



Company Deck March 2024

















Forward Looking Statements

This Presentation may include statements, including the Company's financial and operational medium-term objectives, that may be deemed to be "forward-looking statements". These forward-looking statements may be identified by the use of forward-looking terminology, including the terms "believes", "aims", "forecasts", "continues", "estimates", "plans", "projects", "anticipates", "expects", "intends", "may", or "or, in each case, their negative or other variations or comparable terminology, or by discussions of strategy, plans, objectives, goals, future events or intentions. Forward-looking statements may and often do differ materially from actual results. Any forward-looking statements reflect the Company's current view concerning future events and are subject to risks relating to future events and other risks, uncertainties, and assumptions relating to the Company's business, results of operations, financial position, liquidity, prospects, growth, or strategies. Forward-looking statements speak only as of the date they are made.



ONWARD® at a Glance

Key Facts

- Founded in 2015
- o ~100 FTEs
- o HQ in Eindhoven, the Netherlands
- Science and Engineering Center in Lausanne, Switzerland
- o US office in Boston, Massachusetts
- IPO 2021, Euronext Brussels and Amsterdam
- Followed by Bryan, Garnier & Co, Degroof Petercam, Kepler Cheuvreux and KBC Securities

- **Technology 2 purpose-built neuromodulation platforms** that stimulate the spinal cord via implantable (ARC^{IM®}) or external (ARC^{EX®}) technologies
 - Innovation 10 FDA Breakthrough Device Designations and 240+ issued patents¹
 - **Clinical Success -** One pivotal study completed with **positive top line results** reported for ARC^{EX}; **positive interim results** also reported for ARC^{IM} blood pressure indication
 - Market Opportunity Large total addressable market (\$20B+ / €19B) with limited competition
 - **Commercialization** ONWARD expects to launch its first product and realize its **first revenues in 2H 2024**

Note: 1 EUR = 1.1 USD; FTE and patent figures as of end of Q4 2023 ¹ Includes EP country validations

There are no cures nor effective therapies for spinal cord injury (SCI)

Unmet Need

Devastating

Not only paralysis & loss of sensation; frequently also infection, incontinence, blood pressure instability, loss of sexual function, and other challenges

Assistance required to support activities of daily life

Quality of life can be poor

Prevalent

US & Europe^{1,2}
Prevalence ~650,000
Incidence ~50,000

Global²

Prevalence ~7,000,000 Incidence ~768,000

Costly

Avg Lifetime Cost³ (paraplegic) \$2.91/1 / €2.61/1

Avg Lifetime Cost³ (tetraplegic) \$5.1M / €4.6M

Note: 1 EUR = 1.1 USD

¹ NSCISC Annual Report, US and Europe only, World Health Organization Fact Sheet, November 2013, estimate 40-80 cases per millic

Kumar et al. 2018. Traumatic Spinal Injury: Global Epidemiology and Worldwide Volume

³ NSCISC Traumatic Spinal Cord Injury Facts and Figures at a Glance (2023 SCI Data Sheet); estimated lifetime costs for a person aged 25 at the time of injury with injury severity AIS ABC; costs for a tetraplegic person calculated as the average cost for a person with high tetraplegia and a person with low tetraplegia

Targeted, programmed electrical stimulation of the spinal cord to restore movement, function, and independence in people with spinal cord injury

Our Technology







Reach commercial stage by year-end, then expand labeling and platforms

Company Focus

Short Term 2024

Medium Term 2026 Long Term
2026+

Commercialize external platform (ARCEX)

First indication: Upper Limb

Population: SCI

Generate revenue and develop market for ARCIM



Commercialize implantable platform (ARCIM)

First indication: Blood Pressure

Population: SCI

Enter traditional medtech IPO/M&A window



Expand labeling and platforms

New indications and platforms to be assessed such as BCI

Populations: SCI, Parkinson's, Stroke

2024 comprises key value inflection points for ONWARD

2024 Strategic Priorities

2024



ARC^{EX} **commercial launch** (upper limb)

- o FDA De Novo request submission 1H 2024
- o FDA clearance
- o First commercial sale



ARC^{IM} pivotal study first participant enrollment (blood pressure)

- o IDE submission
- o IDE approval
- o First participant enrollment

Today



Continue clinical studies¹ and strengthen unique position in BCI field (upper limb and mobility)

9 indications under clinical or pre-clinical evaluation, with 3 in current roadmap

