

Agua Caliente Park, Tucson, Arizona



Jim Jindrick

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Innovation Rules of Thumb

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Buenvenidos a Tucson!

- ...but it's DRY heat!!



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Tucson Attractions

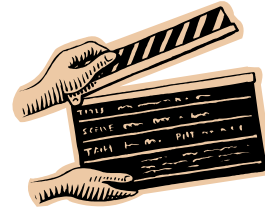


- Arizona-Sonora Desert Museum
- Biosphere 2
- Kitt Peak National Observatory
- Pima Air & Space Museum; Titan Missile Museum
- Sabino Canyon Recreation Area
- Saguaro National Park
- San Xavier del Bac Mission
- Tombstone (OK Corral, Wyatt Earp, Cochise, Geronimo)
- University of Arizona

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Tucson Movies!

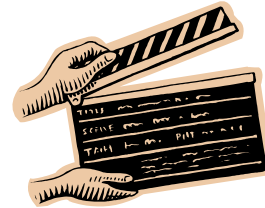


- **Tin Cup**
 - Kevin Costner
- **Gunfight at the OK Corral**
 - Burt Lancaster
 - Kirk Douglas
- **The Bells of St. Mary's**
 - Bing Crosby
 - Ingrid Bergman
- **The Gambler**
 - Kenny Rogers
- **The Last Outpost**
 - Ronald Reagan
- **Rio Bravo**
 - John Wayne
 - Dean Martin
- **Lilies of the Field**
 - Sidney Poitier
- **Hombre**
 - Paul Newman

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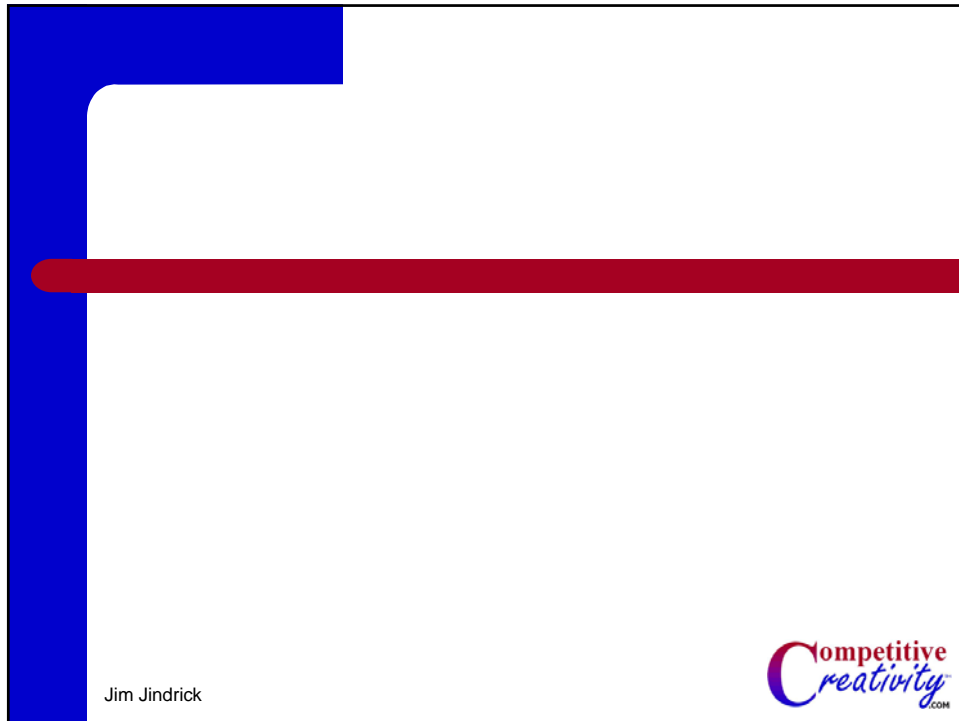
Tucson Movies!



