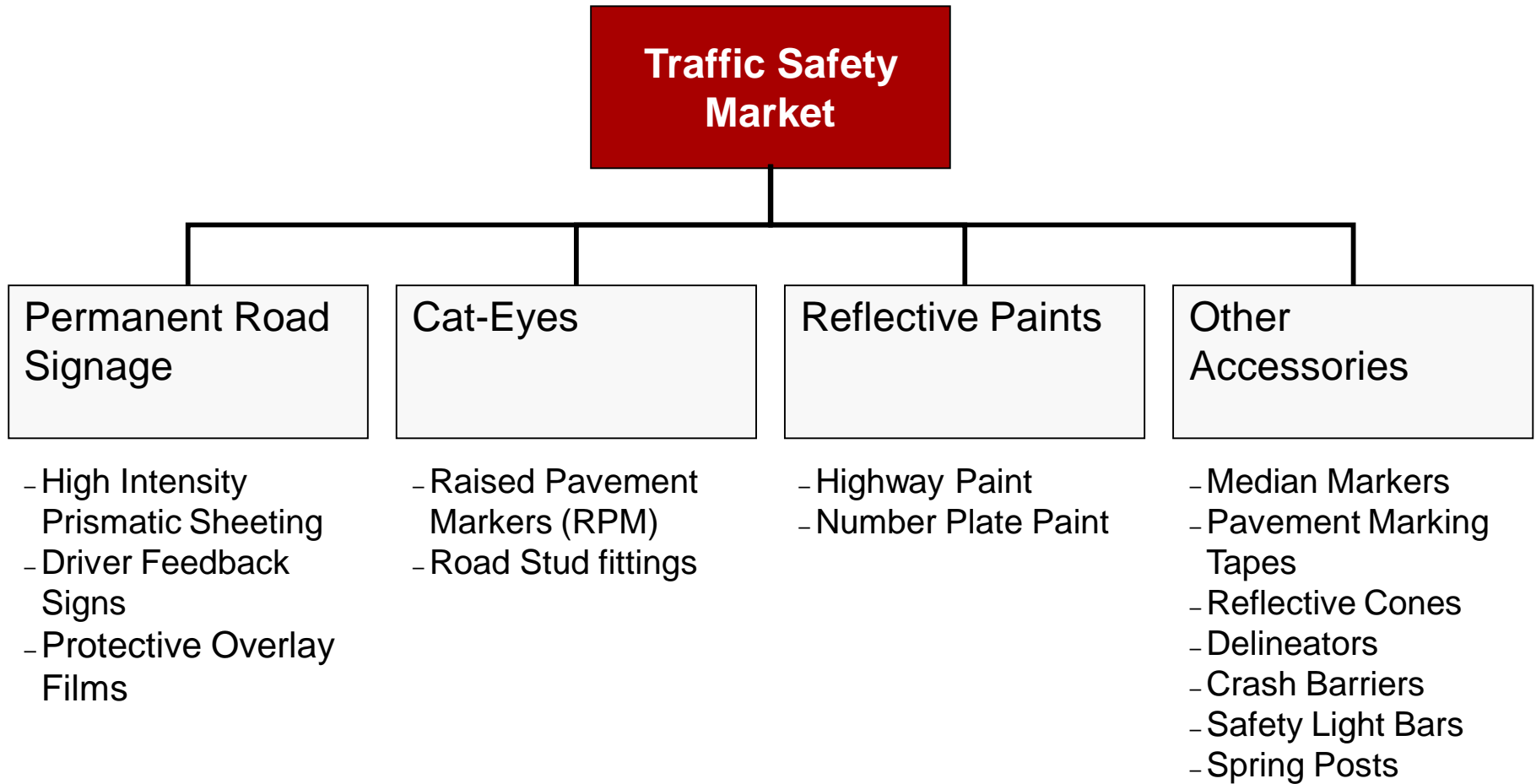


Traffic Safety Products Market Analysis

Key Assumptions and Background

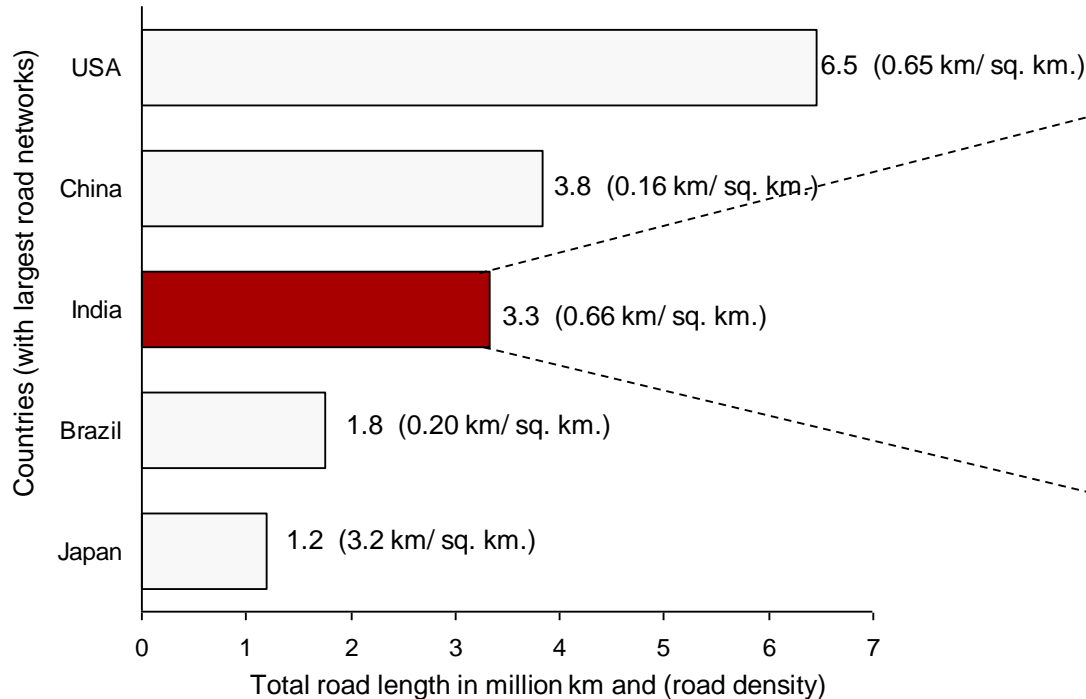
- This analysis is for road reflective products
- The analysis does not cover reflective linings on the vehicles
- Market sizing has been done for primary manufacturers (e.g. 3M) for reflective surfaces, this does not include the cost of fabrication and end product cost
- Market size has been calculated by adding the revenues of leading manufacturers
