Workshop C:

Anti-Counterfeiting Master Class:
Managing and Budgeting for Anti-Counterfeiting Action

Anti-Counterfeiting & Brand Protection Strategies
Overview

- Define the Problems
- Putting together a plan of attack
- Balancing the Budget
- Technology available – Pros & Cons
Some Interesting Money Facts

- In a 2004 report, the US FBI estimates that US Companies lose between $200 billion and $250 billion per year.\(^1\)
- The estimated domestic value of all counterfeit goods seized by U.S. Customs in 2004 was only $139 Million.\(^{11}\)
- The estimated annual sales in counterfeit products, worldwide, is US$600 Billion.\(^{11}\)
- The World Health Organization (WHO) has estimated that counterfeit drugs account for 10% of all pharmaceuticals worldwide. In some developing countries, WHO estimates the figure to be as high as 60%.\(^2\)
- In 2004, NYC investigators seized more than US$700,000 worth of counterfeit auto parts in one sting operation. The parts came from the middle east and China and included ignition coils, sway bars, and brake pads.\(^3\)
More Interesting Facts

Automotive Industry
- Daimler lost 30% of market in China/Taiwan/Korea to fakes
- Yamaha licensed 5 China plants but 50 factories were found to be making their parts
- General Motors has seven full time staff members dedicated to finding fakes

Fashion Industry
- In December of 2004, French Customs seized 10,000 m² of fake Louis Vuitton monogram canvas, enough to make 28,000 wallets or 18,000 handbags
- In a single NY Chinatown raid over 550,000 fake watches were seized
- According to Cartier investigators, the average amount paid by Chinatown wholesalers to import a fake blank watch is $1.69

Aviation Industry
- The operational life of counterfeit bearing seal spacers removed from a United Airlines Plane were found to be 600 hours. The Genuine parts had an operational life of 20,000 hours – 33 times the counterfeit.
And even more facts. . .

A recent sampling of anti-malarial drugs bought in Southeast Asia showed 53% were FAKE.

The World Health Organization has estimated that a fifth of the one million annual deaths from malaria would be prevented if all medicines for it were genuine and taken properly.

A charity working in Myanmar bought 100,000 tablets and discovered that all were worthless.
The Obvious Problems...

- Counterfeiting
- Piracy
- Diversion
The not-so-obvious problems. . .

- Counterfeiting does not have a line item on most company’s balance sheets
- Funding your efforts
  - Your money spent on ACM will appear on the balance sheet only as an expenditure
  - The money you save the company will appear on the balance sheet as increased profits
  - Your efforts must connect the two in order to be justified
Do we agree there is a problem?
Managing the Effort

Anti-Counterfeiting & Brand Protection Strategies
You must get “buy-in” from every level.

- Board Level
- CEO Level
- Executive Level
- Management Level
Understand to Whom you are Selling

Maslow articulated the fact that everyone is motivated by five basic needs at different times in their lives.

The art of selling comes in understanding the current motivating needs that drive the people you are trying to sell.

[Diagram: Maslow's Hierarchy of Needs]

- **Physiological** (e.g. hunger)
- **Safety** (e.g. a harness)
- **Love** (e.g. affection - giving & receiving)
- **Esteem** (e.g. respect of others)
- **Self Actualisation** (e.g. self fulfilment)

*Maslow’s Hierarchy of Needs*
Some psychologists have added a further layer for Beliefs and Spirituality.
Understand to Whom you are Selling the program

Hierarchy of Corporate needs

- Share Value, Company Reputation, Growth
- Profitability, Employment, Share Value, Growth
- Controlling expenses, Employment
- Resources (time and manpower) to manage it
How Daimler Chrysler Did It*

Formed a brand protection team
- Size of team was kept small
- Team members came from several departments
  - Parts center
  - Intellectual property
  - Purchasing
  - License Projects
  - Legal Department
- Gave the Team effectiveness by defining BRAND PROTECTION as the CORE TASK for all Team Members

*Excerpts taken from Beate Lalk-Menzel’s talk at the Global Brand Protection Summit 2006
Implement Chain of Custody for ACMs

Chain of Custody form derived from the format used in Law Enforcement for evidence management.

Forms don’t work without procedure and policy!
Tasks to include in your plan

- Review & Revise Your Anti-Counterfeit Measures (ACMs), Strategy and Tactics
- Chain of Custody for ACMs
- Manage production waste and damaged or unusable inventory.
- Educate the consumer
- Find the right “eyes and ears” for your product
- Collaborate with local customs officials
- Prosecute to the fullest extent whenever possible.
Where to focus your efforts

- **Priority Foreign Country**
  - China

- **Priority Watch List**
  - Brazil
  - Canada
  - Costa Rica
  - Czech Republic
  - Paraguay
  - Russia
  - Vietnam

- **Watch List**
  - Belize
  - Malaysia
  - Mexico
  - The Philippines

- **Special Mention**
  - Peru
  - United Arab Emirates
Case Study - In our home town. . .

