Corporate Presentation

NYSE MKT: NSPR, NSPR.WS

October 2016

Forward Looking Statements

This presentation contains "forward-looking statements." Such statements may be preceded by the words "intends," "may," "will," "plans," "expects," "anticipates," "projects," "predicts," "estimates," "aims," "believes," "hopes," "potential" or similar words. Forward-looking statements are not guarantees of future performance, are based on certain assumptions and are subject to various known and unknown risks and uncertainties, many of which are beyond the Company's control, and cannot be predicted or quantified and consequently, actual results may differ materially from those expressed or implied by such forward-looking statements. Such risks and uncertainties include, without limitation, risks and uncertainties associated with (i) market acceptance of our existing and new products, (ii) negative clinical trial results or lengthy product delays in key markets, (iii) an inability to secure regulatory approvals for the sale of our products, (iv) intense competition in the medical device industry from much larger, multinational companies, (v) product liability claims, (vi) product malfunctions, (vii) our limited manufacturing capabilities and reliance on subcontractors for assistance, (viii) insufficient or inadequate reimbursement by governmental and other third party payers for our products, (ix) our efforts to successfully obtain and maintain intellectual property protection covering our products, which may not be successful, (x) legislative or regulatory reform of the healthcare system in both the U.S. and foreign jurisdictions, (xi) our reliance on single suppliers for certain product components, (xii) the fact that we will need to raise additional capital to meet our business requirements in the future and that such capital raising may be costly, dilutive or difficult to obtain and (xiii) the fact that we conduct business in multiple foreign jurisdictions, exposing us to foreign currency exchange rate fluctuations, logistical and communications challenges, burdens and costs of compliance with foreign laws and political and economic instability in each jurisdiction. More detailed information about the Company and the risk factors that may affect the realization of forward looking statements is set forth in the Company's filings with the Securities and Exchange Commission (SEC), including the Company's Annual Report on Form 10-K and its Quarterly Reports on Form 10-Q. Investors and security holders are urged to read these documents free of charge on the SEC's web site at http://www.sec.gov. The Company assumes no obligation to publicly update or revise its forward-looking statements as a result of new information, future events or otherwise.

Investment Highlights

- Revenue growth driven by broader EU and Latin American launch of CGuard™
- Strategic distribution partnership with Penumbra (NYSE: PEN)
- Multiple and consistent clinical trial results using CGuard in a broad patient population, including high risk patients
- Expanding opportunities in the growing neurovascular and peripheral vascular markets
- Strategic collaboration opportunities on multiple MicroNet™ product applications
- Broad portfolio of patent-protected assets
- Financial discipline in line with development and growth initiatives

Embolization Can Lead to Catastrophic Health Events


THE WALL STREET JOURNAL. ≡ U.S.

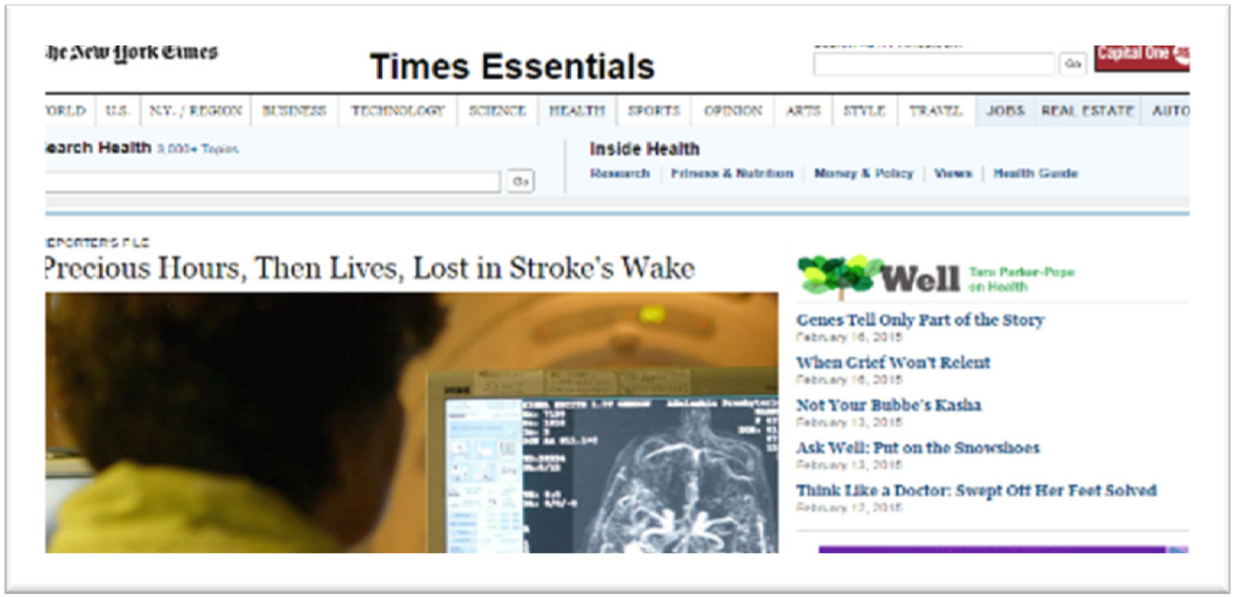
U.S. NEWS

Stents Boost Stroke Recovery, Study Finds

Using Devices to Pull Clots From Brain Arteries Can Help Patients

By THOMAS M. BURTON

Using a device to extract blood clots from brain arteries can significantly improve patients' ability to rebound from a stroke, according to a landmark study published Wednesday.