Short and medium term focus

Current Pipeline

Clinical Indication **Human PoC Platform** FDA BDD¹ Pre-clinical Pivotal Feasibility² ARCEX Upper Limb **Blood Pressure** ARCIM Mobility / Second ARCIM Indication ARCEX Mobility ARCIM Parkinson's - Mobility Human PoC **ARCIM** Bladder expected in 2024³ ARCIM BCI Mobility ARCIM BCI Upper Limb ARCDBS Mobility ✓ BDD¹ Granted O Current Roadmap Compared to the compared to O Platform Expansion

Note: The company may modify the pipeline based on clinical progress and marketplace considerations

¹ BDD = FDA Breakthrough Device Designation. ONWARD has been granted four additional BDDs for ARC^{EX} Bladder, ARC^{EX} Blood Pressure, ARC^{EX} Spasticity and ARC^{IM} Spasticity

² Includes both early feasibility (typically before device design finalized) and feasibility (near-final or final device design) studies

³ Funded by Christopher & Dana Reeve Foundation grant

Funded primarily through grants and research partners

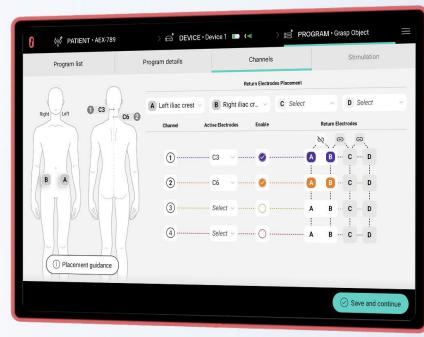




External system for non-invasive, programmed stimulation of the spinal cord



External Platform



ARCEX® PRO & myARCEX® app

via ARC^{EX®} Programmer



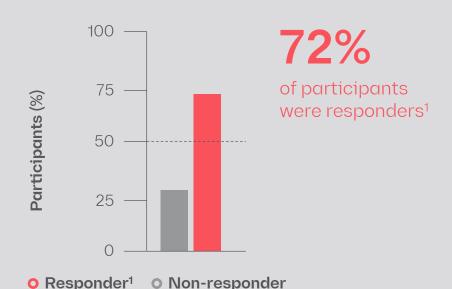
ARC^{EX®} Therapy

Individual stimulation parameters can be optimized for each patient's unique needs



The study met <u>both</u> primary safety and effectiveness endpoints





Primary effectiveness endpoint: Defined as majority of the subjects experienced clinically significant improvement in selected strength and functional performance metrics

Primary safety endpoint: Defined as the incidence of serious adverse events (SAEs) related to the use of ARC^{EX} Therapy

Key takeaways

- 65 participants enrolled at 14 leading research sites
- Announced completion of enrollment in December 2021
- Reported positive topline results in September 2022
- Study met <u>both</u> primary safety and effectiveness endpoints
- Up-LIFT pivotal study manuscript publication expected in 1H 2024 in peer-reviewed top-tier scientific journal
- o FDA De Novo request submission expected in 1H 2024

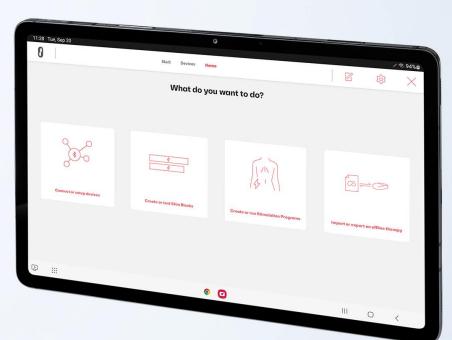


IPG and leads for direct, programmed stimulation of the spinal cord



Implantable Platform





ARCIM® PRO App via ARCIM® Programmer

(IPG)

Prioritizing highly commercially viable therapy as first indication

Blood PressureIndication

ONWARD is pursuing a therapy for **hemodynamic instability**:

- High commercial viability
- Cardiac dysfunction is leading cause of death among people with SCI¹
- Highly prevalent, affecting almost 75% of people with SCI (nearly 500,000 people in the US & Europe)
- Now includes Orthostatic Hypotension (OH) and Autonomic Dysreflexia (AD); expansion of pivotal study scope to include AD expected to result in increased awareness and clinical acceptance





