



CASE

Center for Regional
Economic Development



Innovation for Component Manufacturing

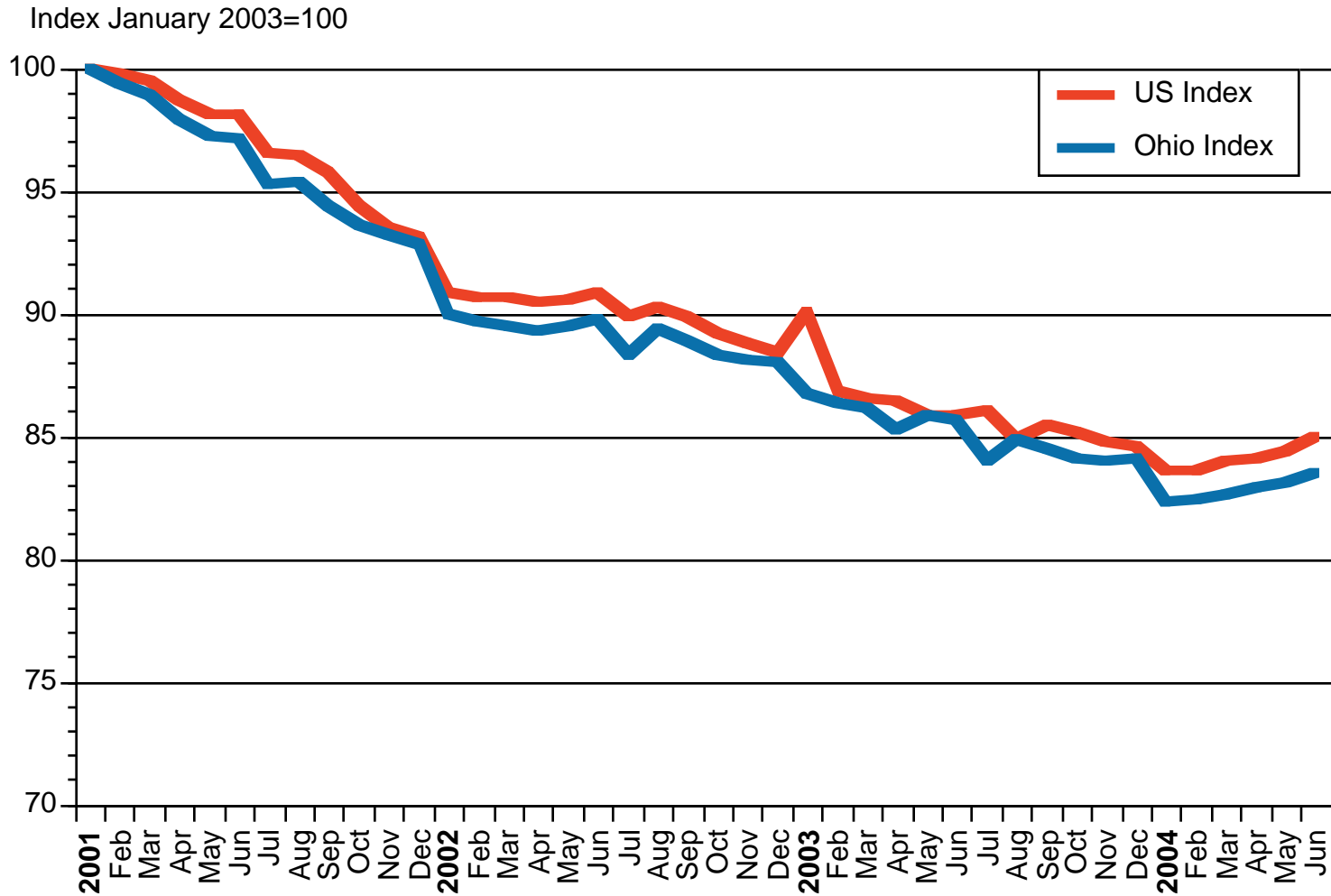
Ed Morrison

March 2005

Overview of the Presentation

- The current situation
- Case's research into component manufacturing
- The RAMTEC proposal

Since 2001, we have lost about 15% of our manufacturing base...