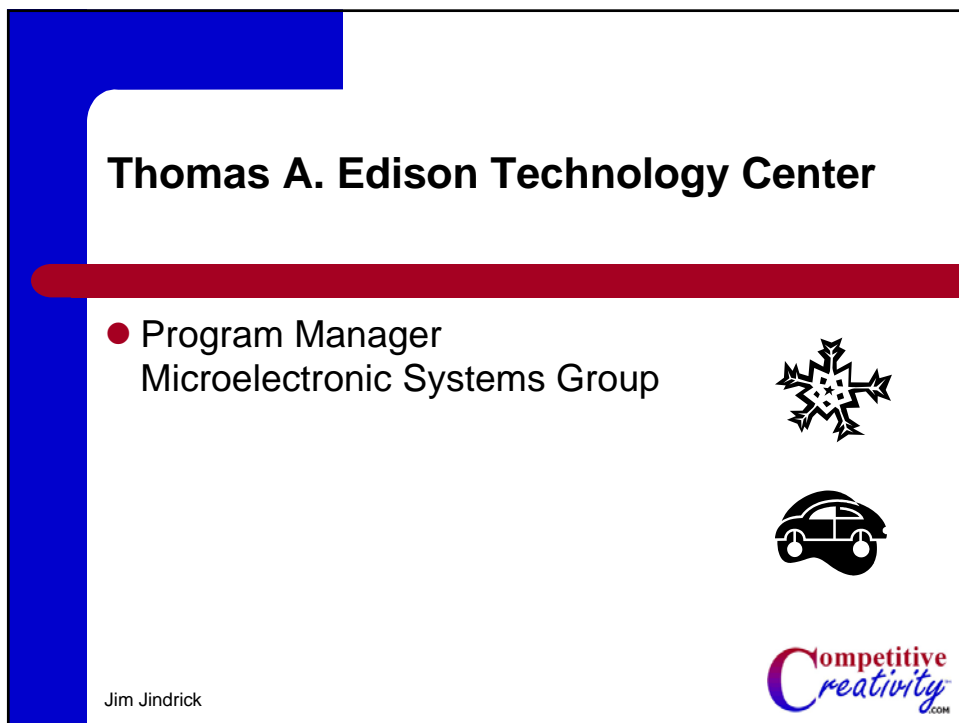
- **The Quick and the Dead**
 - Gene Hackman
 - Russell Crowe
 - Leonardo DiCaprio
 - Sharon Stone
- **Winged Migration**
- **Three Kings**
- **Wild, Wild West**
- **Revenge of the Nerds**
- **Can't Buy Me Love**
- **Tombstone**
 - Val Kilmer
 - Kurt Russell
- **The Three Amigos**
 - Chevy Chase
 - Steve Martin
 - Martin Short
- **The Cannonball Run**
- **Trial of Billy Jack**

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Thomas A. Edison Technology Center

- Program Manager
Microelectronic Systems Group



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Patents

- Electronic Watt-Hour Meter
- Microprocessor-based Recloser Control
- Microprocessor-based Tap-changing Voltage Regulator Control
- R-C Circuit!!!

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Control yourself.



Customers are understandably excited about our regulator control.

Our Control Replacement Assembly (CRA) regulator control works with every domestically manufactured voltage regulator out there, so it's the only one you'll ever need to stock, install, or train your personnel to operate. It's also the one with the features and functions you need for easy, reliable, trouble-free performance. The CRA equipped with our CL-SE control panel is the latest evolution in our continuing commitment to provide the best regulator-control technology—a commitment that dates back to 1952. And it's the only one backed by the most comprehensive service and support in the industry.

After all, there's only one company that makes both its own voltage regulators and regulator controls. The same company that is the largest producer of medium-voltage distribution equipment components and systems in the United States. Only one — and we're it. No wonder people are excited. Join in at www.cooperpower.com/regulatorcontrol or call 1-877-GPS-INFO.

COOPER Power Systems

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Cut and Paste Designs! SCAMPER...Combine!



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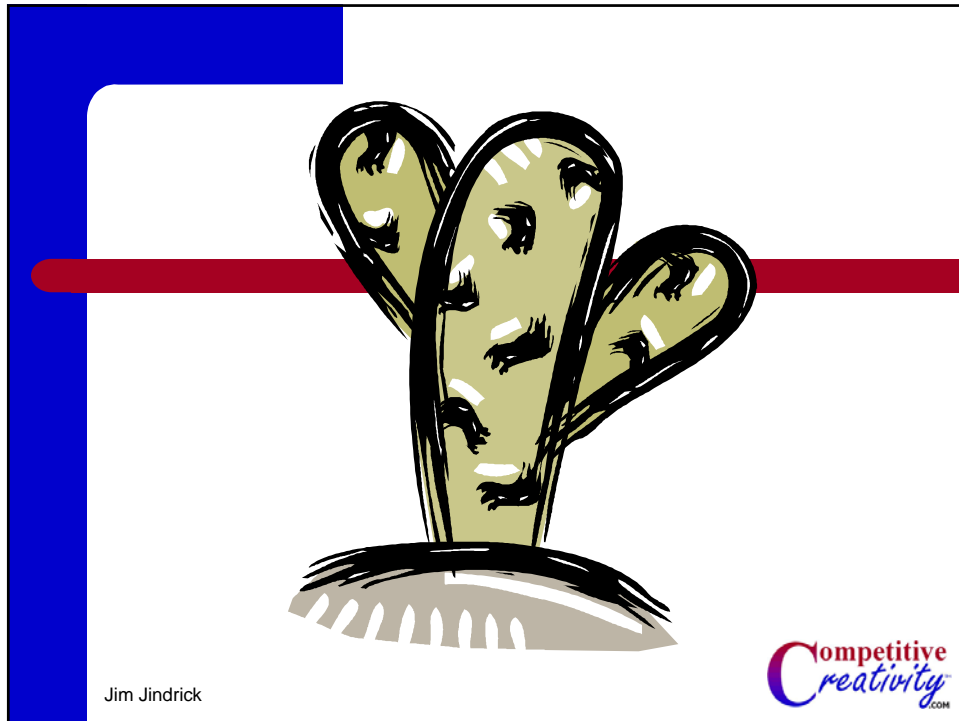
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Hey, boss...how about a raise!?