The New York Times

Times Essentials

Inside Health

Precious Hours, Then Lives, Lost in Stroke's Wake

Well

Genes Tell Only Part of the Story

When Grief Won't Relent

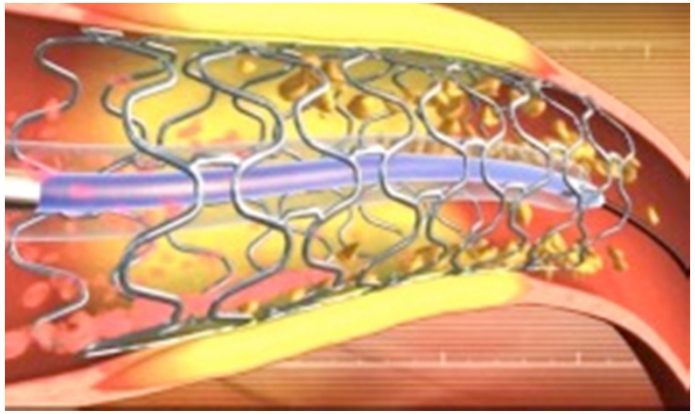
Not Your Bubbe's Kasha

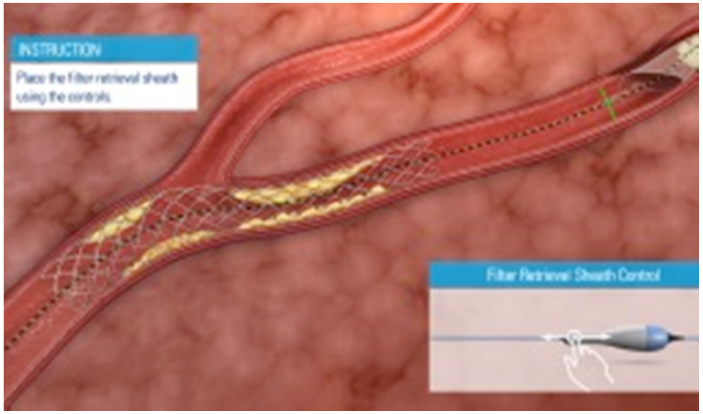
Ask Well: Put on the Snowshoes

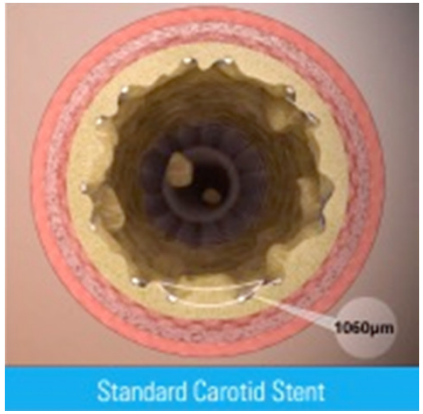
Think Like a Doctor: Swept Off Her Feet Solved

Embolization Following Carotid Artery Stenting

"Plaque protrusion through stent struts occurs in up to 65% of conventional carotid stents in relation to plaque morphology/symptomatic status and stent type, providing a mechanism for post carotid artery stenting (CAS) cerebral embolization, either directly or via additional thrombus formation."*



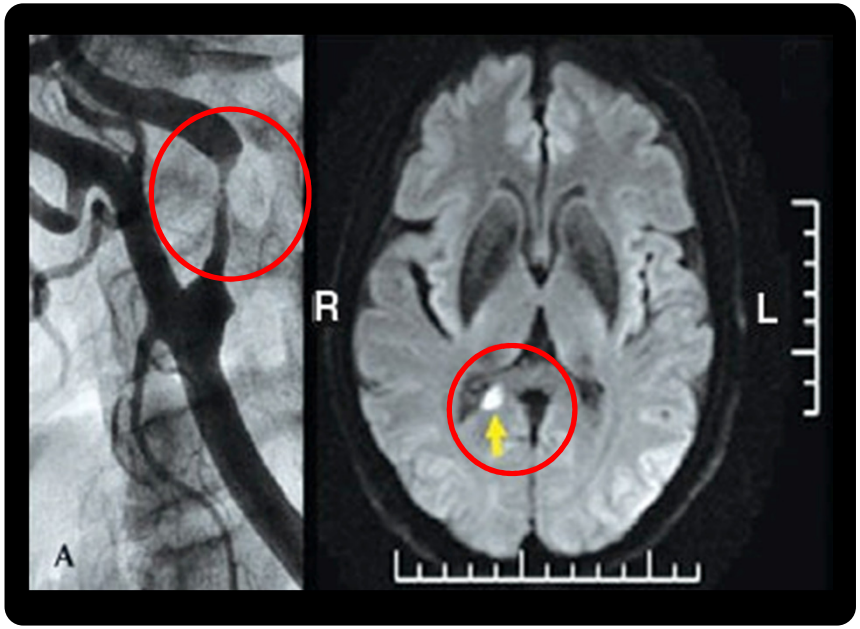




2/3 of CAS neurovascular events (stroke, TIA) are POST-procedural.**

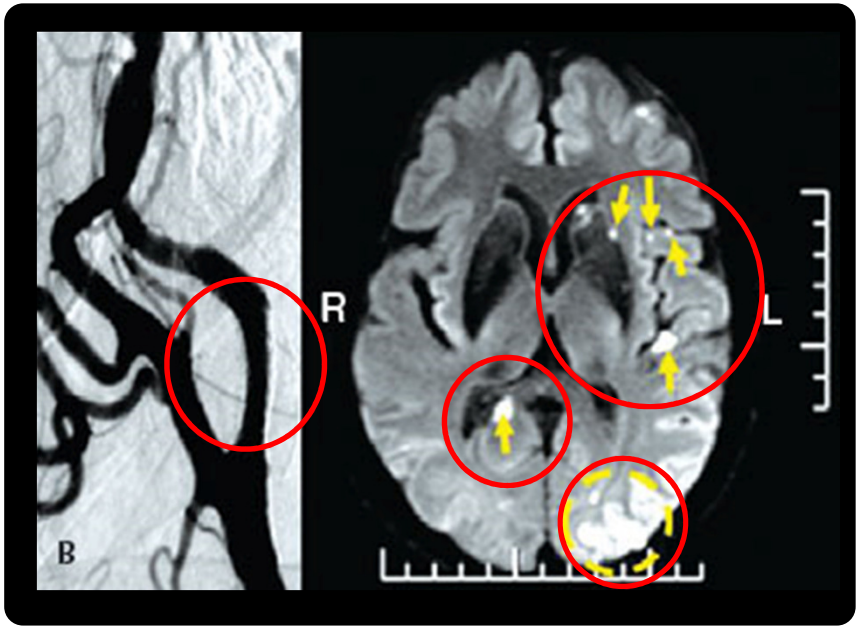
* Musialek, et.al. Eurointerventions 2016;12 August 2016.
** Bosiers et al. Eur J Vasc Endovasc Surg Vol 33, Feb 2007.