- Revenue of individual companies has been collected through primary research on key business leaders in respective companies
- Reflective lining of vehicles is considered to be highly unorganized with 70% to 80% of the market being commanded by Chinese imports. 3M and Avery Dennison command the organized market through their tie-ups with OEMs

Traffic Safety Market Definition

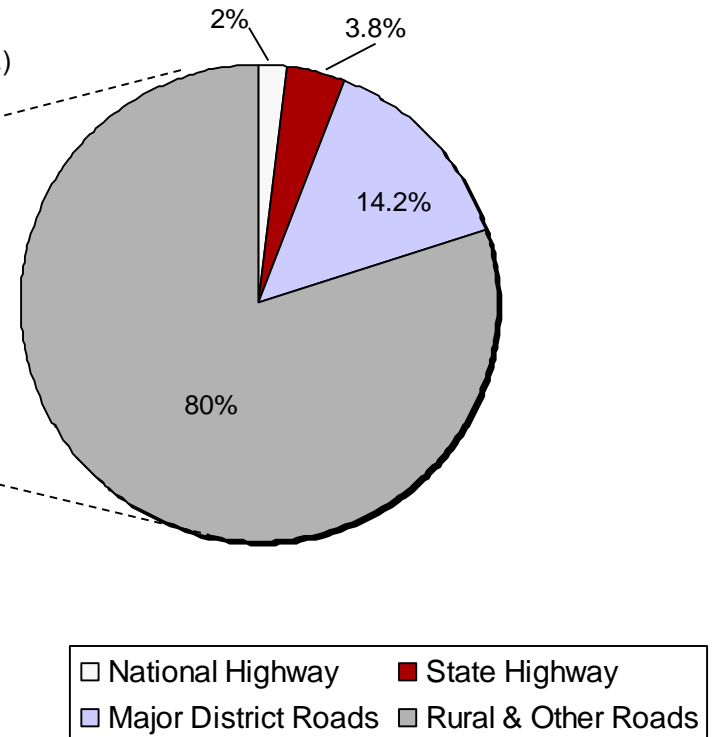


Indian Road Network Highlights

Countries with largest road networks (2009)