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Wanted: Engineer/Entrepreneur

- Wouldn't that be nice...
...with a Personal Computer?!
 - Energy Management Systems
 - Factory Product Test Systems
 - Laboratory Automation Systems

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First Artificial Heart Transplant as a Bridge to New Human Heart

- 1985: University of Arizona Medical Center
- “Hey! That’s our stuff!”



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T.I.

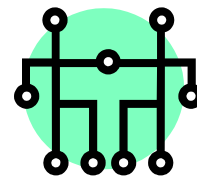
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- Some 200 University Programs
- U.S. News and World Report: #5 Public
- Entrepreneur magazine: #1 Public

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- Advanced E-mail Security Systems
- **Autonomous Service Vehicles**
- **Fiber Optic Hydrocarbon (Oil) Leak Detection System**
- E-commerce in a Box
- **Airborne Toxin Detection System**
- **Solar Silicon**
- Corneal Topography Systems
- ...14 other new ventures



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- **Entrepreneur:** a person who identifies opportunities, generates ideas, innovates, plans, organizes, operates, and mitigates the risk for a new venture
- **Intrapreneur:** a person who identifies opportunities, generates ideas, innovates, plans, organizes, operates, and mitigates the risk for a new venture within an established organization

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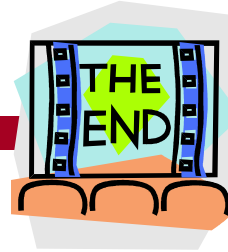


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Start with the End in Mind!

- Three Things Every Company **MUST DO** to Survive!



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Earn a Profit

- **Profit:** No profit, no business!
- **Earn:** It takes work!

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Earn a Profit

Solving Customer Problems

- **Customer:** Source of Revenue, Profit!
- **Customer Problems:** Opportunities!
- **Solutions:** Products, Services, Methods

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Earn a Profit

Solving Customer Problems Better than the Competition!

- **Competition:** Current Solutions, Alternatives, Substitutes, Replacements
- **Better:** How Customers Choose

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Business Success Rule of Thumb

**Earn a Profit
Solving Customer Problems
Better than the Competition**

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Earn a Profit
Solving Customer Problems
Better than the Competition

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Earn a Profit
Solving Customer Problems
Better than the Competition

- **BETTER?** INNOVATION!

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An Innovation is

Better

-
- **BETTER:** Improved, Superior
-

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An Innovation is Something Better

- **SOMETHING:** Product, Service, Method
- **BETTER:** Improved, Superior
-

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An Innovation is Something Better and New

- **SOMETHING:** Product, Service, Method
- **BETTER:** Improved, Superior
- **NEW:** Novel, Unique, Creative, Inventive

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Patents



An Innovation is Something Better and New

- **SOMETHING:** Product, Service, Method
- **BETTER:**
- **NEW:**

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An Innovation is Something Better and New

- **SOMETHING:** Product, Service, Method
- **BETTER:**
- **NEW: CREATIVITY**

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An Innovation is Something Better and New

- **SOMETHING:** Product, Service, Method
- **BETTER:**
- **NEW:** CREATIVITY...Imagination, Openness

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An Innovation is Something Better and New

- **SOMETHING:** Product, Service, Method
- **BETTER:** COMPETITIVE
- **NEW:** CREATIVITY

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An Innovation is Something Better and New

- **SOMETHING:** Product, Service, Method
- **BETTER:** COMPETITIVE...Internal, External
- **NEW:** CREATIVITY

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An Innovation is Something Better and New

- **SOMETHING:** Product, Service, Method
- **BETTER:** COMPETITIVE
- **NEW:** CREATIVITY

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Grandma's Rule of Thumb



Jim!