Validation

Paper detailing our approach was published January 2021

ONWARD and partners receiving up to \$36M grant

¹ Grigorean et al, J Med Life, 2009



Reported December 2022, 10 participants across studies in Canada and Switzerland

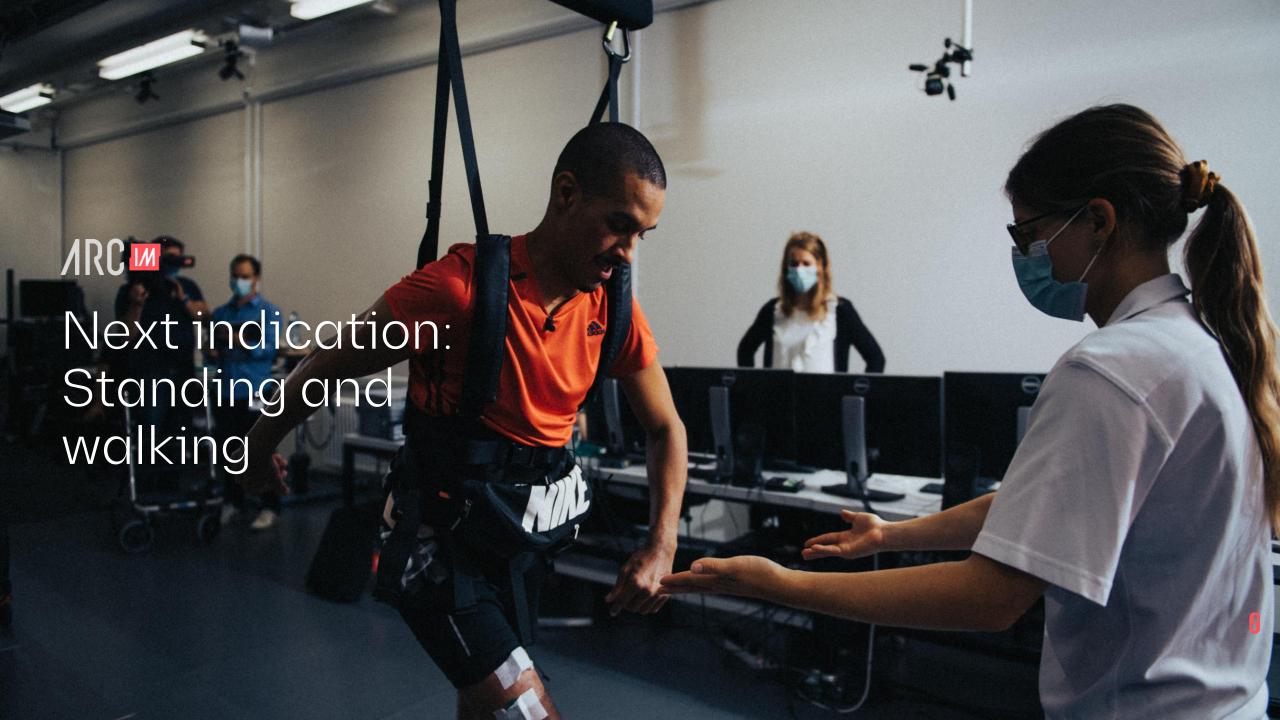
Summary Results

- All participants had increased blood pressure with stimulation
- All participants who were on anti-hypotensive medication reduced dosage or stopped medication completely
- All participants reported reduction of orthostatic hypotension in daily life, feeling more energized and less dizzy
- Partners report higher levels of energy and increased participation in social interaction, during meals and family time
- All participants use stimulation actively in daily life, several during the entire waking day (>10h per day)
- Quality of Life improved in all participants

ARCIM Interim Blood Pressure Results

"My outlook on life has become more positive. I feel more awake and less tired and dizzy. I have a lot more appetite for life" 1

Publication of peer-reviewed interim results for blood pressure indication expected in toptier scientific journal in 2024

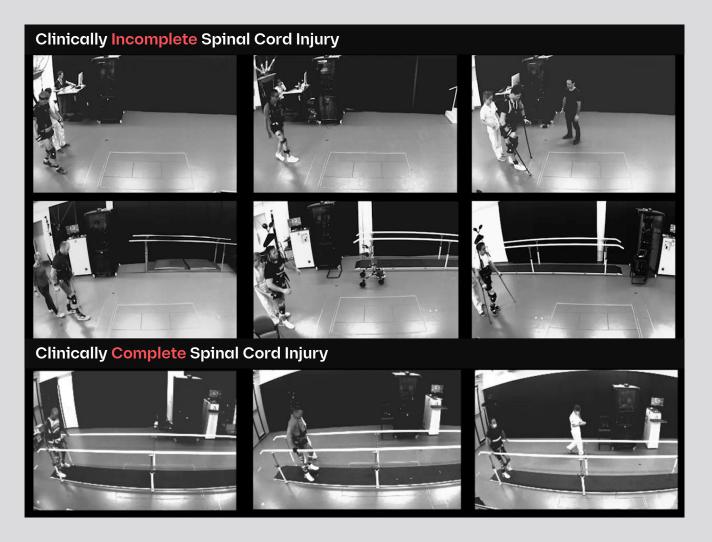


Ability to stand and walk restored in 9 participants with chronic injuries; even those with AIS-A severity