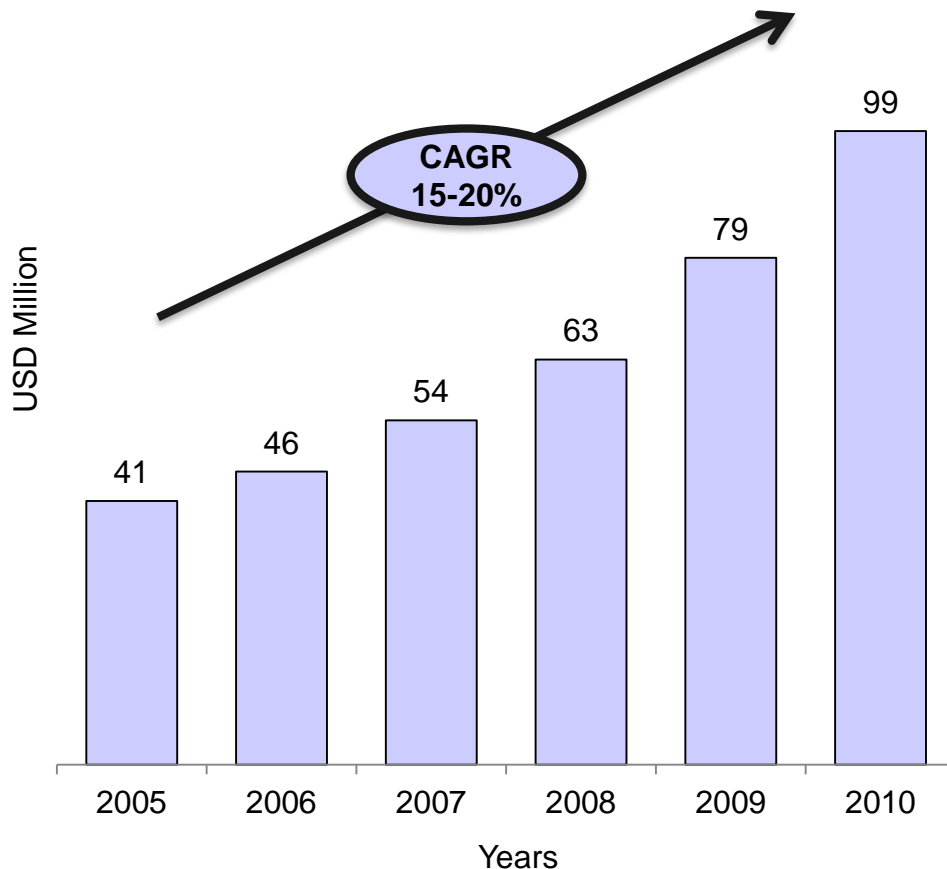
Indian Roads Classification (2009)



- In 2010-11 Indian union budget, 38 billion USD, 46% of total planned expenditure, was allocated for Infrastructure Development
- Indian Government plans to increase Highway length by approximately 3,500 km every year.

Indian Traffic Safety Market is pegged at USD 99 Million

Indian Traffic Safety Market Size¹
(2005-2010)

