



# Global Market Information Large-Screen Displays



**PACIFIC MEDIA ASSOCIATES**

*Quality, Experience, Integrity.*



## **Our Mission: Devoted to Large-Screen Displays**

Pacific Media Associates (PMA) is a global high-tech market information firm that specializes in front projectors, rear projection, and large flat panel display products, markets, and manufacturers. We cover all technologies that can produce a large picture on a wall or screen from an electronic (video or computer) signal. With a full suite of products and services along with a proven mix of quality, experience and integrity, PMA continues to set the platinum standard in demand-side market information for large-screen displays.

### **Table of Contents**

3	What's New in 2006
4	Features and Benefits
5	PMA's Research Team Experience
8	Product Categories – Front Projectors
10	Product Categories – Rear Projection
12	Product Categories – Flat Panel Displays
14	Worldwide Market Coverage Details

## **PMA**

### **What's New in 2006**

#### **For All Categories**

- Addition of interactive data cubes for delivering PMA's market statistics
- Addition of annual EMEA Retailer / Reseller Survey.

#### **For Front Projectors**

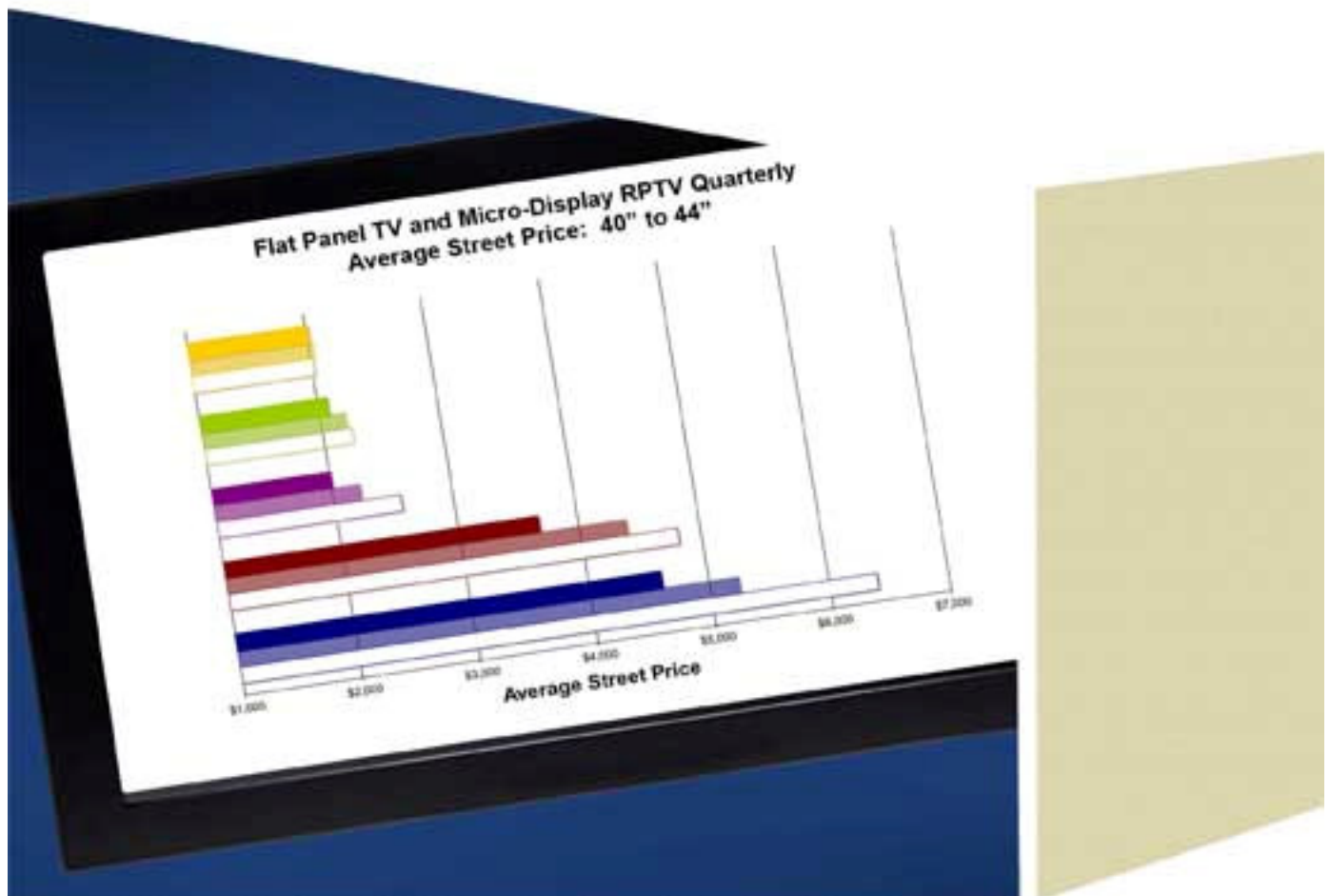
- Addition of EMEA and Asia Quarterly Market Outlooks
- Market Outlook: Quarterly EMEA Developments Info-Mail starting with 2005Q2