Thursday, March 15, 2007, Palm Beach Post

Woman ran a business for five years out of her garage selling counterfeit clothing, purses, watches and other jewelry. Five days a week, 11:00 a.m. to 4:00 p.m.

The sheriff’s office acting on an anonymous tip, started the investigation which lasted over 8 months.

They seized over 1.5 million dollars in counterfeit goods

The woman claims to have made approximately $500,000 over the course of her five years in business.

Investigators found between $40,000 and $50,000 in cash in the home.
Lessons from “In my home town”

- The Keystone of this apprehension was a factory authorized representative that verified the fact that these were fakes.
- The representative was a private investigator specializing in anti-counterfeiting who was on retainer from several companies.
- The local police knew “who to call.”
- Fast action was key to the apprehension.
The Balance Sheet
Strategy

Prevention 1 oz

Cure 1 POUND
How much money to spend on Anti-Counterfeiting Measures? (ACM)
How to Balance Our Strategy

Value of Product

Cost of ACM
Three areas of Costs Associated with ACMs

- Cost of ACM itself (creation, field distribution)
- Cost of Detection Method/Device
- Cost of Policing (time, training, manpower)
Considerations for Choosing your ACM

Total Costs of ACM

Practicality
- Speed of detection
- How easy is it to train the inspectors
  - Are the subtleties too subtle?
- How many permutations are possible given the method?

Layers of Security

Levels of Security (Inspector, Supervisor, Executive).

Is Track and Trace Advantageous?
Layers of Security

Tower of London
Layers of security - Examples

Serial Numbers

Security Thread

Watermark

Color Shift Ink

Microprint
Anti-Counterfeiting Measures (ACM)
[a.k.a. “your arsenal”]

Anti-Counterfeiting & Brand Protection Strategies
Three Categories of ACMs

**TYPE I (OVERT)**
- Obviously present
- Hard to get or difficult to reproduce
- Often integrated into packaging design and marketing strategies
- Includes items such as color shifting inks, holograms, thermochromic materials, etc.
- Used by 69% of CACP Surveyed

**TYPE II (COVERT)**
- Hidden technologies
- Require field devices to verify
- Include items such as invisible bar codes, lenticular, polarized hidden images, & invisible images, etc.
- Used by 82% of CACP Surveyed

**TYPE III (FORENSIC)**
- Hidden Technologies
- Require laboratory examination with specialized equipment
- Include items such as micro-taggants, nanotext, etc.
- Used by 36% of CACP Surveyed
## Overt Technologies for the arsenal

<table>
<thead>
<tr>
<th>Technology</th>
<th>Cost of ACM</th>
<th>Cost of Detection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holograms</td>
<td>Cents/unit</td>
<td>None</td>
</tr>
<tr>
<td>Color shift Ink</td>
<td>Fractions of a cent/unit</td>
<td>None</td>
</tr>
<tr>
<td>Thermochromics</td>
<td>Fractions of a cent/unit</td>
<td>None</td>
</tr>
<tr>
<td>Intaglio Print</td>
<td>Fractions of a cent/unit</td>
<td>None</td>
</tr>
</tbody>
</table>
# Covert technologies for the Arsenal

<table>
<thead>
<tr>
<th>Technology</th>
<th>Cost of ACM</th>
<th>Cost of Detection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invisible Inks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- UV-Vis</td>
<td>Fractions of cent/unit</td>
<td>&lt;$100/inspector</td>
</tr>
<tr>
<td>- IR-Vis</td>
<td>Cent/unit</td>
<td>&lt;$300/inspector</td>
</tr>
<tr>
<td>- Polarized</td>
<td>Cents/unit</td>
<td>&lt;$1/inspector</td>
</tr>
<tr>
<td>RFID</td>
<td>Dollars/unit</td>
<td>Few hundred$</td>
</tr>
<tr>
<td><strong>Scrambled Indicia</strong></td>
<td><strong>Fractions cent/unit</strong></td>
<td><strong>Cents to hundreds of dollars</strong></td>
</tr>
<tr>
<td>Micro-print</td>
<td>Fractions cent/unit</td>
<td>$15/inspector</td>
</tr>
<tr>
<td>Field Readable Taggants</td>
<td>Cents/unit</td>
<td>$15/$200+</td>
</tr>
</tbody>
</table>
### Forensic Technologies for Arsenal