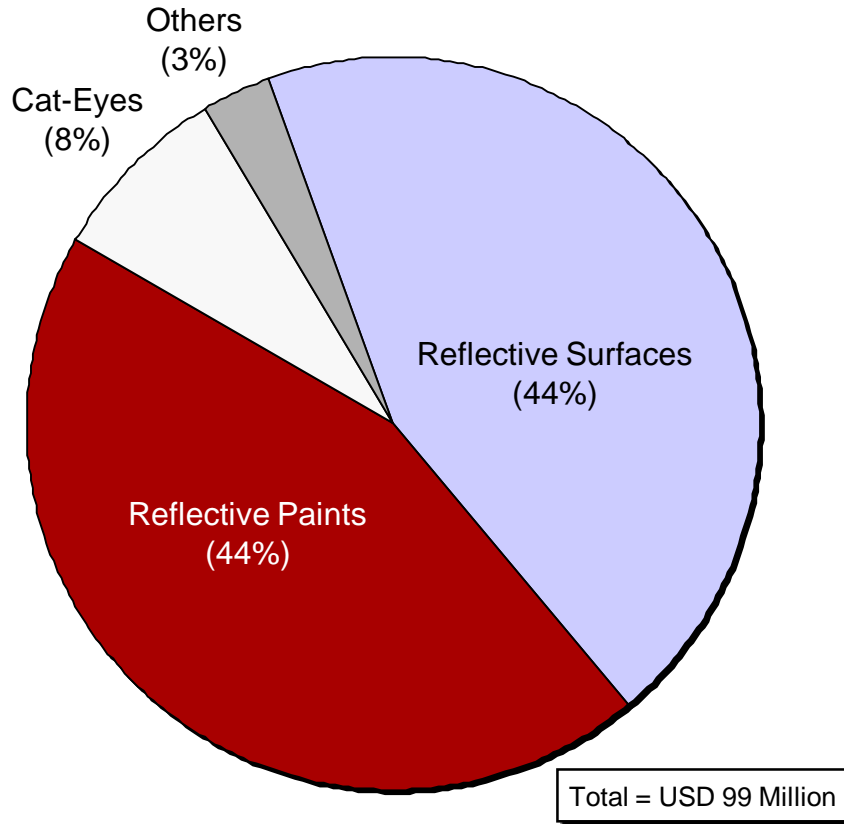


Discussion

- Indian Traffic safety market is expected to grow with a 20-25% growth rate in coming years
- 3M expects the market to be close to USD 170 Million in next 5 years
- Indian government is targeting creating of 10 KM of new road every day – a boost to traffic safety market
- Ongoing modernization drive and replacement of old products is another strong driver

Reflective Surfaces and Paints account for the major pie of Traffic safety market

Indian Traffic Safety Market by Products
(2010)

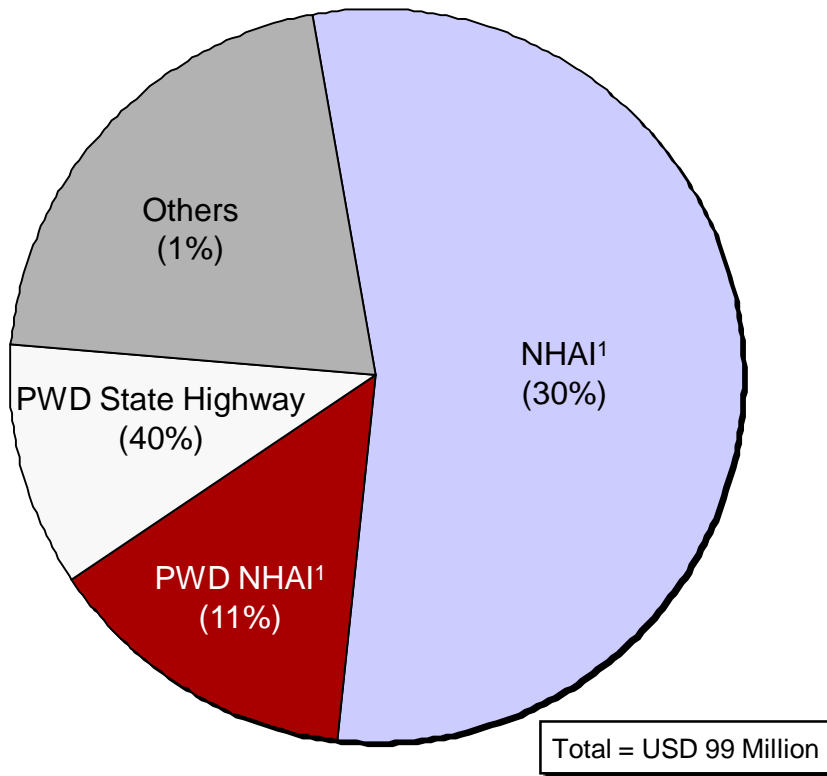


Discussion

- Usual lifespan of reflective surfaces is around 7 to 9 years
- Paints get changes in 9 months to 15 months period
- While the reflective surfaces market is consolidated and organized (3M and Avery Dennison being two leading players) Reflective paint market is highly unorganized and corruption ridden