#### **For Rear Projection**

- Addition of annual Retailer / Reseller Survey
- Addition of annual End-User Survey

#### **For Flat Panel Displays**

- Addition of annual Retailer / Reseller Survey
- Addition of annual End-User Survey



## PMA's Features and Benefits

### Coverage Scope

#### Features

Cover all major alternatives for large-screen viewing experience: front projectors, rear projection and flat panel TVs / monitors

Cover both LCDs and plasmas within flat panels; both CRTs and microdisplays within rear projection

Cover both Consumer and Professional end user markets

Survey both retailers and resellers to determine true sell-through pricing and volumes

Cover both supply and demand sides of the equation

Cover world: 60+ countries, 3 regions, total

#### Benefits

Assures realistic consideration of all, no favorites

Assures realistic consideration of both technologies  
More cost-effective for clients

Assures every model and unit is counted  
Minimizes ambiguity of scope

Collect true weighted sell-through pricing (versus web price checks or spot price checks)  
Provides unbiased measure of revenues and spending  
Best guidance for demand forecasting

Focus on balancing what **could** be produced against what **will** be purchased  
Improves insights and accuracy of estimates

Aids production planning  
World totals needed by component manufacturers

## PMA's Features and Benefits

### Methodology

#### Features

Collect data from all key sources: manufacturers, channels, end-users

Maintain a by model, by-country SQL Server database of shipments, prices, specifications

Track approximately 8,000 products, each with up to 120 fields in SQL Server database

Prepare detailed forecasts based on industry-wide technology road maps

Combine sell-in census and retailer / reseller sell-through to enable projection of raw retailer sample data to totals

Have a staff of senior expert specialists

Provide interpretation, not just raw numbers

#### Benefits

Achieve better accuracy and understanding from multiple sources than single source

Enables "sweet spot" analysis for product planning  
Permits flexibility in defining geographical regions

Motivates retailer/reseller data providers with completeness  
Always ready for client inquiries

Forces explicit assumptions and enables detailed discussions. Removes burden from clients

Matches manufacturer and retailer habits  
More accurate than channel coverage method

Assures correct actuals and realistic forecasts  
Uncovers non-obvious phenomena

Offers actionable findings



## PMA's Research Team

Delivering high-quality market information takes a high-quality team of experts. **RELEVANT EXPERIENCE** counts for a lot in the market information business, and PMA's research team has the **HIGHEST AVERAGES** of any display market research team today. Our team members have held a wide range of positions at leading manufacturers and market information firms.

**Dr. William Coggshall** is the founder and President of Pacific Media Associates. His entire career has been devoted to high-technology research and consulting, including co-founding high-tech market information giant Dataquest. Dr. Coggshall has been covering large-screen displays since the introduction of the OHP panel in April 1986. His knowledge of large-screen display technology, products, markets, and companies is encyclopedic. As an acknowledged worldwide expert on large-screen displays, Dr. Coggshall often speaks about large-screen displays at industry conferences and is frequently quoted by national news, business, and trade publications. An "analyst's analyst," he is highly respected for his high standards of methodology, quality, and ethics. Prior to founding Pacific Media Associates, Dr. Coggshall founded Multimedia Research Group Inc., and Software Access International Inc., and previously engaged in industry research at Creative Strategies Inc., and in operations research at SRI International. Dr. Coggshall holds a bachelor's degree in mechanical engineering with honors from Cornell University and a doctorate in industrial engineering from Stanford University, and has earned the Chartered Financial Analyst designation.

