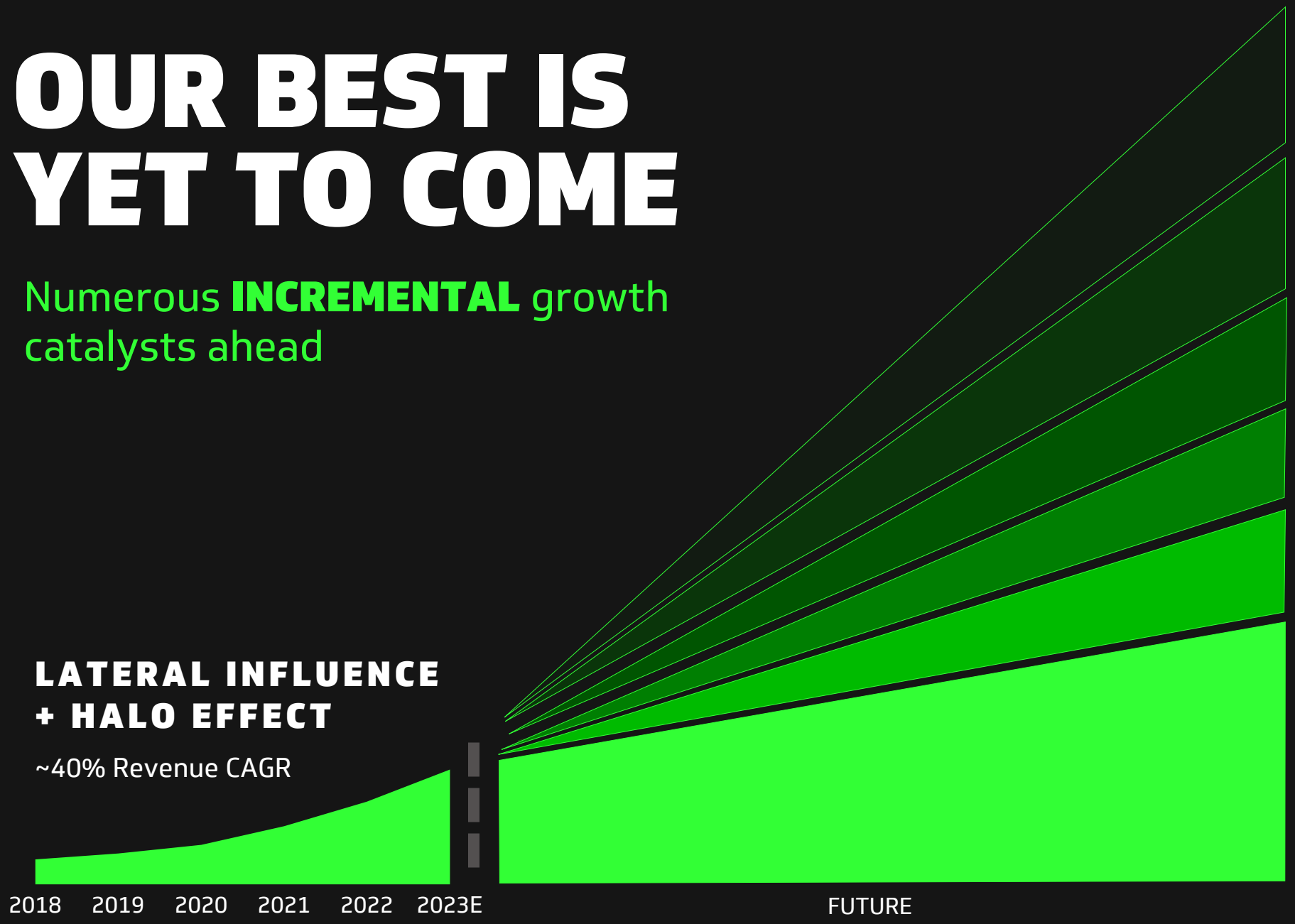
OUR BEST IS YET TO COME

Numerous **INCREMENTAL** growth catalysts ahead



LATERAL INFLUENCE + HALO EFFECT

~40% Revenue CAGR

EOS INFORMATICS

Catalyst launch - 2024

+ Expanding deformity presence

VALENCE

Workflow-integrated robotic navigation - 2025

MARKET DYNAMICS

Compelling disrupted talent – 2024 & 2025

HOSPITAL ACCESS

Increasing

INTERNATIONAL

Narrow & deep strategy contributes in 2024

LATERAL DOMINANCE

- New products: expandables, corpectomy, 3D-printed implants
- Broader & deeper sales footprint

Extrapolation of 2023 into the future is for illustration only.