Consequences Range from Neurological Deficit to Stroke



Pre-Procedure

Pre-intervention showing 90% occlusion of the carotid artery and an MRI showing an old white matter infarction (obstruction).



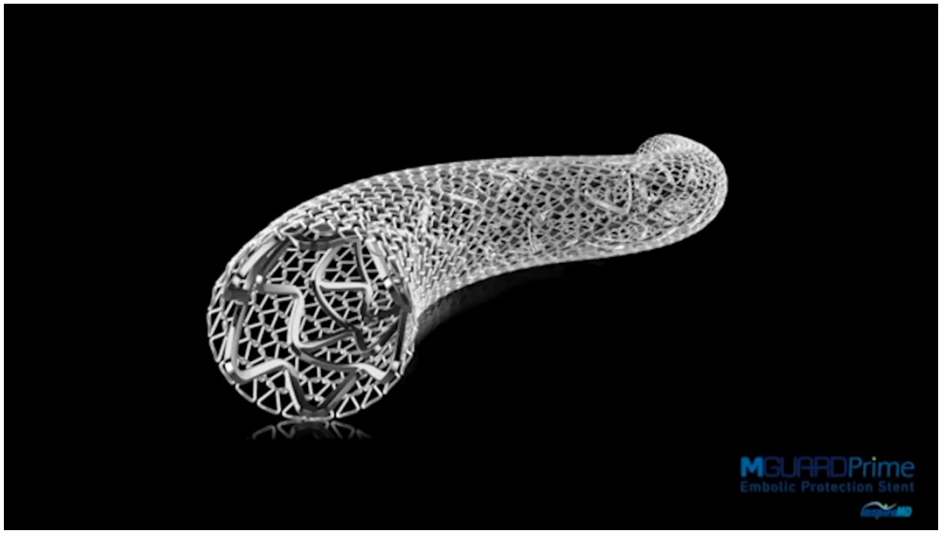
Post-Procedure

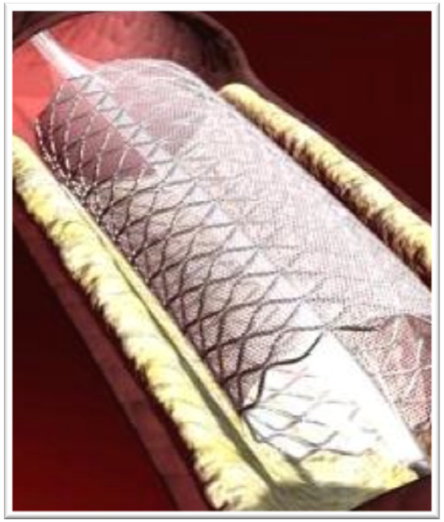
Post-intervention showing successful opening of the occluded carotid artery with conventional stenting and an MRI showing multiple micro-infarcts (obstructions) post-procedure due to liberation of embolic particles.

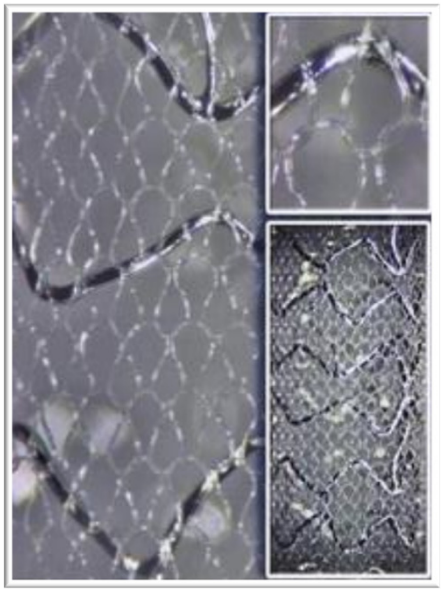
Cano et al. Rev Bras Cardiol Invasiva 2013; 21(2): 159-64.

MicroNet Prevents Distal Embolization and Other Vascular Disease Challenges

- Proprietary technology
- Ultrathin PET* mesh provides meaningful clinical benefit versus conventional devices
- Provides revascularization benefit
- MicroNet acts as “safety net” by offering greater vessel area coverage to prevent large debris protrusion through the scaffold
- Made of a single fiber from a biocompatible polymer, widely used in other medical implants

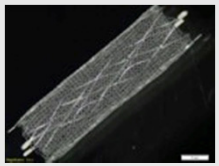






*PET – polyethylene terephthalate

Large Addressable Market

Embolic Prevention Products		Market Opportunity	CE Mark	Focus Area
MGuard™*		$1.7B	✓	Coronary AMI & SVG
CGuard™		$500M	✓ (FDA IDE draft protocol synopsis)	Carotid
NGuard™		$675M	2017E Planned Submission	Neurovascular
PVGuard™		$1.7B	2018E Planned Submission	Peripheral

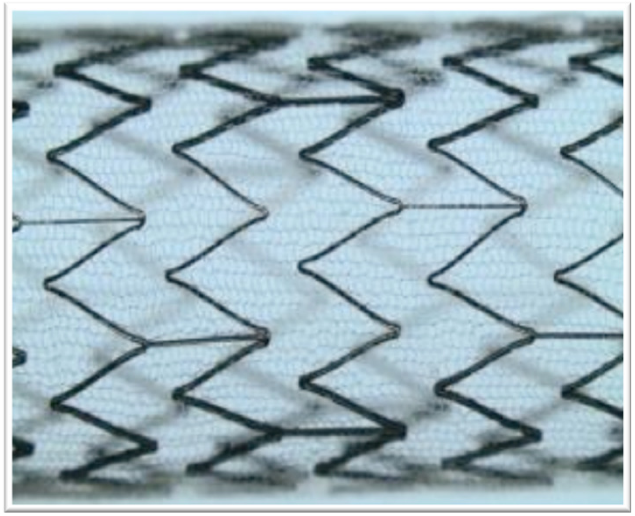
* MGuard is a bare metal stent scaffold

Carotid Solution: Mesh Covered Technology

CGuard Embolic Prevention System(EPS)