**Rosemary Abowd** is Vice President of Pacific Media Associates, and heads the flat panel displays and rear projection research. She has been involved with the audio-visual business since 1984, working in planning, sales, marketing, product marketing and new business development at several A/V companies including Genographics and InFocus Systems. She has been involved in the transition of the presentation business from analog-to-digital, working closely with Microsoft as a third-party developer for PowerPoint for over a decade. She then moved into market information focusing on presentation tools, large-screen display technologies and the distribution channels for these products. Her clients included Intel, Tektronix, Xerox and many professional A/V resellers. Ms. Abowd, who has been affiliated with Pacific Media Associates since 1999, holds a bachelor's degree in finance and accounting with highest honors from the University of Notre Dame and a master's degree in business administration with highest honors from Syracuse University.

They bring unparalleled first-hand knowledge and skill to their work:

- An average of 25 years of total business experience
- An average of 15 years of displays industry experience
- An average of 14 years of market information experience

**Michael Abramson** is Vice President of Pacific Media Associates, and heads the front projectors research. Mr. Abramson is responsible for all worldwide research activities related to front projectors, including shipment, street price, revenue forecasts, technology road maps, monthly sales tracking services, and annual industry surveys. Since joining PMA in 1995, Mr. Abramson has held progressive positions that have helped the company earn recognition as the worldwide leader in front projection research. Prior to joining Pacific Media Associates, he was a research analyst for the Peninsula Times Tribune in Palo Alto, CA and served as a research consultant for high-technology and media companies in Silicon Valley. Mr. Abramson graduated from Stanford University with bachelor of arts degrees in economics and journalism.

**Linda Norton** is the Director of Channel Development at Pacific Media Associates. Prior to joining the PMA team, she spent 11 years in the presentation / display products industry in a variety of sales, marketing and management positions with companies such as Boxlight, In Focus and Genographics. Positions with those companies included Regional Sales Representative, National Account Manager, New Product and Channel Development and Product Marketing Management. Her hands-on experience in the display products industry makes her uniquely qualified to work with our tracking panel participants and clients alike. Prior to working in the display industry, Ms. Norton held sales and management positions in the computer rental, employment recruitment and retail segments. At Pacific Media Associates her primary responsibilities include recruiting and coordinating with resellers and retailers for our family of Tracking Service panels, preparing participant data for input into PMA's SQL Server database, and working with manufacturers to ensure that PMA's product database is up to date. She has been at PMA since 2002. She holds a bachelor's degree in business administration with an emphasis in marketing from California State University, Long Beach.



## PMA's Research Team Experience

**Candace Hogan** is a Senior Research Associate at Pacific Media Associates. Her professional career began in telecommunications engineering with ATT, Southern Bell. She continued her career in the high tech sector in strategic planning, international marketing and market information at Sensormatic Electronics and Racal-Milgo Electronics. Additionally, she has volunteered as treasurer for Ballet San Jose Silicon Valley's volunteer council with responsibility for all financial accounting and reporting, and inventory management. With over 21 years of professional experience, she has developed a unique and deep understanding of the technical, financial and business issues relating to large screen display technology products, markets, and companies. She has been at PMA since 2002. Ms. Hogan received undergraduate degrees in ocean and electronics technology with highest honors from Florida Institute of Technology, and holds an MBA in marketing.

**Krista Jambor** is a Research Associate with Pacific Media Associates. She has made a career of aiding companies with the use of market information and data interpretation to reach their sales and revenue goals. Prior to working with PMA, she had eight years of product management and business experience working with data distributors and manufacturers, including more than seven years of consulting experience conducting market information projects and initiatives for the consumer electronics, business-to-business, healthcare, and publishing industries. She also has extensive experience providing client service and building business relationships. She started her career with NPD and worked there for four years as a Project Director in the Video Products Group of Intellect Market Tracking. Ms. Jambor holds a bachelor's degree in business administration with an emphasis on marketing and advertising from C.W. Post College, Long Island University.

**Richard Petersen** is a Senior Research Associate at Pacific Media Associates. He spent eight years in the large-scale data warehousing field as analytical services manager servicing over 5,000 users with over 200 databases. Prior to his experience in data warehousing in the retail segment, he was an international systems consultant for a worldwide consumer goods manufacturer. He also has several years experience as technology manager for a major airline loyalty program and a paper/wood products manufacturer. Mr. Petersen first worked with PMA in 1999-2001 when he provided data management services for PMA's Projector Reseller Tracking Service, and rejoined PMA recently to provide data management technology services. He is a graduate of Boise State University in general business. During his career he has served on a series of IT-oriented committees, most recently on the Business Objects NW Regional User Group.