www.nature.com/nm/January 2022 Vol. 28 No. 1 nature medicine Targeting lipoprotein(a) with siRNA

ClinicalTrials.gov Identifier: NCT02936453

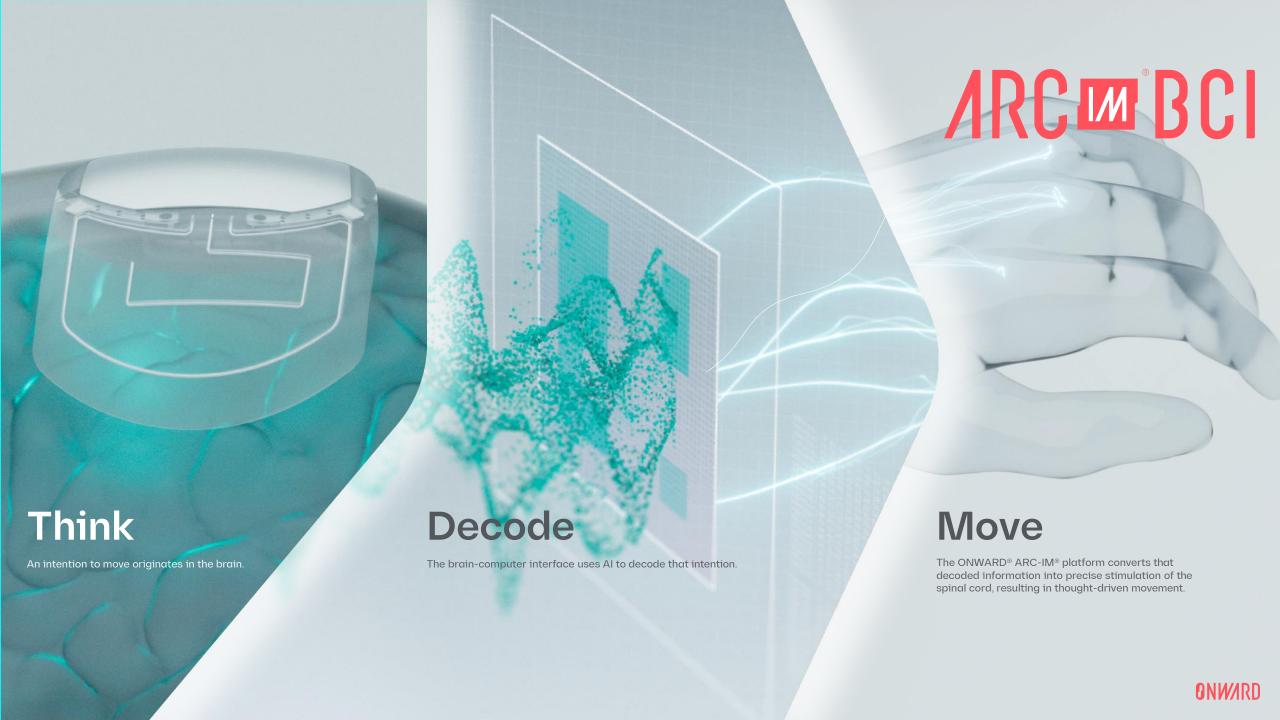
Mobility - STIMO Trial



Note: For investigational use only

ONWARD Company Deck





ONWARD is strategically well positioned to benefit from advances in BCI technology

Brain Computer Interface (BCI)

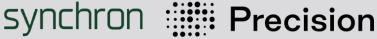
BCI landscape

- Multiple companies racing to develop implanted brain recording devices
- o All these companies are focused on recording brain signals to establish the capability to **control** computers with thought















ONWARD differentiation

- Advancing BCI technology to restore movement of the **human body** using our ARC^{IM} spinal cord stimulation therapy
- ARCIM platform is "BCI-ready" (i.e. designed to receive wireless signals from a BCI)
- o Unique capabilities and flexible technology platform means ONWARD could eventually partner with other BCI companies or develop its own BCI using inlicensed technology