Combines stent and embolic protection in a single system

- CE marked
- Self-expanding nitinol stent
- Emerging global market opportunity valued at $500M*
- Positive CARENET data released 9/14, 1/15 and 5/16 documenting the safety and patency of the CGuard EPS
- Positive all-comer data from PARADIGM trials presented in May 2016 at EuroPCR documenting the safety and benefits of Cguard EPS
- Positive data presented at CIRSE 2016 and published in *Journal of Endovascular Therapy***
- Ongoing launch in Europe, Latin America, South America, & other regions



* Source: JMP Securities, 2014 and Cowen 2014. ** Wissgott, et.al. J Endovasc Ther 2016

Positive CGuard Clinical Experience

CARENET Clinical Trial: 30 patient safety and efficacy clinical trial

- Zero major adverse cardiac or cerebral events (MACCE) at 30 days (Comparative data 5.72%*)
- 50% fewer new ischemic lesions with lesion volume being 10x times smaller compared to historical non-mesh carotid artery stenting data
- All new ischemic lesions full resolved at 30 days except one
- 3.6% MACCE rate at 6 months (Comparative data 8.09%**)
- Zero strokes or stroke related deaths at 12 months

PARADIGM 101 Clinical Trial: 101 patient trial evaluating CGuard EPS in unselected, consecutive carotid patients (all-comers)

- 99.1% device success
- 0% MACCE (Death/stroke/MI) @ 48 hr
- 0% MACCE @ 30 day as determined by independent neurological and angiographic evaluation

"CGuard can safely be used on more than 90% of all-comer patients that have carotid artery stenosis."
P. Musialek, MD

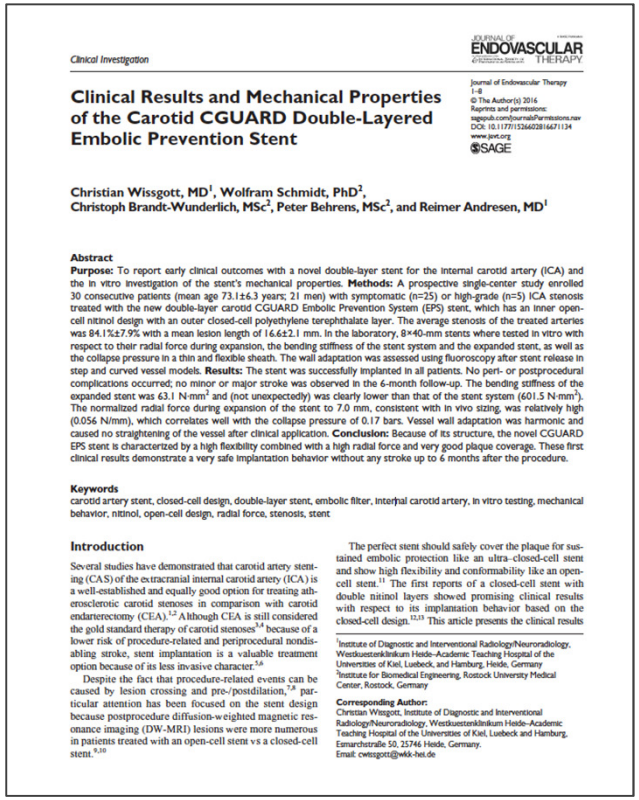
* Trials included in analysis: ARCHeR pooled, ARMOUR, BEACH, CABERNET, CREATE, EMPIRE, EPIC, MAVErIC 1+2, MAVErIC International, PRIAMUS, SAPPHIRE, SECURITY, PROFI, ICSS
** Values extrapolated from event curves

Additional Independent Clinical Data Supports Use of CGuard*

Independent study conducted in 30 patients with internal carotid artery disease

Clinical results

- 100% success in implanting the CGuard EPS
- No peri- or post-procedural complications
- No deaths, major adverse events, minor or major strokes, or new neurologic symptoms during the six months following the procedure
- All vessels treated with the CGuard system remained patent (open) at six months
- DW-MRI performed in 19 of 30 patients found no new ipsilateral lesions after 30 days and after six months compared with baseline DW-MRI studies



Clinical Investigation

JOURNAL OF ENDOVASCULAR THERAPY

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www.jevt.org
SAGE

Clinical Results and Mechanical Properties of the Carotid CGUARD Double-Layered Embolic Prevention Stent

Christian Wissgott, MD[1], Wolfram Schmidt, PhD[2], Christoph Brandt-Wunderlich, MSc[2], Peter Behrens, MSc[2], and Reimer Andresen, MD[1]

Abstract

Purpose: To report early clinical outcomes with a novel double-layer stent for the internal carotid artery (ICA) and the in vitro investigation of the stent's mechanical properties. **Methods:** A prospective single-center study enrolled 30 consecutive patients (mean age 73.1±6.3 years; 21 men) with symptomatic (n=25) or high-grade (n=5) ICA stenosis treated with the new double-layer carotid CGUARD Embolic Prevention System (EPS) stent, which has an inner open-cell nitinol design with an outer closed-cell polyethylene terephthalate layer. The average stenosis of the treated arteries was 84.1%±7.9% with a mean lesion length of 16.6±2.1 mm. In the laboratory, 8×40-mm stents where tested in vitro with respect to their radial force during expansion, the bending stiffness of the stent system and the expanded stent, as well as the collapse pressure in a thin and flexible sheath. The wall adaptation was assessed using fluoroscopy after stent release in step and curved vessel models. **Results:** The stent was successfully implanted in all patients. No peri- or postprocedural complications occurred; no minor or major stroke was observed in the 6-month follow-up. The bending stiffness of the expanded stent was 63.1 N·mm^2 and (not unexpectedly) was clearly lower than that of the stent system (601.5 N·mm^2). The normalized radial force during expansion of the stent to 7.0 mm, consistent with in vivo sizing, was relatively high (0.056 N/mm), which correlates well with the collapse pressure of 0.17 bars. Vessel wall adaptation was harmonic and caused no straightening of the vessel after clinical application. **Conclusion:** Because of its structure, the novel CGUARD EPS stent is characterized by a high flexibility combined with a high radial force and very good plaque coverage. These first clinical results demonstrate a very safe implantation behavior without any stroke up to 6 months after the procedure.