<table>
<thead>
<tr>
<th>Technology</th>
<th>Cost of ACM</th>
<th>Cost of Detection</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNA Inks</td>
<td>Cents/unit</td>
<td>High Hundreds of dollars</td>
</tr>
<tr>
<td>Taggants</td>
<td>Cents/unit</td>
<td>Low Hundreds of dollars to upwards of $30K</td>
</tr>
</tbody>
</table>
# Arsenal Comparative Strengths & Weaknesses - Holograms

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye catching appearance can be utilized to enhance packaging</td>
<td>Can be copied using a production hologram as a new original</td>
</tr>
<tr>
<td>Relatively inexpensive</td>
<td>Most retailers and customers just look for the presence of a hologram – ANY hologram</td>
</tr>
</tbody>
</table>

No Detection method required

It’s presence is a quick go/no go
Arsenal Comparative Strengths & Weaknesses - Holograms

🌟 Holograms are being enhanced with additional security measures

Microscopic and “nano-text” are being examined with a US$15 field microscope.
Holograms are being enhanced with hidden images.

Laser pointer US$15

Hidden Message Revealed

Enhanced hologram with target zone lasing
Case Study – Butane Lighter

- Counterfeits noticed in the Brazilian market three years before any action was taken
- No action taken even when legal claims filed against the brand owners for fires and explosions from the fakes
- Finally a 30% loss in sales to counterfeits initiated action
- They banded together WITH THEIR COMPETITION and approached a GOVERNMENT AGENCY (INMETRO)
Case Study – Butane Lighter

Program that was designed is estimated to have cost $2 million to start and $1 million/year thereafter.

Program included
- Overt Security hologram with covert features
- Government Legislation

First year they realized a 28% increase in sales. The second year showed an additional 55% growth.

Program and security label now in their 5th year of use.
### Arsenal Comparative Strengths & Weaknesses – Color Shift (OVI)

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moderately priced</td>
<td>Non-Secure Color shift materials are ubiquitous making them easy to simulate</td>
</tr>
<tr>
<td>Can be printed as a spot color with the rest of your print job</td>
<td>There is a subtlety required in differentiating the color shift materials making authentication difficult</td>
</tr>
<tr>
<td>Easy detection – no device required</td>
<td></td>
</tr>
</tbody>
</table>
# Arsenal Comparative Strengths & Weaknesses - Thermochromes

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fairly inexpensive &amp; easily applied</td>
<td>Widely available so easy to obtain</td>
</tr>
<tr>
<td>Can be adjusted to multiple temperatures and colors so the multiple of permutations is great</td>
<td>To obtain authentication of subtle differences requires a lab</td>
</tr>
</tbody>
</table>

[Image of thermochromic materials]
### Arsenal Comparative Strengths & Weaknesses – Intaglio Printing

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dramatic and artistic in its presentation</td>
<td>Not suited to short runs due to cost of plates</td>
</tr>
<tr>
<td>As currency has traditionally been printed in this fashion, it automatically connotes “financial stability”</td>
<td>Can be simulated by less expensive means</td>
</tr>
<tr>
<td>Allows for microprint</td>
<td>The uninitiated cannot appreciate the subtlety of this printing vs other types of printing</td>
</tr>
</tbody>
</table>
Arsenal Comparative Strengths & Weaknesses – Invisible Inks
### Arsenal Comparative Strengths & Weaknesses – Invisible Inks

<table>
<thead>
<tr>
<th>Strengths</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Relatively inexpensive</td>
<td>UV-Vis inks are ubiquitous making them easy to counterfeit</td>
</tr>
<tr>
<td>Can be printed as a spot color with the rest of your print job</td>
<td>IR-Vis inks require expensive lasers to detect</td>
</tr>
<tr>
<td>Easy detection</td>
<td>Laser detect inks need target spots for inspectors to focus on due to the tight beam of the laser</td>
</tr>
<tr>
<td>Variety of wavelengths available keep the permutations high</td>
<td></td>
</tr>
</tbody>
</table>
Case Study - Contact Lens Maker

- Worldwide distribution
- Manufacturer was here-to-fore unaware of an issue
- Physician in the Middle East recognized something was wrong and alerted manufacturer
- New Invisible Printing Technology Introduced on all packages
- Total cost for ACM is US $150,000/year
- What would be the cost of a Liability Law Suit?
Arsenal Comparative Strengths & Weaknesses – Polarized Images
## Arsenal Comparative Strengths & Weaknesses – Polarized Images

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relatively inexpensive to add</td>
<td>May require an additional lamination step</td>
</tr>
<tr>
<td>Detection method is inexpensive</td>
<td>Must be applied on reflective backgrounds (foils, white substrate)</td>
</tr>
<tr>
<td>To date, has not been counterfeited</td>
<td></td>
</tr>
</tbody>
</table>
Case Study – Belarus Bus Pass
“We know there is a small problem but we are not sure it is worth addressing. We would be happy with a 6% increase in revenues”

– Belarusian Province
Ticket with OVERT Anti-Counterfeiting Measures

OVERT Security – Holographic Stripe
Ticket with Covert Anti-Counterfeiting Measures

Polarized lens reveals covert security
“We were extremely surprised to see an immediate 40% increase in revenues from the implementation of [ACM]. Obviously, our problem was larger than we realized.”