"Opportunity called me, faxed me,
e-mailed me, spammed me,
beeped me, paged me...
but I was expecting it to knock!"

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**The best way to have a good idea is...
to have lots of ideas to choose from!**

- INNOVATION starts with ideas!

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Innovation Tools

- Brainstorming
- Give it a SWOT
- SCAMPER

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BRAINSTORMING

- Team sport!
- No criticism allowed!
- Anything goes...wild, crazy, impractical, ingenious!
- All ideas encouraged!
- Piggyback, improve, combine with other ideas!
- Use SCAMPER to stimulate ideas!
- Record all idea...filter later!

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SWOT

- **S**trengths?
- **W**eaknesses?
- **O**pportunities?
- **T**hreats?

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SWOT

- **S**trengths? What do customers like?
- **W**eaknesses? What do customers dislike?
- **O**pportunities? What else could we do?
- **T**hreats? What might get in the way?

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Bob Eberle's Rule of Thumb

SCAMPER

- **S**ubstitute
- **C**ombine
- **A**dapt
- **M**odify, minify, magnify
- **P**ut to other uses
- **E**laborate, eliminate
- **R**earrange, reverse

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SCAMPER

- **S**ubstitute...software for hardware
- **C**ombine...personal computer
- **A**dapt...embedded PCs
- **M**odify, minify, magnify...microprocessors
- **P**ut to other uses...coffee "bars"
- **E**laborate, eliminate...handles on coffee cans
- **R**earrange, reverse...Internet commerce



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Earn a Profit
Solving Customer Problems
Better than the Competition

- New and Better Products!
- New and Better Services!
- New and Better Methods!

- New and Better VALUE

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$$\text{VALUE} = \text{BENEFITS} - \text{PRICE}$$

- **Good Value:** Benefits > Price
- **Bad Value:** Benefits < Price

- **Bargain:** Benefits >> Price!
- **Rip-Off:** Benefits << Price!

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$$\text{VALUE} = \text{BENEFITS} - \text{PRICE}$$

- **Objective Benefits:**
Features, Functions, Fit, Form, Performance
- **Subjective Benefits:**
Brand Recognition and Reputation, Color, Appearance, Taste, Smell, Sound, Convenience
- CUSTOMERS decide what is BETTER!

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Earn a Profit
Solving Customer **Problems**
Better than the Competition

- New and Better Problems!
- Problems that you can solve BETTER
- Expertise, Experience, Resources

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Earn a Profit
Solving **Customer** Problems
Better than the Competition

- New and Better CUSTOMERS!
- New Customers that have Problems you can Solve Better than the current alternatives!