Keywords

carotid artery stent, closed-cell design, double-layer stent, embolic filter, internal carotid artery, in vitro testing, mechanical behavior, nitinol, open-cell design, radial force, stenosis, stent

Introduction

Several studies have demonstrated that carotid artery stenting (CAS) of the extracranial internal carotid artery (ICA) is a well-established and equally good option for treating atherosclerotic carotid stenoses in comparison with carotid endarterectomy (CEA).[1,2] Although CEA is still considered the gold standard therapy of carotid stenoses[3,4] because of a lower risk of procedure-related and periprocedural nondisabling stroke, stent implantation is a valuable treatment option because of its less invasive character.[5,6]

Despite the fact that procedure-related events can be caused by lesion crossing and pre-/postdilation,[7,8] particular attention has been focused on the stent design because postprocedure diffusion-weighted magnetic resonance imaging (DW-MRI) lesions were more numerous in patients treated with an open-cell stent vs a closed-cell stent.[9,10]

The perfect stent should safely cover the plaque for sustained embolic protection like an ultra-closed-cell stent and show high flexibility and conformability like an open-cell stent.[11] The first reports of a closed-cell stent with double nitinol layers showed promising clinical results with respect to its implantation behavior based on the closed-cell design.[12,13] This article presents the clinical results

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Email: cwissgott@wkk-hei.de

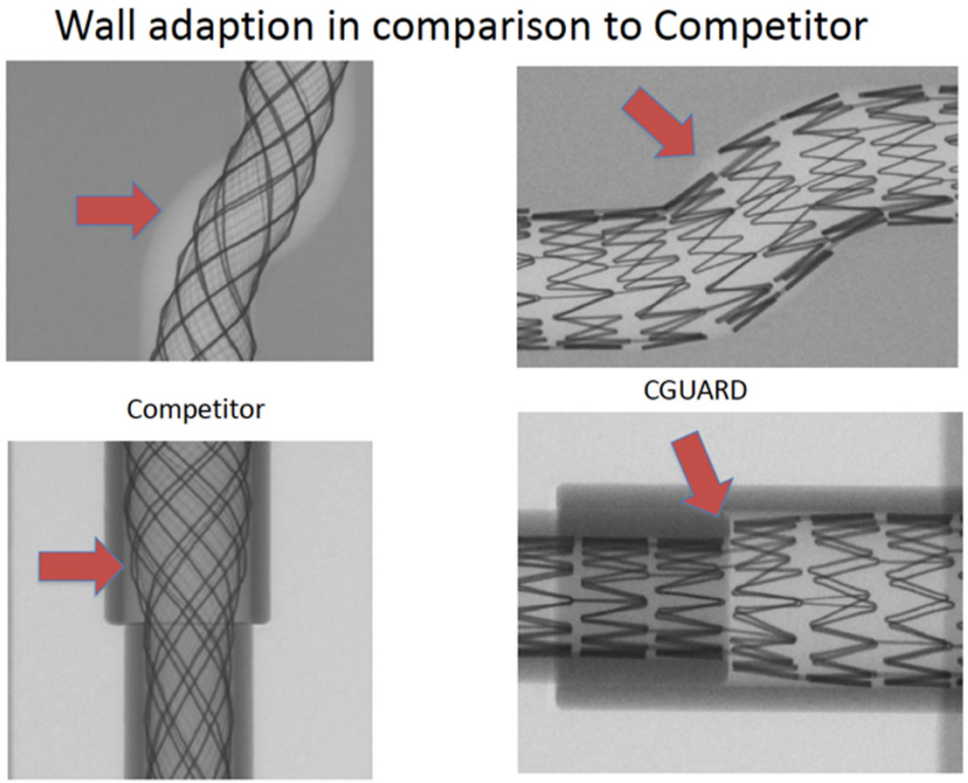
"CGuard EPS is an important new treatment option for both symptomatic and asymptomatic carotid artery stenosis patients."
C. Wissgott, MD

* Wissgott, et.al. J Endovasc Ther 2016.

Data Presented at CIRSE 2016

Laboratory engineering evaluations

- CGuard EPS provides high radial force and strong support in long stenotic lesions
- Structure adapted well to changes in vessel diameter and direction
- MicroNet mesh of CGuard EPS did not cause any measurable changes to specific mechanical parameters of the underlying stent
- CGuard EPS more readily adapts to vessel dimensions and shape than a competitor product



"The CGuard EPS is easy and safe to implant because it more readily adapts to the shape and diameter of the vessel wall versus other carotid artery stents."
C. Wissgott, MD

* Wissgott, C, 2016. Data presented at CIRSE 2016.

CGuard is a "Game Changing" Carotid Market Opportunity

Current standard of care: Carotid Endarterectomy (CEA) = Surgery

The risk of post-procedural cerebral events has been related to [conventional] carotid stents*

- Higher risks of stroke at 10 years appear to be attributable to the peri-procedural differences in risk**
- Mesh-covered carotid stents may lower the rates of peri-procedural stroke**

CGuard clinical studies have demonstrated superior safety

- CARENET
- PARADIGM
- PARADIGM 101
- Wissgott 30-patient independent study***

Immediate EU and Latin America commercial opportunity

- Majority of EU pursued via new strategic partner Penumbra
- Europe, Latin America and other regions are covered by experienced distributors
- U.S. development and clinical plan in process

"The most important theme during [EuroPCR 2016] was carotid artery stenting….[The double layered mesh stents] will resolve the main problem of carotid artery stents which was late embolic events."
A.Cremonesi
Chief of Cardiovascular Department at Maria Cecilia Hospital

* Musialek, et.al. Eurointerventions 2016;12 (5) August 2016. ** Brott, T. NEJM, March 17, 2016. *** Wissgott, et.al. J Endovasc Ther 2016.