NHAI¹ is the single biggest user of traffic Safety market

Indian Traffic Safety Market by Usage
(2010)



Discussion

- Indian government spends USD 2200 on every KM of road on traffic safety products (only on Reflective sheeting)
- On state highways USD 1100/KM is spend on reflective sheeting
- Sheeting have a life of 7 to 9 years.
- Paints need to be replaced in 9 to 15 months.
- City roads use non reflective paints and minimal usage of reflective except in large cities
- Village and small city roads are virtually devoid of any sort of traffic safety products

Note:
1: NHAI: National Highway Authority of India, PWD: Public Works Department,
Source RedSeer Analysis

Contractors charge premium on the materials bought from manufacturers

Product	Cost of Reflector as % of Final Product
Road Studs	5%-10%
Reflective Work Wear	10%-20%
Cones & Delineators	7% - 10%
Reflective Signage	20%- 30%
Barricades & other Accessories	5%-10%

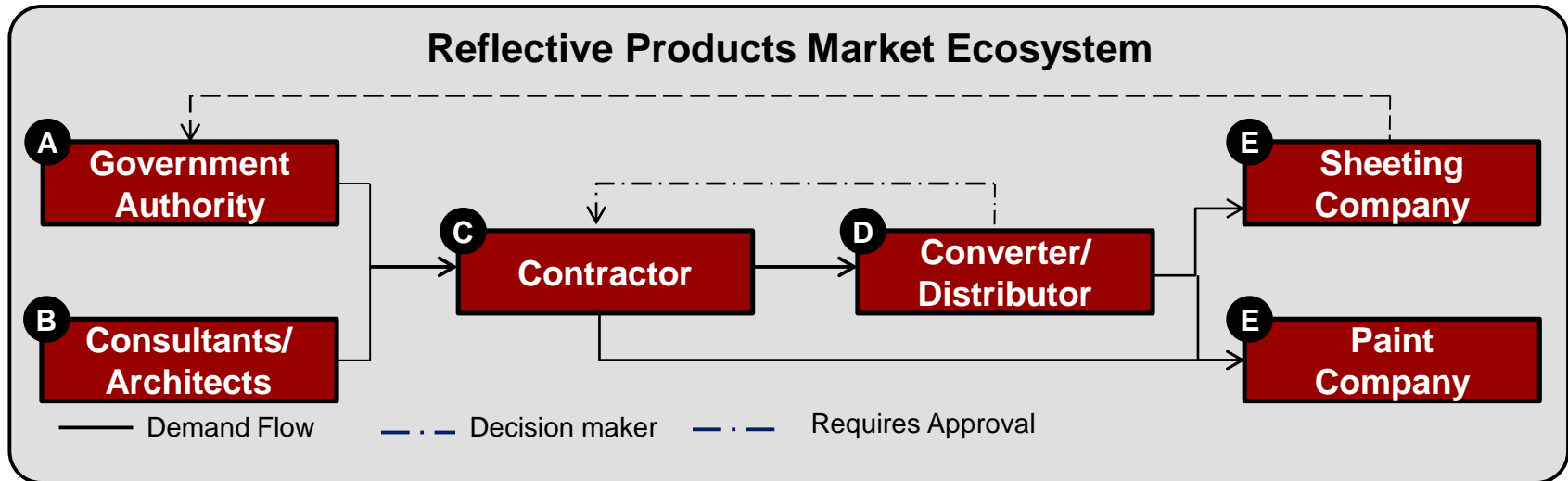
Discussion

- Converter market is highly fragmented
- 3M and Avery Dennison have certified converters as their channel partners that use the retro-reflective products to produce road safety finished products
- 3M and Avery Dennison work alongside channel partners to provide complete comprehensive solution
- Majority of other contractors in India operate under unorganized sector mostly ranging in size from 1 – 5 Cr per annum of revenue.

