Exoskeleton Technologies: 
*From Healing to Enhancement*

Russ Angold  
Co-Founder  
Ekso Bionics
FORWARD LOOKING STATEMENTS

Any statements contained in this press release that do not describe historical facts may constitute forward-looking statements. Forward-looking statements may include, without limitation, statements regarding (i) the Plans and objectives of management for future operations, including plans or objectives relating to the design, development and commercialization of human exoskeletons, (ii) a projection of income (including income/loss), earnings (including earnings/loss) per share, capital expenditures, dividends, capital structure or other financial items, (iii) the Company’s future financial performance and (iv) the assumptions underlying or relating to any statement described in points (i), (ii) or (iii) above. Such forward-looking statements are not meant to predict or guarantee actual results, performance, events or circumstances and may not be realized because they are based upon the Company’s current projections, plans, objectives, beliefs, expectations, estimates and assumptions and are subject to a number of risks and uncertainties and other influences, many of which the Company has no control over. Actual results and the timing of certain events and circumstances may differ materially from those described by the forward-looking statements as a result of these risks and uncertainties. Factors that may influence or contribute to the inaccuracy of the forward-looking statements or cause actual results to differ materially from expected or desired results may include, without limitation, the Company’s inability to obtain adequate financing, the significant length of time and resources associated with the development of our products and related insufficient cash flows and resulting illiquidity, the Company’s inability to expand the Company’s business, significant government regulation of medical devices and the healthcare industry, lack of product diversification, volatility in the price of the Company’s raw materials, existing or increased competition, results of arbitration and litigation, stock volatility and illiquidity, and the Company’s failure to implement the Company’s business plans or strategies. These and other factors are identified and described in more detail in the Company’s filings with the SEC at http://www.sec.gov. The Company does not undertake to update these forward-looking statements.
What is an Exoskeleton?
UC Berkeley Exoskeleton
Ryan Angold - SEAL
Naval Academy Grad 97
BUDS class 217 Honor man
Naval Special Warfare
Development Group
Bronze Star with Valor
ExoHiker -4 Watts

ExoClimber - 100 Watts - uphill

HULC - 250 Watts @ 3mph
HUMAN EXOSKELETONS

A NEW INDUSTRY

MILITARY
Ground Soldiers
Depots & Logistics
Manufacturing

INDUSTRIAL
Construction
First Responders
Manufacturing
Moving

CONSUMER
Elderly
Outdoor Sports
Extreme Athletes

HEALTH
Commercializing into
- Rehab Centers
- Homes

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Since February 14, 2012, over 3500 neurologically impaired individuals have stood and walked with an Ekso; taking more than 15,000,000 steps.
EKSO BIONICS WORLDWIDE OPERATIONS

Europe:
- 27 centers
- Direct sales force: 2
- Distributor Network: 6

Americas
- 49 Centers
- Direct sales force: 4
- Distributor Network: 1

Africa:
- 3 Centers
- Direct sales force: 1
# MEDICAL TRACTION: EKSO BIONICS BY THE NUMBERS

## Proven Clinical Usage

<table>
<thead>
<tr>
<th>Count</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>92</td>
<td>Clinical exoskeletons installed worldwide</td>
</tr>
<tr>
<td>&gt;3,500</td>
<td>Patients walked</td>
</tr>
<tr>
<td>15 Million</td>
<td>Steps enabled with an Ekso Bionics exoskeleton</td>
</tr>
<tr>
<td>$1.9 Billion</td>
<td>Projected market by 2020</td>
</tr>
<tr>
<td>10</td>
<td>Presented clinical studies (3 peer reviewed journals)</td>
</tr>
<tr>
<td>7</td>
<td>Million US stroke survivors(^1)</td>
</tr>
</tbody>
</table>

Source:  
1.National Stroke Foundation
CHANGE YOUR PERSPECTIVE
TO HELP PATIENTS WALK AGAIN

- Exoskeletons are tools to help therapists, help patients
- Designed/optimized for use in a clinic setting
- Treat wide variety of patients
- <5 minutes between patients
EKSO GT - OPTIMIZED FOR THE CLINIC