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PROFITABLE GROWTH

Solid execution against profitability commitments

INFLECTION TO PROFITABILITY

On track with intended margin expansion from infrastructure leverage and variable selling expense improvements

+

WELL-CAPITALIZED BALANCE SHEET

Balance sheet well-positioned to capitalize on recent market disruption and continue to invest in growth

=

SELF-FUNDED GROWTH AHEAD

Cash flow break-even in 2025 will fund future growth without need for dilutive capital

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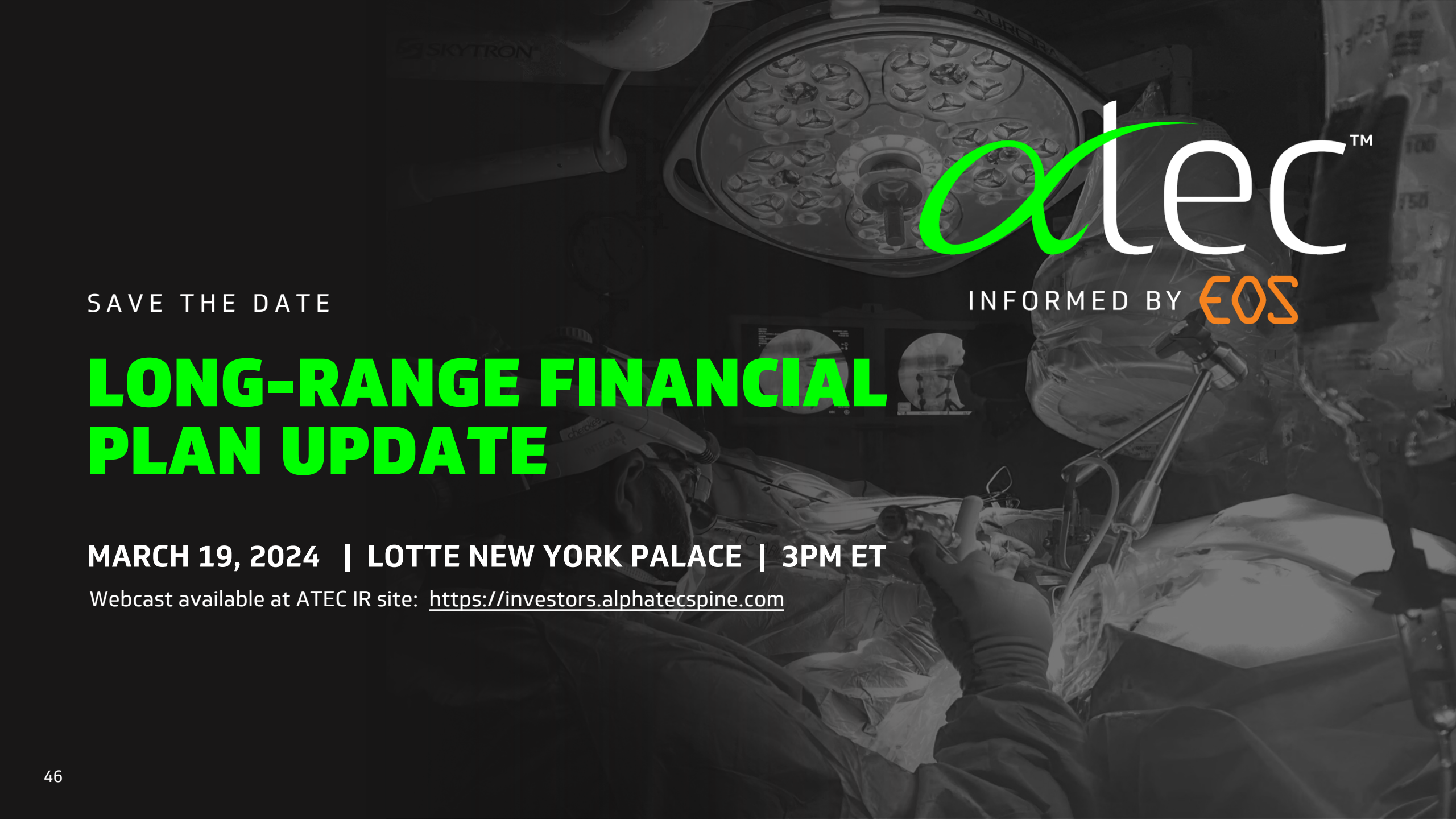
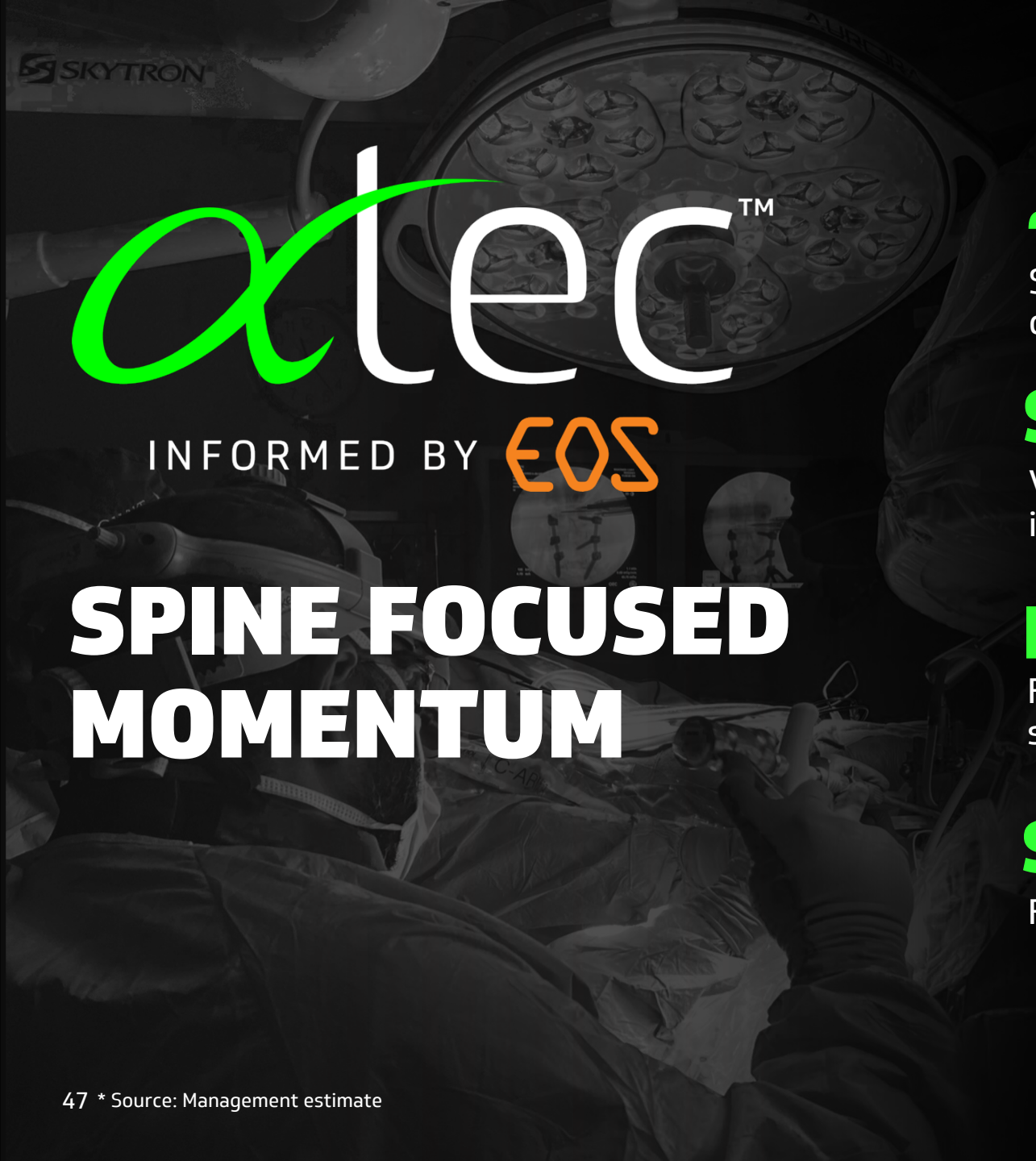