The problem is that we think we have time...

NEWS

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A historic loss

Oneida Ltd. closing Sherrill plant; 500 jobs gone
Fri, Sep 10, 2004

LINDA MURPHY
Observer Dispatch

Galesburg Maytag Plant Closes Doors

900 Workers Lose Jobs

AT&T will shed 7,000 jobs in consumer unit, analyst says

Sept. 10, 2004

Galesburg, Ill., this week closed its refrigerator

Breaking News

Report says high-tech jobs still in decline

by [Jeffrey Silva](#)

Sept. 14, 2004 1:28 PM EST

WASHINGTON—A new report funded by the Communications Workers of America shows U.S. high-technology workers still face chronic unemployment and a serious jobs deficit as the economic recovery being declared three years

The Oneida brand name will continue, however, with the flatware produced by independent suppliers.

Janet Getek of ROR, a local television station, was seen outside the Oneida plant on Tuesday evening in Sherrill. She is the daughter of the plant's closure of the Sherrill plant, however, will remain

"Oneida reached this decision while recognizing the hardships this causes for our employees, as well as the importance throughout our company's history," Oneida Ltd. Officer Peter J. Kallet said in a prepared statement.

are expecting word of thousands of pink slips, perhaps

John P. Lehman, a senior advisor at Lehman Brothers, wrote a report this week that estimates a potential layoff of as many as 7,000 job cuts on the consumer unit before Oct. 31. He also estimates AT&T will take a write-off to reflect its pullback from the marketing of traditional

THE TICKER MIDWEST BRIEFS

GM plant closing to cut 3,000 jobs

Tribune staff, wire reports
Published March 2, 2005

General Motors Corp. said Tuesday that it would lay off nearly 3,000 hourly workers at its Lansing car assembly plant in Michigan this spring. The plant makes the Pontiac Grand Am and the Chevrolet Classic. Both models are being discontinued, so production at the plant is ending, GM spokesman Stefan Weinmann said. Many of the employees are expected to fill positions at GM's new Lansing Delta Township assembly plant, which is under construction but expected to start production in 2006.

The good news...manufacturing is in the news...

CRAINS Cleveland .com

Thursday, February 17, 2005

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Bright spots in manufacturing

By **BRANDON GLENN**

While the last few years haven't been the best of times for Northeast Ohio manufacturers, Stephen Gage, president of manufacturing consultant Camp Inc., says some sectors of the industry have held their own during the difficult period.

Dr. Gage, in a speech Wednesday night at the Embassy Suites Hotel in Independence, listed several sectors in the area that have outperformed the rest of the nation.

Monday, February 14, 2005

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Resurrecting manufacturing

By **BRANDON GLENN**

David O'Halloran, an operations expert from management consultants McKinsey & Co., thinks he has the cure for what ails manufacturing in Northeast Ohio.

In a speech Monday to the Ohio Venture Association at the Union Club in downtown Cleveland, Mr. O'Halloran recommended a three-pronged approach to get manufacturing in Northeast Ohio back on its feet: improving education among executives, managers and on-the-floor employees; improving access to customers, suppliers and investment capital; and fostering changes in public policy, including tax and tort reform.

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This Week's Guests:

John Colm & Pat Bush

WIRE-Net 

[WIRE-Net](#) is a non-profit, membership organization devoted to the advancement of manufacturing on Cleveland's west side. Since 1988, WIRE-Net's mission in Cleveland has to retain, grow and attract manufacturing-related businesses and to connect leaders to each other and the west side community.

Although manufacturing techniques and the economy have changed many times over the past several years, WIRE-Net's commitment to the success of manufacturing in Cleveland remains the same.