**Dr. Peter Philippi-Beck** heads up PMA's large-screen displays market information activities for EMEA. He has extensive experience with the large-screen displays industry through his business development, acquisition, and market information responsibilities at Triumph Adler (TA), which helped TA become a major force in front projectors and related products in Europe. He left TA to join the University of Applied Science in Ravensburg, Germany, where he teaches international business. He is a founding principal of EMEA-Consultants, a network of specialists who focus on the audio-visual market. Dr. Philippi-Beck holds a degree in economics from the Ludwig Maximilians University of Munich and a doctorate in economics from the University of German Federal Armed Forces.



## PMA's Research Team Experience

**Yoshiharu Uematsu** is Senior Correspondent in Japan for Pacific Media Associates. Previously, he had worked for a Japanese electronics manufacturing company in Tokyo, Japan, where he was responsible for business development, product marketing, and market development in the Japanese and international markets. His international business career at the company started when he participated in the Japanese nationwide project in the mid 1960's to build the then most advanced data processing and data display system, jointly with Hughes Aircraft Company, USA. At the company, he also worked for marketing and program administration of various international projects for Japan. These included vehicle-mount data processing and display systems, ship-borne display systems, and airborne systems, which included the most modern technology of data and image display systems. From the mid-1980s through 1990s, he was responsible for the marketing of industrial electronic products of the company, such as infra-red thermography, image display and projection systems, and precision electronics components, to the Japanese and international markets. He has been associated with PMA since 1998. He holds a bachelor's degree in economics (financial systems) from Tokyo Municipal University.

**Fred Krazeise** is a Senior Research Associate at Pacific Media Associates. He is a marketing consultant with more than 16 years of proven B2B and B2C experience. He is skilled at undertaking research to conduct strategic marketing campaigns that truly deliver return on investment, and has been an early adopter of CRM and Internet marketing tactics. Prior to joining PMA, he was Associate Vice President for Marketing & Product Planning at Sharp Electronics Corporation. He was responsible for product management and marketing of Sharp's professional projection and LCD flat panel displays business, where he help helped to increase sales by expanding distribution channels. At the same time, he dramatically cut marketing costs through more effective use of advertising resources. Prior to that, he was the Director of Marketing at PC Data (since acquired by NPD), where he accelerated revenue growth for its Internet audience measurement business by implementing Internet, email marketing, sales force automation and other CRM systems to support to support the sale of company's hardware, software and Internet market research services. Mr. Krazeise holds a bachelor's degree in history and business administration from the University of Maryland, and a master's degree in education from Chapman College.

**Peter Teige** is a Research Associate, Front Projectors at Pacific Media Associates. He has a twenty-five year career in the market research business, including work at Dataquest, where he co-founded the PC service, InfoCorp, Survey.com, and Taligent. Peter has also been a high-technology strategy consultant for Internet, IT, and media clients focused on emerging electronic technologies, markets and users. He has broad expertise in market/business development, research and competitive analysis, and is a skilled analyst with experience in the enterprise, small/medium business, and consumer/retail market segments. Peter holds a bachelor of arts degree in distributed studies from the University of Colorado and a master of science degree in cybernetic systems from San Jose State University.

**Dr. Alfred Poor** is a Senior Research Associate and Senior Editor at Pacific Media Associates. He brings more than 22 years of experience as a freelance writer and technology consultant, with particular expertise in the display industry. Dr. Poor has an international reputation in the display industry. He was a charter member and past Chair of the Display of the Year Awards Committee for Society for Information Display (SID), and is currently the Chair of the Delaware Valley Chapter of SID. He was also a Contributing Editor with SID's magazine, *Information Display*, for which he edited or wrote more than 100 articles in recent years. He has written extensively about displays for the computer trade press; he was affiliated with *PC Magazine* for more than 20 years, where he was a Contributing Editor until March 2005, and was the magazine's first Lead Analyst for Business Displays. He has played key roles in display product testing for *PC Magazine*; he developed the rigorous testing protocols for monitor and projectors that have become the standard for product comparison. He is President of Working Papers which provides technical writing services for a range of companies, including the display industry. He holds degrees from Harvard College and Union Graduate School.