Note: For investigational use only

ONWARD has already achieved several groundbreaking BCI milestones

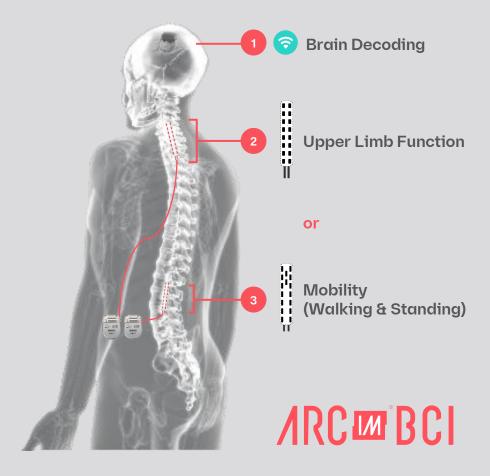
BCI Achievements

Achievements

- In conjunction with EPFL and CEA-Clinatec, successfully implanted humans with investigational BCIs to facilitate mobility (walking) in 2021 and upper extremity movement in 2023
- Approach published in Nature, May 2023
- Awarded European Innovation Council and Christopher & Dana Reeve
 Foundation grants to study BCI technology in at least eight additional humans to recover hand/arm function and mobility
- Awarded FDA Breakthrough Device Designation (BDD) to restore thoughtdriven lower limb mobility after SCI
- Accepted to FDA's new TAP Program, providing early and frequent strategic engagement from the FDA, patients, providers and payers
- Exclusive license to BCI IP from EPFL

Next steps

Additional implants expected for upper limb and mobility indications in 2024



BCI activities provide opportunity for brand and awareness building

Upper Limb



FOX NEWS

Progress for paralyzed patients: First implanted device is placed to restore arm, hand and finger movement



engadget

The ARC nerve-stimulation system could help quadriplegic patients move their arms again



Al implants help paralyzed patient move arms, hands



BARRON'S

Brain implants could restore paralyzed patients' arm movements



KANAAL Z

BEKIJK - Uitzending Z-Nieuws woensdag



+MASS

How Onward uses spinal cord stimulation

— and perhaps BCI — to restore movement

Mobility





Artificial intelligence used in medical procedure to help paralyzed man walk



Paralyzed man able to walk again with brain and spine implants



The Washington Post

A Paralyzed Man Walks with Brain and Spine Implants



The New York Eimes

Brain Implants Allow Paralyzed Man to walk Using His Thoughts





Brain and spine implants enabled a paralyzed man to climb stairs and walk on rough terrain, study shows



ВВС

Brain implants help paralyzed man to walk again

BCI Media Coverage

Documentaries



Bloomberg

Progress for paralyzed patients: First implanted device is placed to restore arm, hand and finger movement



Al implants help paralyzed patient move arms, hands

Other Mentions



Bloomberg

Elon Musk's Neuralink performs its first human implant





Elon Musk's Neuralink implants brain chip into human brain



USA TODAY

Musk touts Neuralink's first patient as a big step. Experts say it's part of long leaacv



Daily **Mail**

Rage against the machine: Americans warn Elon Musk to 'stop creating cyborgs' after he revealed the first human has had Neuralink's brain chip





Wat zit er in De 7 vandaaa?



Note: For investigational use only

Increasingly robust evidence and visibility to clinical outcomes across both platforms and multiple indications

ARC Therapy Evidence

	Indication	Key Takeaways		
/RCEX	 SCI Upper Limb (n=121) 10 pilot studies¹ (n=56) Up-LIFT pivotal study (n=65) LIFT Home (n=17) 	Statistically significant improvement in strength and function	Supporting safe use in home setting	No device related serious adverse events
∕IRC. III	 SCI Blood Pressure (n=15)³ Squair et al 2022⁴ (n=1) STIMO-HEMO: unpublished, ongoing (n=6) HemON CH: unpublished, ongoing (n=7) HemON NL: unpublished, ongoing (n=1) 	Reduced orthostatic hypotension and improved quality of life	Optimal stimulation location confirmed (hemodynamic hotspot)	ONWARD IPG (n=8) and lead (n=4) successfully implanted
	 SCI Mobility (n=12)⁵ STIMO study (n=10); Wagner et al 2018⁶ Includes BCI study (n=1); Lorach et al 2023⁷ BoxSwitch: unpublished, ongoing (n=1) 	Recovery of standing, walking and other activities	Neurological recovery persists even without EES ²	Closed-loop control through brain interface appears promising
	Parkinson's Disease Mobility ⁸ (n=2)	Improved balance and reduced falls	Reduced freezing of gait	Improved walking endurance and symmetry