Key Drivers for traffic safety products in India

- **Growth of Private Sector:** 90% of the NHAI projects are executed by private contractors. Increased awareness among the project directors has led to increased demand of quality reflective products
- **Long Life of Products:** Due to proven long life of high quality reflective products, companies have been able to ask premium from government. Creating a cost effective solution in traffic safety product category
- **Technological Advances:** Recent technological advances have helped resolving some of the key pain areas in Indian context
- **Increasing Spend on Infrastructure:** Union government has allocated 46% of total budget expense on Infrastructure. Roads account for a key portion of this budget, amounting to ~10 KM of new roads every day

Key stakeholders and influencers



Government Authority

- Responsible for development and maintenance of roads eg. NHAI¹, BRO², PWD³.
- Provides specifications for the products. It can also specify which company's materials should be used.
- Consultants may or may not be involved in the project

Contractor

- Responsible for procurement of product
- The product can be procured on project, regional or national level based on contractor size and requirements
- Key decision maker in deciding the vendor. Can also decide the company if it is not specified in the tender

Converter/Distributor

- Converter produces Signs, Cat's eye, delineators and other reflective products using reflective sheets from the company.
- Needs to be registered with contractor as a vendor to be eligible for bidding for a project

Manufacturing Company

- Manufactures the product and supplies to the distributor
- Sheeting is procured through converter while paint can be procured through manufacturer or distributor depending on project size

Notes:

1. Indian Roads Congress
2. Special Publication
3. Ministry of Road Transport & Highways

Key Specification Codes for Reflective Products

Product type	Codes	Description
Road Signage	IRC ¹ :2-1968	Route Marker Signs for National Highways
	IRC:31-1969	Route Marker Signs for State Routes
	IRC:67-2001	Code of Practice for Road Signs
	IRC:30-1968	Standard Letters and Numerals of Different Heights for Use on Highway Signs
Road Delineators	IRC:79-1981	Recommended Practice for Road Delineators
Road Markings (Paints)	IRC:35-1997	Code of Practice for Road Markings (With Paints)
Construction and Hazard safety Products	IRC:SP ² :55-2001	Guidelines for Safety in Construction Zones

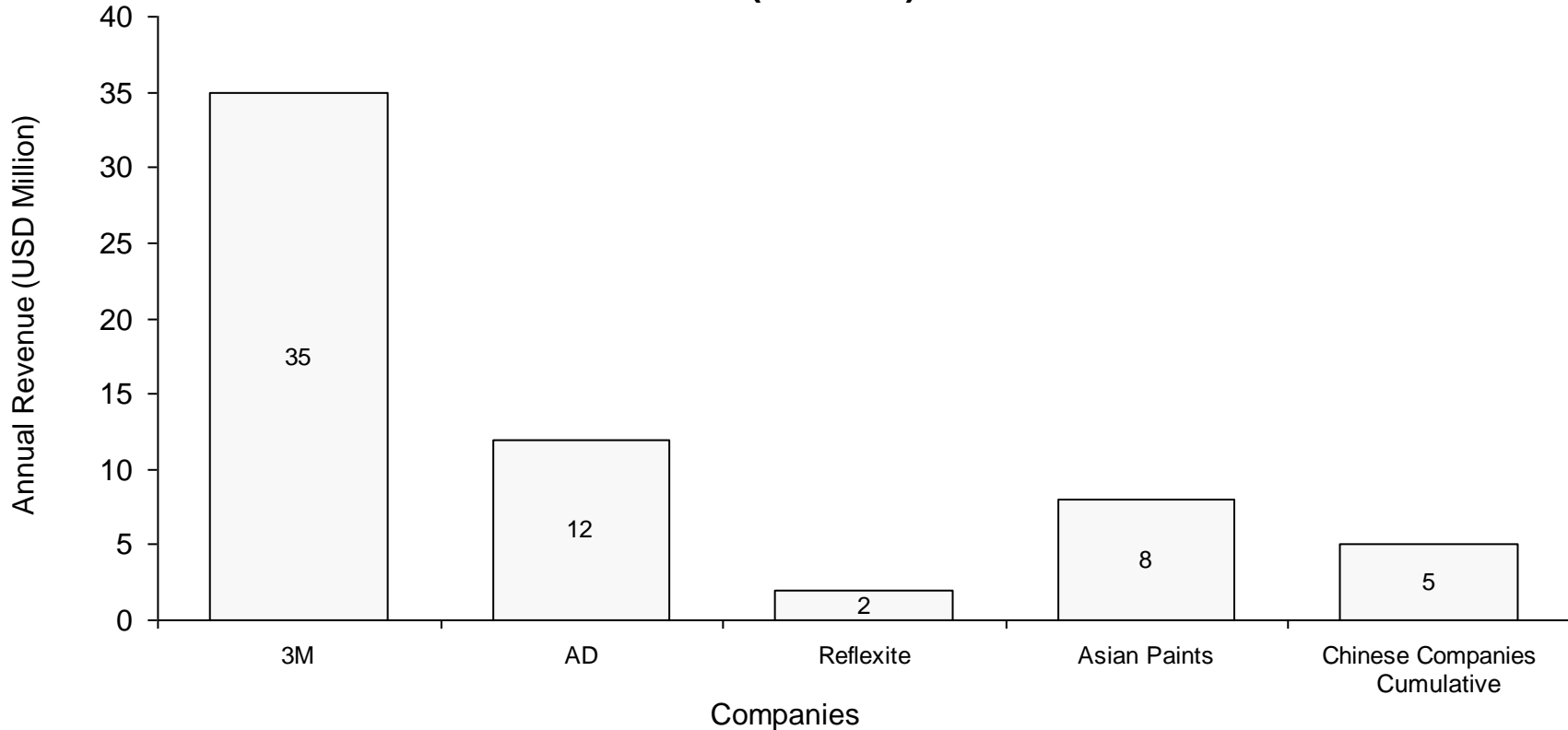
Publication Type	Codes	Description
General recommendations for safety	IRC:SP:27-1984	Report Containing Recommendations of IRC Regional Workshops on Highway Safety
	MoRT&H ³ publication	Manual for Safety in Road Design