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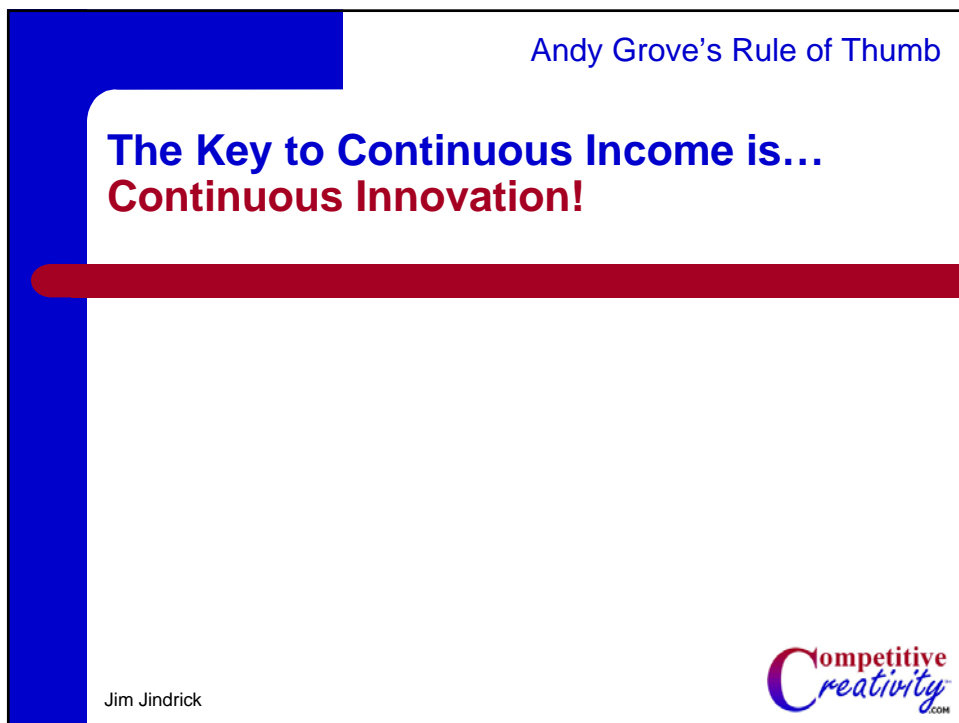
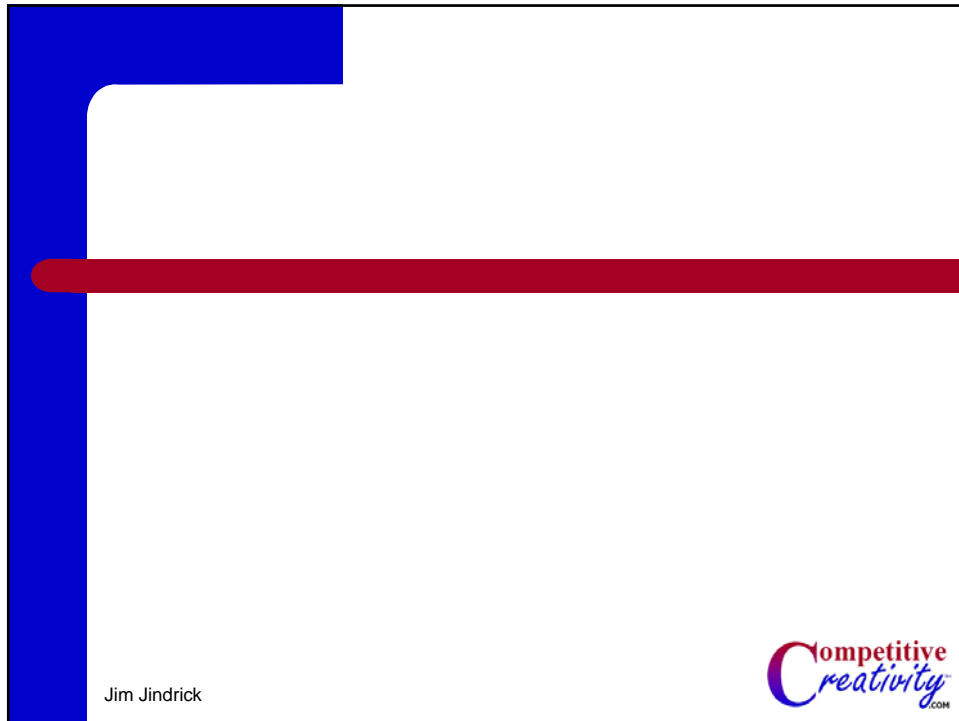


Earn a Profit
Solving Customer Problems
Better than the Competition

- New and Better Methods of Production
- Improve Efficiency and Effectiveness

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Innovation Rules of Thumb

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Managing Director

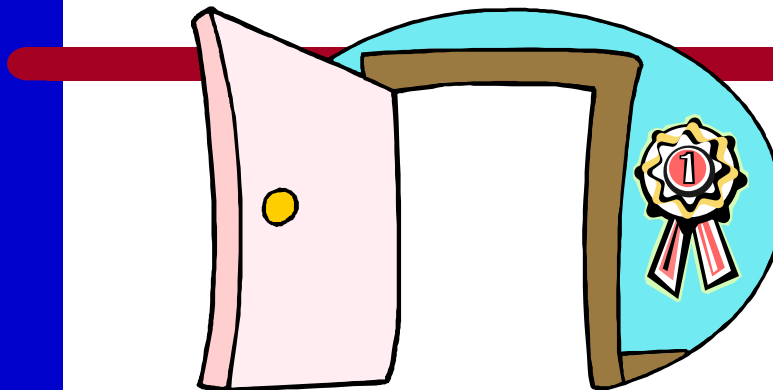
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DOOR PRIZE!



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What Do These Countries Have In Common?

- Australia
- Burma
- Cambodia
- Chile
- Costa Rica
- Cuba
- Czech Republic
- Dominican Republic
- France
- Iceland
- North Korea
- Laos
- Liberia
- Luxembourg
- Myanmar
- The Netherlands
- Norway
- Panama
- Puerto Rico
- Russia
- Samoa
- Serbia and Montenegro
- Slovakia
- Taiwan
- Thailand
- United Kingdom
- United States
- Yugoslavia

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Their Flags are Red, White, and Blue!



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