Visibility to clinical outcomes available for both ARC^{IM} and ARC^{EX} technology platforms (as of 30 January 2024)

Note: For investigational use only

¹Not all pilot studies investigated upper extremity function, ² EES = Epidural electrical stimulation, ³ Positive interim results released in December 2022, ⁴ Squair et al. N Engl J Med 2022, ⁵ One participant implanted in both STIMO and BoxSwitch study, ⁶ Wagner et al. Nature 2018, ² Lorach et al. Nature 2023, ⁶ Rowald et al. Nat Med 2022, ⁶ Milekovic et al. Nat Med 2023, ¹⁰ Based on findings for ¹ patient,



Current pipeline indications and potential pipeline opportunities

Total Addressable Market

	Indication	Injury severity / level	US & EU eligible population ¹	Total addressable market ²
Current roadmap				
∕RC EX	Upper Limb	AIS B-D / lesion C2 - C8	199,000 * 34% of SCI cases ¹	\$6.0B / €5.5B
∕RC ™	Blood Pressure	AIS A-D / lesion C3 - T6	215,000 37% of SCI cases ¹	\$7.3B / €6.6B
∕RC ™	Mobility	AIS B-D / lesion C3 - T10	222,000 38% of SCI cases ¹	\$7.6B / €6.9B
Potential future indications				
ARC™BCI	Potential future indications ³		~3,845,000 ** Prevalence	~\$120B / ~€110B
* Primarily driven by home use opportunity (vs. clii **Patients may benefit from more than one therap		n)	>4,000,000**	>\$140B / ~€130B

^{**}Patients may benefit from more than one therapy (e.g. Blood Pressure and Upper Limb function Note: 1EUR = 1.1USD

¹ Company data, epidemiology data from 2022 NSCISC Annual Statistical Report Complete Public Version

² Assumes pricing in alignment with value in comparison to existing rehabilitation therapies

³ Includes a selection of potential future indications for ARC^{EX} (Bladder, Stroke Mobility and Stroke Upper Limb), ARC^{IM} (Bladder, Cervical and Parkinson's Mobility) and ARC^{IM} BCI (Mobility and Cervical)

Enthusiasm from leading patient advocacy organizations and eagerness from SCI community

High Awareness and Pent-Up Demand

What they are saying...







"Functional recovery once deemed impossible may now be in reach"

"I have been following this closely for over 20 years, nothing like this has been brought to the clinical setting" "This is our most visible success!"

Marco Baptista, Ph.D.
Chief Scientific Officer
Christopher & Dana Reeve Foundation

Kevin Schultes
Chairman of the Executive Board
German Spinal Injuries Association (FGQ)

Anita Gerhardter CEO Wings for Life

Strong relationships with **leading patient advocacy organizations** to drive awareness and market access

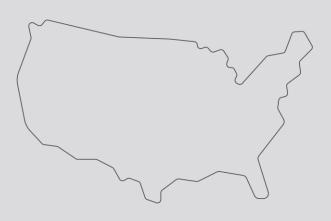
2500+ people with SCI or their family members have reached to ONWARD to inquire about our therapies since 2020

Pursue highly concentrated customer base with direct field organization

Call Points

~330 (2023)

US



Geographical focus

US and select European markets with sophisticated neurorehabilitation infrastructure, clinical partnerships, and/or favorable reimbursement for medical innovation

~250

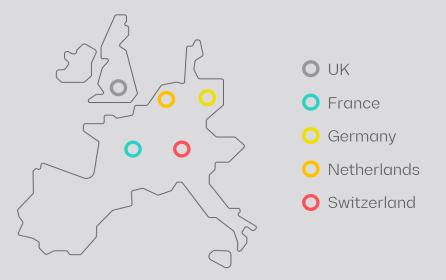
Tier 1 and Tier 2 specialist rehab centers

Initial focus: ~50 Tier 1 accounts including VA SCI hub centers, Up-LIFT investigational sites and other US flagship SCI clinics

Sales force deployment: Expect to start with 6-10 Sales Reps in first year of sales

Commercial Strategy

Europe





Specialist rehab centers

Initial focus: ~30 accounts including DMGP member paraplegia centers in Germany, chiefly BG SCI Kliniks

Sales force deployment: Expect to start with 2-5 Sales Reps in Europe and UK

U

Reimbursement pathways open immediately upon commercial launch



US Europe



Initially target Veterans Affairs beneficiaries, Workers' Compensation opportunities, and self-pay market to establish pricing history, while capturing real-world data to support pursuit of new CMS HCPCS code.