## Product Categories – Front Projectors

### Industry Service: Provides Solid Foundations of Facts and Figures

#### Quarterly Market Outlooks

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Manufacturer sell-in census of past quarters, forecast of future quarters and years

Long-term forecasts based on industry-wide technology road map

Resolution, size, weight, brightness, technology, end market, and price range breakdowns by units, street prices, and revenues

Trends in “sweet spots”: combinations of resolution, size, and brightness

Market shares by units and revenues

Geographic scope: Worldwide, Americas, Asia, EMEA

Separate coverage by individual country, sub-region, region, and world

#### Monthly Retailer Advertising Analysis (United States)

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Prices advertised by largest American retailers, sorted by product category, screen size, and technology

Includes comments from PMA’s category experts

#### Annual Retailer / Reseller Survey (North America / EMEA)

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2005 is eleventh annual version (North America) of this original, and best, survey of retailers / resellers

Sample from the most comprehensive retailer / reseller database from any independent source

Conducted via Web to maximize response rate and assure data integrity

#### Annual End-User Survey (North America)

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Typical major question groups that reveal perceptions and intentions of owners and shoppers include:

- Usage profile, demographics
- Ownership and intention.
- Assignment and usage within organization, location within home
- Information sources & purchasing sources
- Features and functions, brand preferences

2005 sample of 1,000+ respondents, including individual consumers, individual workplace users, and workplace decision-makers

Conducted via Web to maximize response rate and assure data integrity

#### Newsletters

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Event-driven to match pace of industry developments

Comprehensive table of new product introductions plus individual articles about especially notable ones

Also includes news about manufacturers, retailers, resellers, and technology

#### Unlimited Free Inquiry Privilege

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Immediate access to our experts for facts, figures, judgment

Includes custom queries of SQL Server database





## Product Categories – Front Projectors

Channel Tracking Services: Deliver Monthly Sell-Through Data

### Separate Tracking Services

Pro AV Resellers

Retailers (both storefronts and direct marketers)

Distributors (wholesalers)

### Composite Channel Trends (United States)

Sell-through projection for major U.S. distribution channels

**Best-selling models' shares, street prices, and days inventory**

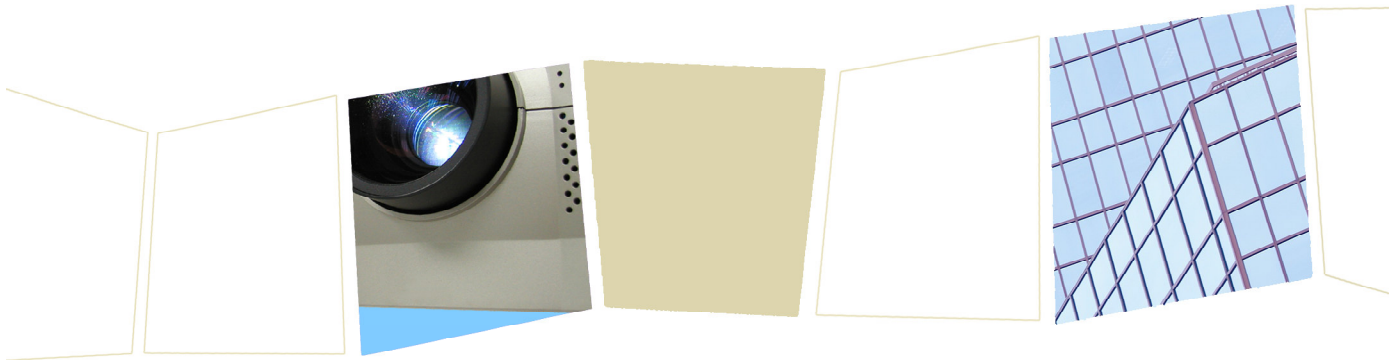
**Manufacturer shares by units and revenues**

**Unit shipments, dollar shipments, inventories, and average street prices by Resolution, Size, Brightness, Technology, and numerous combinations of these parameters**

### Excellent sample

Identical set of resellers each month—provides true trends

Significant and sophisticated participants (e.g., for Pro AV channel the participating resellers sell 38% of all Pro AV units in North America)





## Product Categories – Rear Projection

Industry Service: Provides Solid Foundations of Facts and Figures

### Quarterly Market Outlooks

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Manufacturer sell-in census of past quarters, forecast of future quarters and years

Long-term forecasts based on industry-wide technology road map

Screen size, resolution, tuner, technology, end market and price range breakdowns by units, street prices, and revenues

Trends in “sweet spots”: combinations of screen size, resolution, tuner

Market shares by units and revenues

Geographic scope: Worldwide, Americas, Asia, EMEA

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## Product Categories – Rear Projection