Notes:

1. Indian Roads Congress
2. Special Publication
3. Ministry of Road Transport & Highways

Key Competitors in Indian Reflective Products Market

Traffic Safety (Reflective Products) Revenue of Major Players in India (2009-10)



3M India Pvt. Ltd.

(Traffic Safety Systems)

USP

- Largest player (~70% market share) in Road Signage segment in India followed by Avery Dennison & other minor players
- Operates mainly in Partnerships with Authorised converter for smaller projects in India and directly in large scale projects
- Marketing strategy to educate government authorities stakeholders on technological benefits and latest product trends to create a Brand recall and create new project opportunity

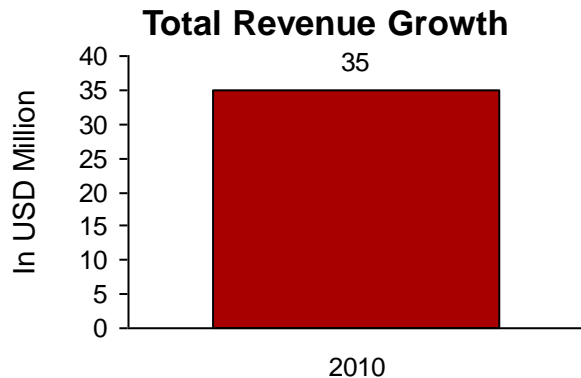
Background and Business Description

- Establishment - 1902
- Locations - Maplewood, MN , India HO: Bangalore, Karnataka
- Employee - 76,000 (Globally)
- Areas Served - Pan India
- Key Customers - NHAI, PWD, BRO, Automotive companies
- Key Competitors - Avery Dennison

Distribution and Sourcing

- Company -> Contractors -> Project tender -> Contractor
- 100% product being imported from outside of India
- Setting up facilities in India (Himachal)

Financial Performance



Portfolio

- Pavement Marking (Studs, Tapes)
- Prismatic Sheeting
- Diamond Grade Reflective sheeting
- Fluorescent Reflective sheeting
- Construction Work Zone (Drum Sheeting, Sign Sheeting)
- Vehicle Conspicuity Marking

Avery Dennison (India) Pvt. Ltd.