Initial plan to commercialize in **Germany, UK, France, Netherlands, and Switzerland**; focus will be on clinic vs. home sales. Target markets selected based on reimbursement environment for new technologies and sophistication of SCI rehabilitation infrastructure.

CMS has indicated its desire to identify an accelerated path to coverage for Breakthrough therapies (TCET).



Apply for new Category III CPT code to facilitate billing from day 1, with evidence generation plan to build case for new Category I code over time.

Leverage eligibility for incremental payment in outpatient (TPT) and inpatient (NTAP) settings in interim.

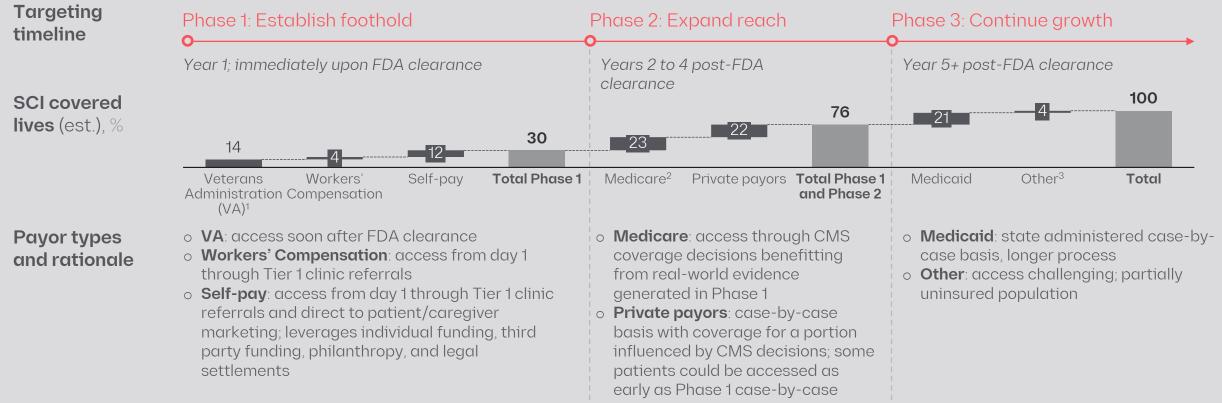
Breakthrough Designation satisfies "substantial clinical improvement" for outpatient (TPT) and inpatient (NTAP) addon payments and "newness" requirements for NTAP.

In largest European market (Germany), diagnosis (ICD) and procedural (OPS) codes are in place for planned indications, and a pathway exists to negotiate supplemental fee to cover ARC^{IM} procedure at a rate commensurate with the new, differentiated procedure.



Phased targeting approach: Establish foothold and pricing history, while generating required evidence for CMS

ARC^{EX} US Payor Strategy and Timeline



CMS = Centers for Medicare and Medicaid Services

Note: Assumes 300k people with SCI in the US, out of which 42k are potential VA patients; assumes primary payor breakdown as per NSCISC 2021 Annual Report 5 years post-injury for remaining 258k non-VA patients; assumes patients who can be accessed through self-pay represent 20% of "private payors" pool, 20% of "workers' compensation" pool, 15% of "Medicare" pool and 5% of "Medica



¹ Includes veterans with SCI who are not currently seen at VA centers but who may be eligible for VA coverage

² Medicare covered lives are split 50/50 between fee-for-service (CMS administered) and Medicare Advantage (private payor (MAC) administered). CMS decisions affect coverage for all, but private payors set payment for Medicare Advantage covered lives and are not required to follow CMS payment assignments.