ADJUSTMENTS:
LESS THAN 5 MINUTES

- Hip abduction/adduction angle
- Adjustable hip width
- Adjustable thigh length
- Hip & knee angles
- Ankle dorsiflexion stiffness
- Ankle resting position

SOFTWARE:
TUNE WHILE WALKING

- Tune spatial targets
- Tune Variable Assist settings
- Tune step length, height
- Adjust hip and knee flexion settings
- Adjust swing time
FOR STROKE, INCOMPLETE SCI, TBI

- Augments therapists’ strength and abilities
- High repetitions of task-based steps in proper alignment
- Learning dependent model of neuroplasticity
- A viable solution to provide gait training to patients you might not otherwise

Stroke Patient
- Left CVA with right hemiplegia
- Non-ambulatory
- Lives in SNF
Repetitive and intense practice is a key factor in improvement in walking function for stroke victims

- Repetitive and intensive practice incremented in difficulty
- Activities which promote a large number of steps
- Task-specific: repetitive and involve massed practice.
- The old adage of ‘practice makes perfect’

Preliminary Data Summary:
Improving Mobility Using Robotic Exoskeletons for Inpatient Stroke Survivors

Karen J. Nolan, PhD¹,²

¹Kessler Foundation, Human Performance and Engineering Research, West Orange, NJ, USA
²Rutgers – New Jersey Medical School, Department of PM&R, Newark, NJ, USA
knolan@kesslerfoundation.org
Inpatient Gait Training Summary

• During the initial PT evaluation, patients walked an average of 7 feet
  – With moderate to max assist
  – Quad cane/walker and a dorsflexion wrap

• During the first exposure to the Ekso-GT, patients walked an average of 344 feet (287 steps)
  – With cane or walker
Ekso-GT Benefits/Outcomes

• During inpatient gait training:
  – Increased Upright time (standing and walking)
  – Increased Walking time (steps per minute of therapy)

• Repeated reciprocal stepping

• Biofeedback during gait training

• Customized to patient impairment level
  – Variable assistance

• Therapist can focus more attention on gait training
FOR COMPLETE SCI

- Independent, over ground, fully weight bearing walking
- Everyone walks in their 1st session: 400 steps average
- Provides opportunities for patient advancement
Introductions:
- Jen Macieievich
- Shane Mosko

LET’S WALK!
HUMAN EXOSKELETONS

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USE CASES: THEY ALL SHOULD BE USING AN EKSO

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Major Benefits of Industrial Exoskeletons

| 1. Productivity | • Case studies with an exoskeletal arm show a **50% reduction** in labor costs/hours  
• Lockheed Martin stat 27x more productive in shipyard¹ |
<table>
<thead>
<tr>
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<th></th>
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</thead>
<tbody>
<tr>
<td>2. Quality</td>
<td>Case studies with an exoskeletal arm and lower body support show <strong>fewer rejected parts</strong> and <strong>better quality with reduced effort</strong>¹</td>
</tr>
</tbody>
</table>
| 3. Safety       | • **5.6M** Americans have work-related back pain²  
• **$2750/employee/year** - average workers’ comp insurance expense (discounts for lower-than-average injury rates)²  
• **$50B** – annual US cost of compensation, lost wages & lost productivity due to back injury² |

Industry Application Examples

**Construction Industry**
- High workers’ comp expenses  
- Employee risk  
- Large addressable market

880K³  
US construction companies

9M³  
US construction workers

**Shipbuilding Industry**
- Outdoor, free-form (uncertain environment) work  
- Immediate need to reduce expenses

$512 M⁴  
Capital expenditures in shipbuilding

27X⁵  
Increase in Productivity

98K⁴  
US Shipbuilding employees

References: ¹Case studies with zeroG exoskeletal arm, ²IDEO project LIXO survey, ³Bureau of Labor Statistics, ⁴Census Bureau, ⁵Lockheed Martin Study
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MILITARY EXOSKELETONS

Passive Load Carriage

Low Powered - DARPA Warrior Web

Full powered Exoskeletons
HUMAN EXOSKELETONS

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