SAVE THE DATE

LONG-RANGE FINANCIAL PLAN UPDATE

MARCH 19, 2024 | LOTTE NEW YORK PALACE | 3PM ET

Webcast available at ATEC IR site: https://investors.alphatecspine.com



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SPINE FOCUSED MOMENTUM

~40% REVENUE CAGR

Sector-leading, 6-year revenue CAGR fueled by distinction-driven market share expansion

$8B MARKET*

Vast need for effective care & predictable outcomes is not being met by unfocused conglomerateurs

PROFITABLE SALES GROWTH

Fueling path to cash flow break even in 2025, which, with strong balance sheet, will support self-funded future growth

SIGNIFICANT CATALYSTS

Financial reflection of incremental drivers yet ahead:

- Lateral expansion
- Enabling tech launches
- Deformity innovation
- Market disruption
- International strategy

 * Source: Management estimate

APPENDIX

Preliminary 2023 revenue results*

	Fourth Quarter Ended December 31, 2023	Full Year Ended December 31, 2023
Surgical Revenue	$121.8M to $122.8M	$422.0M to $423.0M
EOS Revenue	$15.0M to $15.6M	$59.1M to $59.7M
TOTAL REVENUE	**$136.8M to $138.4M**	**$481.1M to $482.7M**

May not foot due to rounding

* As of January 8, 2024. Preliminary, unaudited results are based on the Company's current expectations and may be adjusted as a result of, among other things, completion of customary annual audit procedures

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