³ Includes other government, no pay, private funds and other payor categories from NSCISC 2021 Annual Report (may include people uninsured or not covered) Source: Company estimates; VA; NIH National Center for Biotechnology Information (NCBI); NSCISC 2021 Annual Report

Current competition is standard of care: 3-6 months of rehab followed by costly support for activities of daily life

Competition





- o Intellectual property controlled by UCLA and ONWARD
- Limited funding raised to date¹
- Academic management teams





No Direct Competitors

Potential future competition from spinal cord stimulators for pain and other existing indications

- Currently supporting academic research with existing technology
- Several years required to reach parity with ONWARD and market a competing technology
- Likely to enter space via M&A, leveraging balance sheets











High-growth market segment with successful peers reaching significant valuations

Neurostimulation Comps

Size

\$14.8B

(2030E)

CAGR

12.2%

(2023E - 2030E)

Comparable Companies

Company	HQ	Exit Year	Exit Type	Market Cap (\$)	EV/Sales Multiple NTM
Axonics		2024	ABM	3.7B	~7.7x
a Inspire		2018	IPO	5.8B	n/a



RVO loan of €10M / \$11M Several of Europe's leading life science venture capital firms invested €26M / \$29M Series A extension of €5M / \$5.5M from existing shareholders
NRT acquisition brought €5M / \$5.5M in fresh capital and shareholder relationship with a leading global patient advocacy organization

All current institutional investors participated with €7M / \$8M New investors contributed €23M / \$25M

Believed to be the largest early-stage medtech IPO in European history Outstanding valuation despite weakening market Very strong book of long-only and specialist investors



inkef capital

wellingtonpartners

Gimv















Experienced, global management team with the expertise to commercialize

Team













Dave Marver

Seasoned medical technology executive with 30 years of global experience. Nearly 15 years with Medtronic in a variety of Vice President roles in the US and Europe. Has served as CEO of listed companies on NASDAQ and Euronext; raised over \$200M in capital via IPO and private financings; companies have developed three Time Magazine Best Invention awards.

Khaled Bahi Interim CFO

Former CFO of Symetis, acquired by Boston Scientific in 2017 for \$435M. Over 20 years of medtech experience in a variety of finance leadership positions. Former CFO of Stilla Technologies in France and former finance leader for Fresenius in France, Europe, Middle East, and Africa. MSc from ETH Zürich.

John Murphy, PhD CTO

Over 25 years of experience leading the development of active medical implants and neurostimulation devices. Former Chief Technology Officer for LivaNova with responsibility for neuromodulation R&D. Also former VP Engineering for Abbott, where he was responsible for CRM and neuromodulation R&D; PhD from EPFL.

Erika Ross Ellison, PhDVP Clinical, Regulatory
and Quality

Former Leader of Abbott
Neuromodulation's
Clinical function. Former
neuroscience director at
Cala Health, a
neuromodulation device
company. Former
professor of Neurosurgery
at Mayo Clinic. PhD in
Neuroscience from Mayo
Clinic, BS in Biology and
MSc in Molecular Biology
from the University of
Denver.

Grégoire Courtine, PhDCSO

PhD in Experimental Medicine and trained in Mathematics, Physics, and Neurosciences. Professor at EPFL. Awards include Schellenberg Prize, Rolex Award, Chancellor Award, and Fellowship from the European Research Council. Preeminent researcher with over 120 publications in top peerreviewed journals.

Sarah Moore VP Global Marketing

Over 20 years of healthcare Marketing, Sales and Business Development experience, including 20+ product launches. Former Global Marketing Leader at Nevro, a neuromodulation company. Nearly 15 years with J&J as Business Unit and Marketing leader. MBA from Duke University.

Bob OdellVP Operations

Decades of medtech leadership experience including Class II and Class III devices for hospitals, clinics and home use. Former President & COO of Cardiac Insight and former COO of Cardiac Science. Leadership roles with GE Healthcare, Siemens, Philips and Medtronic.



Several important catalysts expected in 2024

Upcoming Milestones and News Flow

ARCEX

Up-LIFT pivotal study manuscript publication Upper limb

ARCEX

Regulatory clearance submission
Upper limb

ARCEX

FDA clearance
Upper limb

ARCEX

First commercial sale (US) Upper limb

ARCIM

First participant enrollment¹ Early feasibility study

Early feasibility study Parkinson's mobility

ARCIM

Interim results publication

Blood pressure

ARCIM

IDE submission

Empower BP pivotal study Blood pressure

ARCIM

IDE approval

Empower BP pivotal study Blood pressure

ARCIM

First participant enrollment

Empower BP pivotal study Blood pressure

ARCIM

First-in-human²

Bladder

ARCIM BCI

Additional implants³
Upper limb and Mobility

Note: All platforms and therapies are for investigational use only

¹ Funded by Michael J. Fox Foundation for Parkinson's Research grant

² Funded by Christopher & Dana Reeve Foundation grant

³ Funded by European Innovation Council and Christopher & Dana Reeve Foundation grants