Broad EU Commercialization Support from a Growing Neurovascular Leader

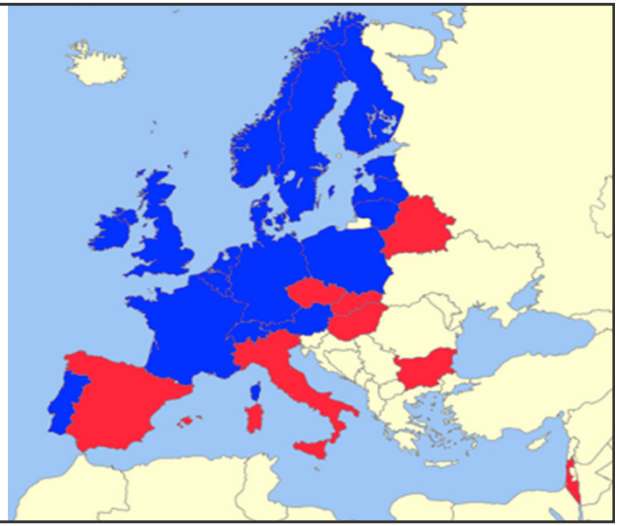
Penumbra

- Strategic distribution agreement with Penumbra
- 18 European markets with opportunity to expand
- Comprehensive neurovascular product portfolio
- CGuard is a synergistic product offering
- Growing direct sales force throughout Europe
- Establishing a direct sales force focused on peripheral vascular

CGuard Distribution

Penumbra (Direct) 18 Countries

InspireMD or Distributor



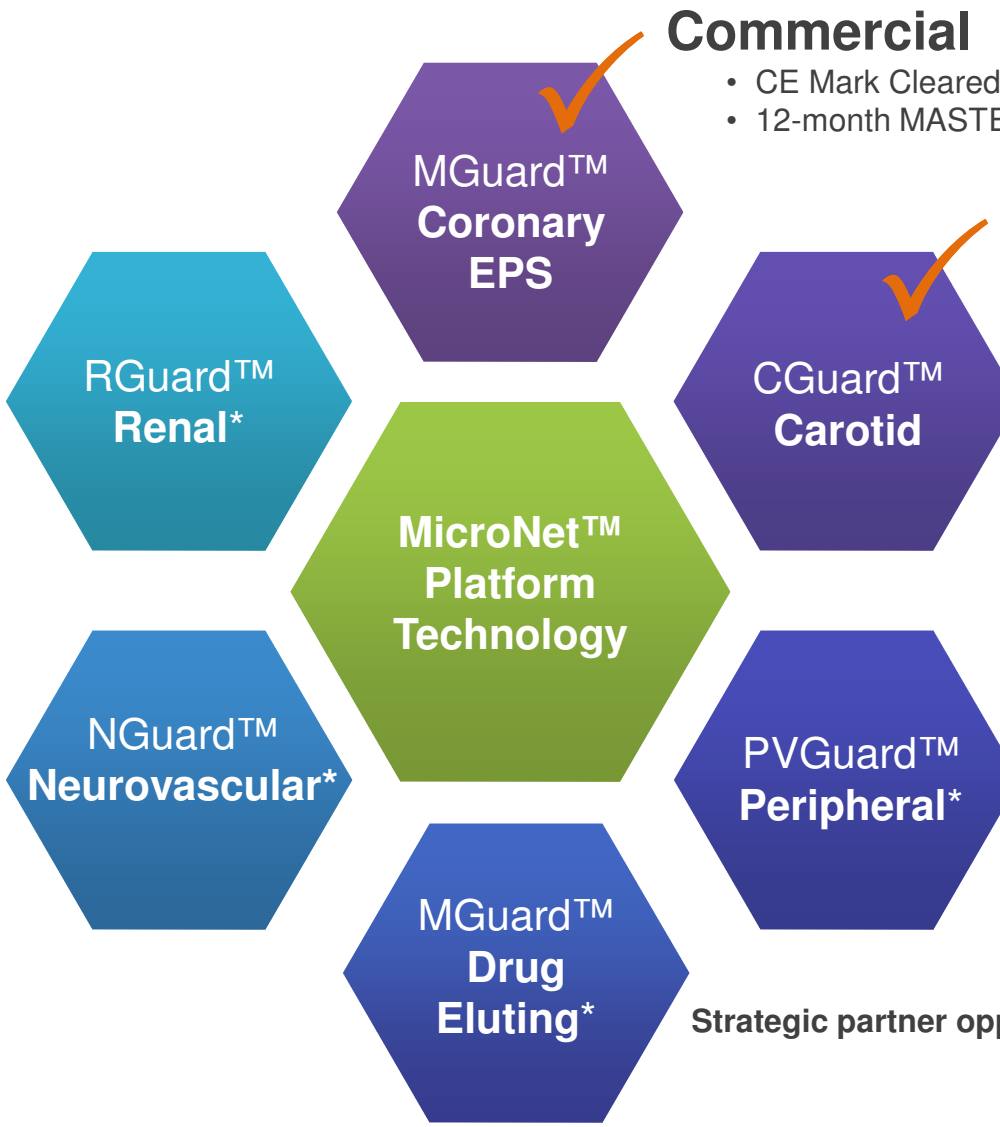
CGuard Country Case Study - Italy

194% sales growth in Q2 2016, compared to Q2 2015

20% growth compared to the Q1 2016

* *Setacci, et. al., J Cardiovasc Surg. 2015 May 21*

Expanding Pipeline Opportunities with MicroNet



Commercial

- CE Mark Cleared
- 12-month MASTER I, II

Commercial

- CE Mark Cleared
- CARENET Trial
- PARADIGM all-comer trials
- Wissgott 2016 data
- FDA IDE draft protocol synopsis
- Penumbra Strategic Partnership