– Belarusian Province
**Arsenal Comparative Strengths & Weaknesses - RFID**

<table>
<thead>
<tr>
<th><strong>Strengths</strong></th>
<th><strong>Weaknesses</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Adds additional functionality in addition to anti-counterfeiting</td>
<td>Expensive per unit price</td>
</tr>
<tr>
<td>Allows reams of information to be stored (fingerprints, images, etc)</td>
<td>Information can be read by “snooping” devices</td>
</tr>
<tr>
<td>Contact-less scanning speeds transactions</td>
<td>Data can be “cloned”</td>
</tr>
</tbody>
</table>
# Arsenal Comparative Strengths & Weaknesses – Scrambled Indicia

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inexpensive</td>
<td>Slow detection process</td>
</tr>
<tr>
<td>New technologies are increasing its security (proprietary lenses, multiple images hidden, multi-levels in the same image)</td>
<td>Easy to reproduce if permutations are known</td>
</tr>
<tr>
<td>Can be applied by a variety of printing methods</td>
<td></td>
</tr>
<tr>
<td>Can we quickly changed</td>
<td></td>
</tr>
<tr>
<td>Strengths</td>
<td>Weaknesses</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>------------------------------------------------</td>
</tr>
<tr>
<td>Inexpensive</td>
<td>Can be reproduced very easily</td>
</tr>
<tr>
<td>Will not photocopy or scan well</td>
<td></td>
</tr>
<tr>
<td>Often goes un-noticed</td>
<td></td>
</tr>
</tbody>
</table>
### Arsenal Comparative Strengths & Weaknesses – Field Readable Taggants

<table>
<thead>
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</tr>
</thead>
<tbody>
<tr>
<td>Very hard to counterfeit</td>
<td>Slow detection methods using field microscope</td>
</tr>
<tr>
<td>Some can be machine read</td>
<td>“Chunky” state imposes application limitations</td>
</tr>
</tbody>
</table>
Case Study – Turkish Mass Transit

Istanbul Public Transportation Authority
I.E.T.T. is one of the world’s largest Mass Transit systems

They operate nearly 3000 buses in 900 square miles

They service 10 million passengers/month
Case Study - Turkish Mass Transit

- They suspected a loss of 15% revenue due to counterfeiting
- They implemented a machine readable invisible taggant on their tickets
- Post implementation bus ticket sales has risen from 5.5 million to 11 million
- With a ticket value of $0.5, this increase represents total added gains of $33 million per annum for I.E.T.T.
## Arsenal Comparative Strengths & Weaknesses – DNA Inks

<table>
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<th>Strengths</th>
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</thead>
<tbody>
<tr>
<td>Very hard to counterfeit</td>
<td>Slow and expensive production processes</td>
</tr>
<tr>
<td>Easy to apply</td>
<td>Slow and expensive detection processes requires lab</td>
</tr>
<tr>
<td>Strengths</td>
<td>Weaknesses</td>
</tr>
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Case Study – Russian Tax Stamps

A Russian Government was aware of a problem but did not know the extent of it.

They indicated that a 10% increase in revenues would be considered an overwhelming success.
Case Study – Russian Tax Stamps

🌟 They realized a 300% increase in revenues!!
References

1 International Chamber of Commerce Commercial Crimes Services, *A Brief Overview of Counterfeiting*, July 2004


4 Coalition Against Counterfeiting and Piracy Technology Task Force survey, July 2006

5 *Business Week*, July 2, 2005

6 BBC News, March 24, 2006

7 *Forbes.com/Reuters*, June 11, 2003


9 IACC.org resources, “Facts on Fakes”

10 IACC.org “Submission of the IACC to the US Trade Representative, Special 301 Recommendations”

11 IACC.org “Fakes by the Numbers”
Resources

- United States Chamber of Commerce [www.thetruecosts.org](http://www.thetruecosts.org)
- The International Anticounterfeiting Coalition [www.iacc.org](http://www.iacc.org)
- Business Action to Stop Counterfeiting and Piracy [www.bascap.com](http://www.bascap.com)