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Call in during the show at 216-578-1300

Manufacturing challenges

- Some manufacturers don't adopt lean manufacturing
- Some weaknesses in management education and technical training
- Some manufacturers are not investing in new product development
- Some manufacturers are not investing in automation solutions
- Many manufacturers are isolated from one another

-
- Addressing these issues will require multiple responses from multiple parties
 - Today, we are talking about component manufacturers
 - We are focusing on innovation in firms from 10 to 100 employees

Case research on component manufacturing

- Sue Helper and Marcus Stanley: Part of a multi-year project on component manufacturing in the Midwest
- Funded by Sloan Foundation
- Included research teams in Ohio, Wisconsin and Michigan

Helper and her partners have conducted extensive research into component manufacturing

COMPONENT MANUFACTURING:
CREATING AN ADVANCED MANUFACTURING SECTOR

FINAL REPORT FOR THE
ALFRED P. SLOAN FOUNDATION

March, 2004

Submitted by:

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**DANIEL LURIA (MICHIGAN MANUFACTURING TECHNOLOGY
CENTER)**

**JOEL ROGERS & JONATHAN ZEITLIN (UNIVERSITY OF
WISCONSIN, MADISON)**

Paper to be presented at the Conference on

Clusters, Industrial Districts and Firms:
the Challenge of Globalization.

*Conference in honour of Professor Sebastiano Brusco
Modena, Italy. September 12-12, 2003*

**INDUSTRIAL CLUSTERS, SOCIAL CAPITAL, AND
INTERNATIONAL COMPETITION IN THE U.S. COMPONENT
MANUFACTURING INDUSTRY**

ABSTRACT

We analyze survey data from U.S. firms that primarily manufacture components for sale to other manufacturers. We find that firms that are located in industrial clusters are more productive and also lose less work to foreign competitors from lower-wage regions. We use survey responses to test social networking based explanations of this finding. Single plant firms that report learning valuable ideas from informal contacts with other firms are more productive and more successful in international competition. However, this communication is just as likely to be with faraway firms with nearby firms, so it does not explain the productivity advantage of clusters.

August 4, 2003

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Key Words: Industrial Districts, Manufacturing, Productivity, Social capital

OEM's: 3 patterns of behavior

- Outsourcing more (both here and abroad)
- Delegating more work to component suppliers
- Squeezing their suppliers on cost, quality and productivity

Among component suppliers

- Wide variation in productivity:
 - Top 10% of firms are twice as productive as the average
- Small component manufacturers are specializing
- Component manufacturers that cluster together in urban areas are more productive

The conclusion:

- Firms should invest continuously in upgrading
- Local policies should be aligned to support these investment strategies
- Diverse supplier needs requires different types of support: No “one size fits all”
- Some of the most interesting alternatives come from Europe

Wisconsin Consortium provides an example...

- Consortium of OEMs to address OEM-Supplier issues
- Provides single voice to training providers
- Promotes mutual learning by providing cross supplier communications



Obstacles to manufacturing innovation in smaller firms

- Management knowledge, awareness, attitudes
- Little cross-learning among suppliers
- Gaps in technical and management training: no clear continuing education
- For equipment vendors, the cost to serve the segment is relatively high

The RAMTEC Proposal

- An outgrowth of REI.Tuesday
- Developed “on the shop floor” by component manufacturers
- Uses an established model of economic development: collective or collaborative
- Provides a targeted response to a continuing challenge of falling behind

RAMTEC Functions

- Automation solutions for smaller manufacturers
- Management and technical education at all levels (Firm-driven, not client-driven)
- Lean automation research, development and product design

RAMTEC Business Model

- Aggregate demand among small component manufacturers
- Accelerate adoption through shared learning
- Commissions on automation equipment and tooling
- Contract production
- Training contracts from WIBs
- Research and applications contracts