Exploring Market Opportunity

Exploring Market Opportunities:

- Flow Diverter
- Intra-Cranial Stent

2017E CE Mark

Planned Submission for Flow Diverter

2018E development towards CE Mark Planned Submission

Strategic partner opportunity

** Planning & Development Phase*

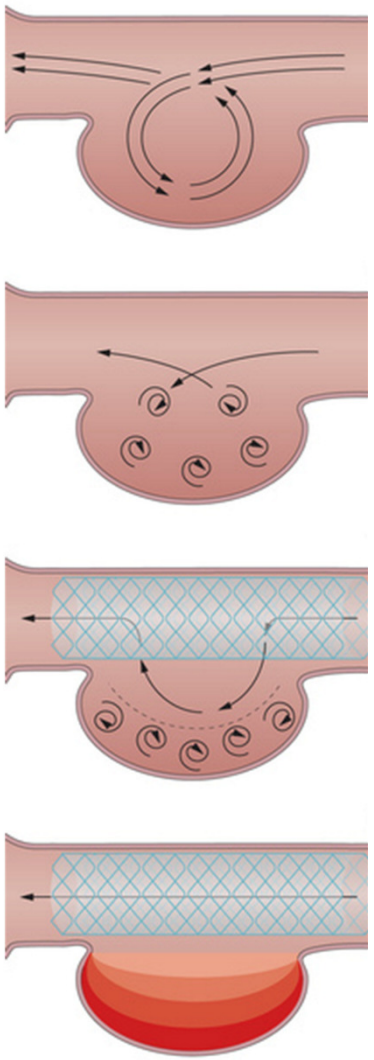
Flow Diversion for Neurovascular Aneurysms

Objective

- Seal the aneurysm and prevent rupture

Current device therapies

- Coils to pack the aneurysm
- Flow diverters
  - Highly flexible, dense metal “tube”
  - Placed in main artery to seal off aneurysm and cause aneurysm thrombosis
  - Precise delivery required to avoid blocking other vessels



http://www.nature.com/nrcardio/journal/v11/n2/full/nrcardio.2013.196.html

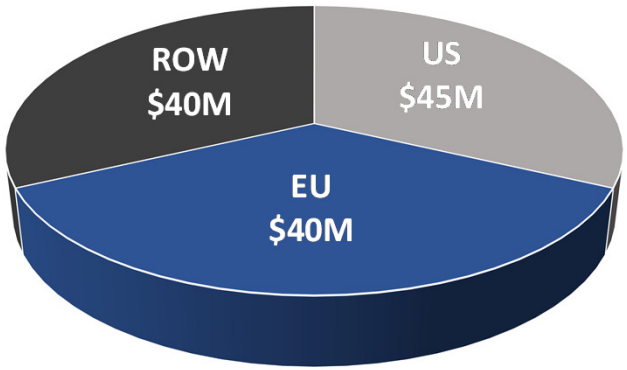
Innovation Enables Growth in the Neurovascular Market

Flow Diversion for Unruptured Brain Aneurysms

Next Generation Technology

- Aneurysm Therapy (all types): $550M*
- Flow diverters are estimated to be 25% of the aneurysm market
- Neurovascular products: estimated 15% CAGR from 2010-2016

Global Flow Diversion - $125M**

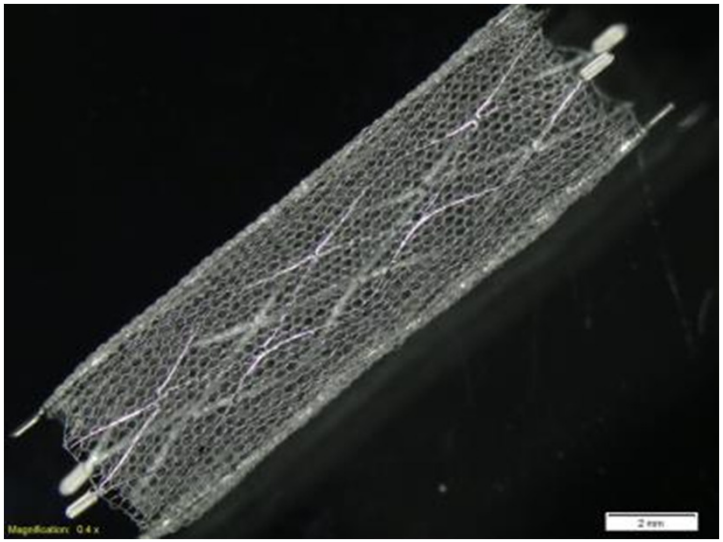


2014 Competitive Landscape: Relatively Fewer Players

Product	Company	Approval
Pipeline	Medtronic/Covidien	CE Mark 2014 FDA 2011
Surpass	Stryker	CE Mark 2010
Silk	Balt Extrusion	CE Mark 2008

* 2013 MRG Neuro Report, 2010 Ev3 Revenue Data ** 2014 projection based on 2013 actuals