(Reflective Products)

USP

- Majorly into traffic and work zone, Safety apparel and fleet vehicle applications.
- Focuses marketing activity on vehicle application segment(fast process and less stringent specifications)
- Authorised converter programme to boost graphic industry penetration in India.
- Works alongside contractors in delivering final product to the end customer

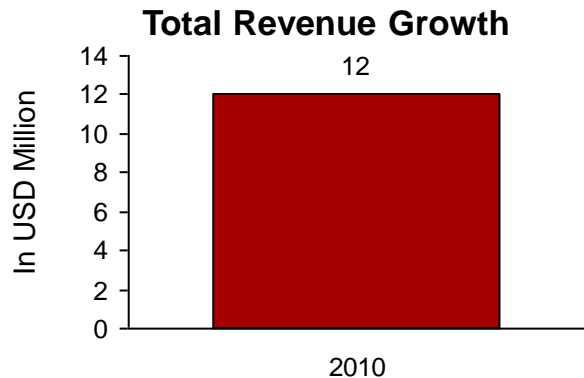
Background and Business Description

- Establishment - 1935
- Locations - HO: Los Angeles ,CA India Office: Gurgaon, NCR
- Employee - 36,000 (Globally)
- Areas Served - Pan India
- Key Customers - Automotive Companies
- Key Competitors - 3M, Chinese Products,

Distribution and Sourcing

- Company -> Contractors -> project tender -> Contractor
- 100% product being imported from outside of India

Financial Performance



Portfolio

- Microprismatic Sheeting
- Glass-bead Sheeting
- Construction Work Zone Films
- Fleet and Commercial Graphic Films
- Flexible films (Safety Apparels)
- Vehicle Conspicuity Tapes
- Security Films, License Plate

Reflexite India Pvt. Ltd.

USP

- Mainly into Vehicle conspicuity Tapes and reflective Work wear garments
- 3rd Major Player in vehicle conspicuity in India

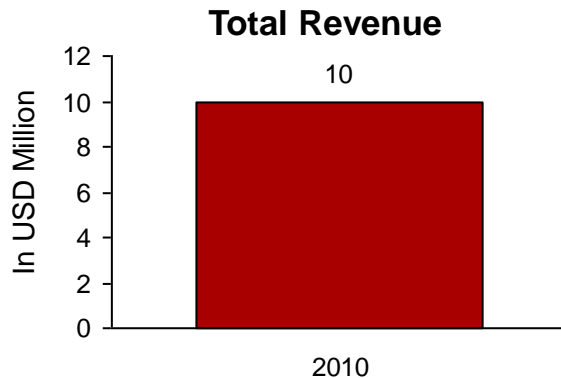
Background and Business Description

- Establishment - 1947
- Locations - HO: Mumbai, Maharashtra
- Employee -
- Areas Served - Pan India
- Key Customers - Automotive, Construction companies
- Key Competitors - 3M, Chinese Products,

Distribution and Sourcing

- Company -> Contractors -> project tender -> Contractor
- 100% product being imported from outside of India

Financial Performance



Following figure is the total revenue of the company which includes its 60% business in vehicle conspicuity tapes And work wear garment segment

Portfolio

- Vehicle Conspicuity Tapes
- Microprismatic Sheeting
- Work wear Garments
- Security Films, License Plate
- Marine Safety sheeting

Asian Paints Pvt. Ltd.

(Thermoplastic Paints)

USP

- Leading player in Indian industrial paint markets
- Strong presence, brand and price sensitivity are key USPs for Asian Paints

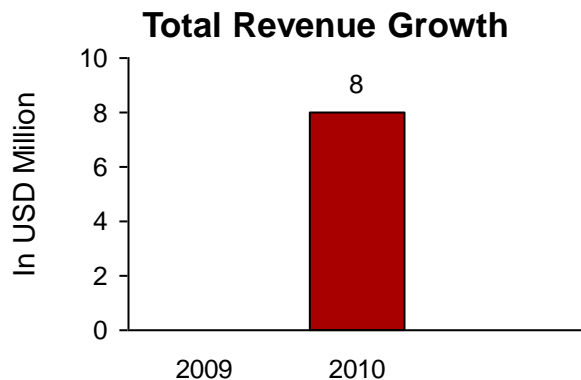
Background and Business Description

- Establishment - 1942
- Locations - HQ: Mumbai India
- Employee - 4380
- Areas Served - Pan India
- Key Customers - NHAI, PWD
- Key Competitors - Berger Paints

Distribution and Sourcing

- Company -> Contractors -> project tender -> Contractor
- Products are made at Indian facilities

Financial Performance



Portfolio

- Retroreflective thermoplastic material
- 100% acrylic retro-reflective water borne paints
- Conventional water / solvent based road marking paints

Thank You!

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getting the full presentation