RAMTEC Operations

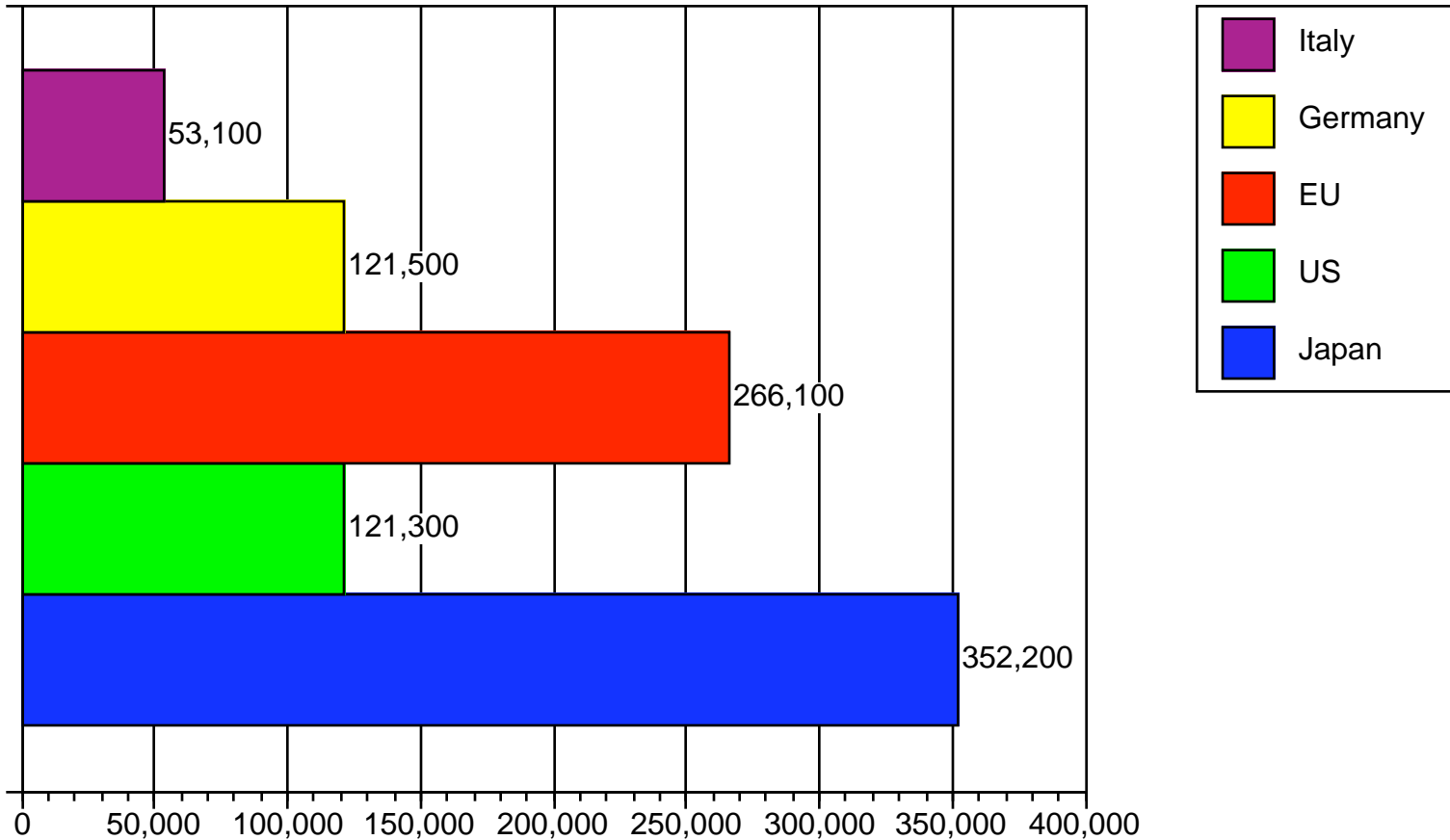
- Manufacturing as clean, green and efficient
- Focus on accelerating innovation with existing technologies
- “State of the Art” facility to reposition manufacturing in the regional mindset
- Managed by and for the benefit of the component manufacturers