InspireMD Flow Diverter Advantage



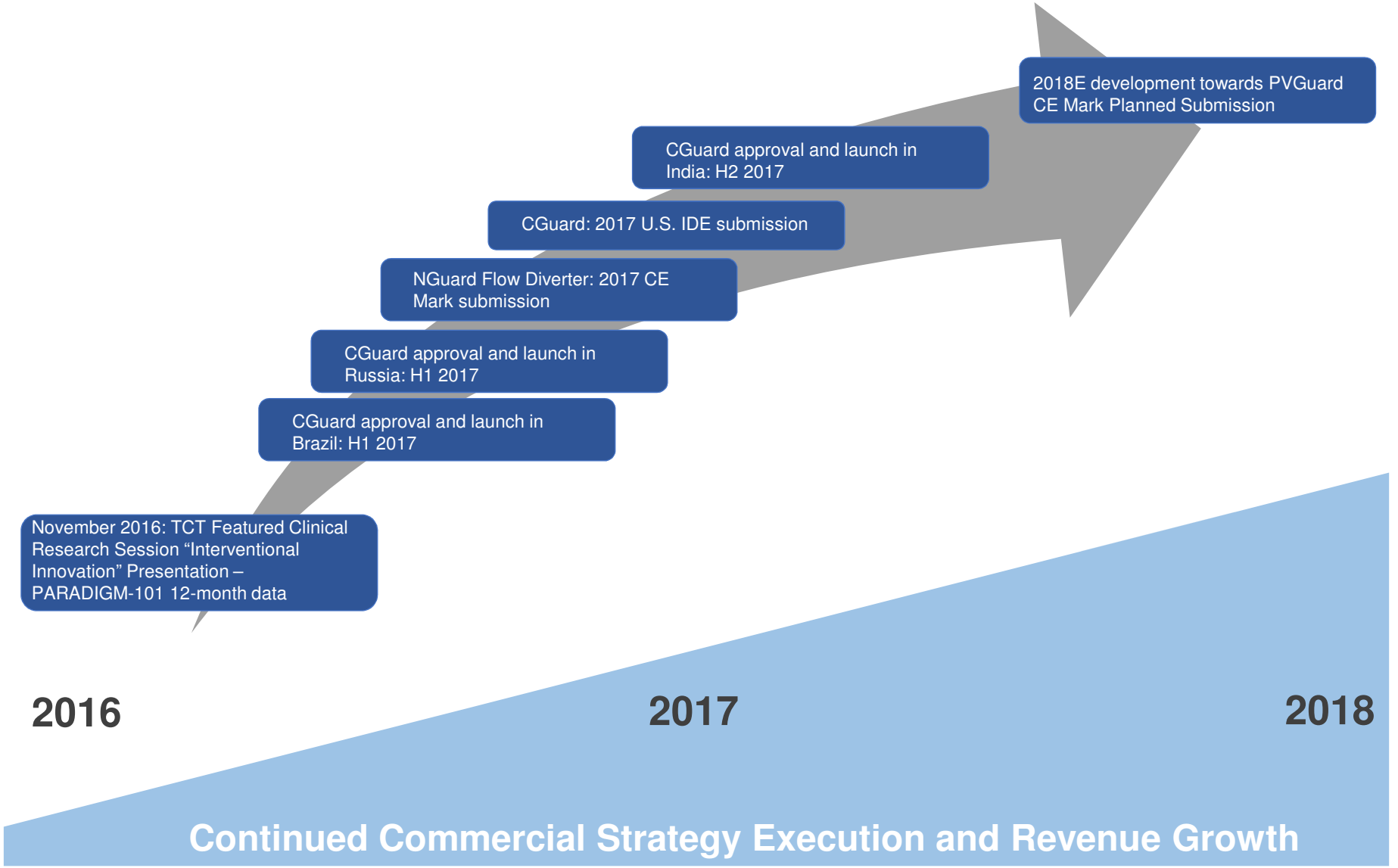
- Low profile, flexible, open cell scaffold = Easy to deliver
- Low metal ratio = Potential for reduced anti-thrombosis medication
- Re-accessible through MicroNet = Allows for further treatment, if needed which is impossible with current flow diverters
- Can be placed in side branches and bifurcations = Will not block blood flow into major side vessels, which is impossible with current technology
- Published success with MicroNet in coronary and carotid aneurysms

Intellectual Property Portfolio

- Proprietary platform technology supported by a robust intellectual property portfolio.
- Continue to strengthen and broaden patent protection globally.
- Progress over the last year imparts important rights on existing products and technologies and will enable future pipeline products.

PATENT RIGHTS	ISSUED	ALLOWED	PENDING
US	4	**1**	12
Rest of World (ROW)	16	**1**	14

Upcoming Anticipated Milestones



Leadership

Significant track records of success

Dr. James Barry	President and CEO	Boston Scientific, Pfizer
Craig Shore	CFO	Pfizer, GE
David Blossom	VP Global Marketing & Strategy	Boston Scientific, COVIDIEN
Dr. Sol Barer	Chairman	Celgene
Isaac Blech	Vice Chairman	cerecor, ContraFect, medgenics, sapience therapeutics
Michael Berman	Director	Boston Scientific, Velocimed™, LUTONIX
Paul Stuka	Director	OSIRIS, Fidelity INVESTMENTS
Dr. Campbell Rogers	Director	HeartFlow, Cordis a Johnson & Johnson company, HARVARD MEDICAL SCHOOL
Thomas Kester	Director	Kester Search Group® Clear objectives. Precise solutions., KPMG

Financial Snapshot

NYSE MKT: NSPR, NSPR.WS

Stock Price (10/14/16):	$2.65
Average Volume:	190 K
Shares Outstanding (9/30/16):	1.4 M
Shares Outstanding Including Future Pref. Stock Conv. (9/30/16):	3.6 M
Market Capitalization (10/14/16):	$9.6 M
Total Cash:	$0.9 M as of 6/30/2016 ($13M net proceeds from financing completed on 7/7/2016)
US Headquarters:	Boston, MA
International Headquarters:	Tel Aviv, Israel
# of Employees (9/30/2016):	36

Investment Highlights

- **Revenue growth** driven by broader EU and Latin American launch of **CGuard**
  - Strategic distribution partnership with Penumbra (NYSE: PEN)
  - Strong, and growing, direct sales teams across key countries
  - Significant growth in Italy over the last 4 quarters
  - Multiple and consistent clinical trial results using CGuard in a broad patient population, including high risk patients
- **Expanding opportunities** in the growing neurovascular and peripheral vascular markets
  - 2017E CE Mark Submission for NGuard
- **Broad portfolio** of patent-protected assets
- **Strategic collaboration opportunities** on multiple **MicroNet** product applications
- **Financial discipline** in line with development and growth initiatives

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