Channel Tracking Services: Deliver Monthly Sell-Through Data

**Best-selling models' shares, street prices, and days inventory**

**Manufacturer shares by units and revenues**

**Unit shipments, dollar shipments, inventories, and average street prices by Resolution, Size, Tuner, Technology, and numerous combinations of these parameters**

**Excellent sample**

Identical set of resellers each month—provides true trends

Significant and sophisticated participants





## Product Categories – Flat Panel Displays

Industry Service: Provides Solid Foundations of Facts and Figures

### Quarterly Market Outlooks

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Manufacturer sell-in census of past quarters, forecast of future quarters and years

Long-term forecasts based on industry-wide technology road map

Screen size, resolution, tuner, technology, end market and price range breakdowns by units, street prices, and revenues

Trends in “sweet spots”: combinations of screen size, resolution, tuner

Market shares by units and revenues

Geographic scope: Worldwide, Americas, Asia, EMEA

Separate coverage by individual country, sub-region, region, and world

### Monthly Retailer Advertising Analysis (United States)

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---

Immediate access to our experts for facts, figures, judgment

Includes custom queries of SQL Server database



## Product Categories – Flat Panel Displays

Channel Tracking Services: Deliver Monthly Sell-Through Data

### Separate Tracking Services for:

Consumer Retailers (both storefronts and direct marketers)

Professional Resellers

**Best-selling models' shares, street prices, and days inventory**

**Manufacturer shares by units and revenues**

**Unit shipments, dollar shipments, inventories, and average street prices by Resolution, Size, Tuner, Technology, and numerous combinations of these parameters**

### Excellent sample

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Significant and sophisticated participants





## Worldwide Market Coverage Details

### Americas

#### North America

United States  
Canada

#### Latin America

Mexico  
Other Central/Caribbean countries  
North Latin American countries

Argentina  
Brazil  
Other South Latin American countries

### Asia

Australia  
Bangladesh  
China  
Hong Kong  
India  
Indonesia

Japan  
Korea  
Malaysia  
New Zealand  
Pakistan  
Philippines

Singapore  
Sri Lanka  
Taiwan  
Thailand  
Vietnam  
Rest of Asia

### EMEA

#### Western Europe

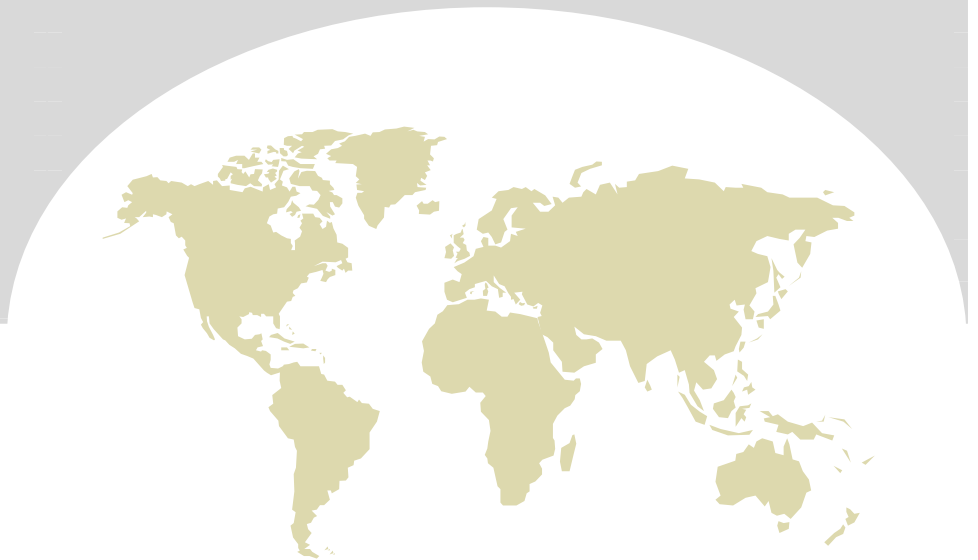
Austria  
Belgium  
Denmark  
Finland  
France  
Germany  
Greece  
Iceland  
Ireland  
Italy  
Luxembourg  
Netherlands  
Norway  
Portugal  
Spain  
Sweden  
Switzerland  
United Kingdom

#### Eastern Europe

Bulgaria  
Czech Republic  
Hungary  
Poland  
Romania  
Russia  
Slovakia  
Slovenia  
Ukraine  
Rest of Eastern Europe

#### Middle East and Africa

Egypt  
Israel  
Saudi Arabia  
South Africa  
Turkey  
United Arab Emirates  
Rest of Middle East  
Rest of Africa



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