RAMTEC Values

- Transparency
- Collaboration
- Professionalism
- Flexibility
- Speed
- Pragmatism

One indicator: U.S. lags in installed robotics

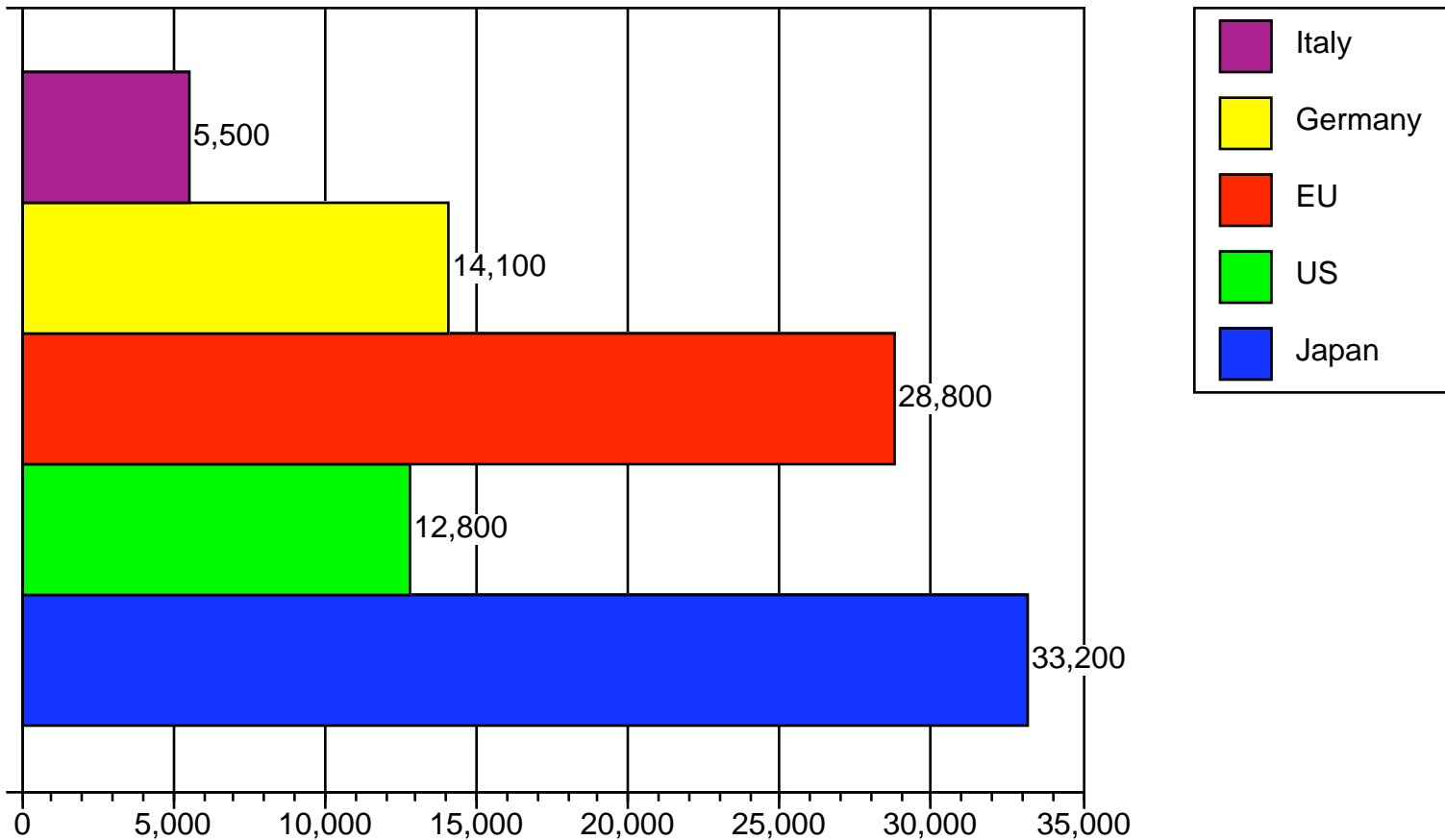
Installed Robotics Base, 2004



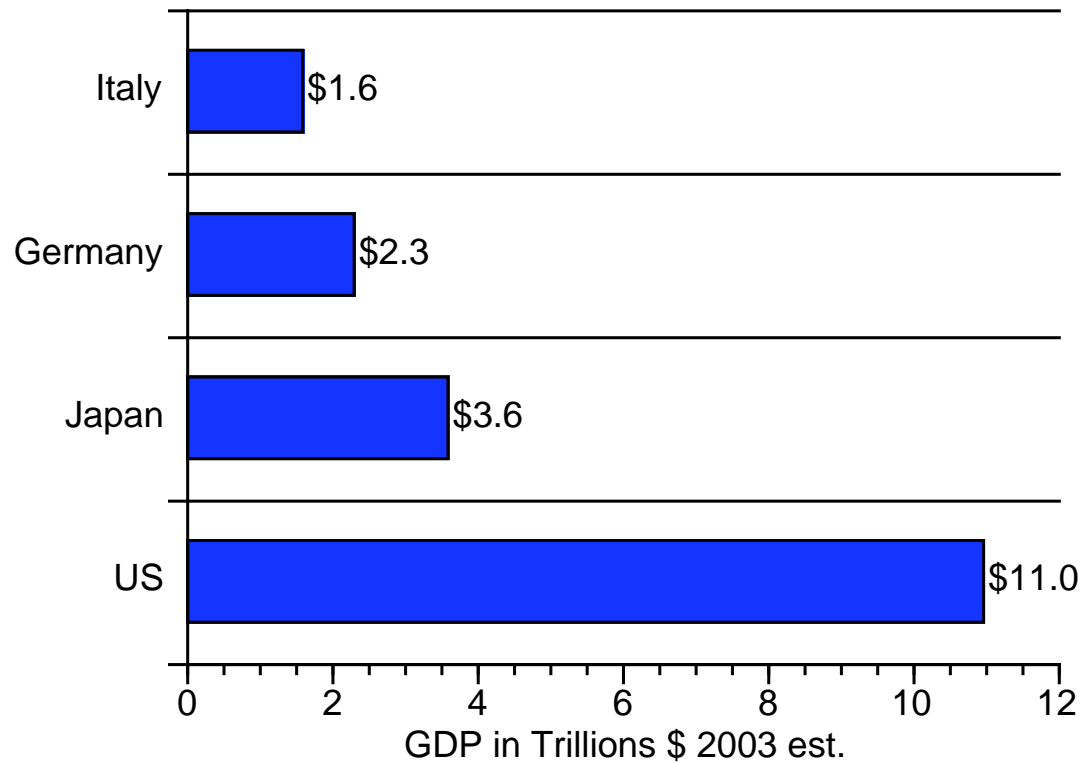
Source: UN Robotics 2004

The U.S. is not catching up in robotic installations

New Robotic Installations, 2004



Here is the size of the different economies



VW's Transparent Factory: An Assembly Plant Shows a Different Image of Manufacturing



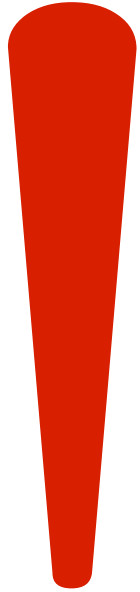
VW's Transparent Factory: An Assembly Plant



VW's Transparent Factory: An Assembly Plant



Learn more



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