Sources of Innovation
- Users

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Yonsei University Business School
Diffusion – An important part of the technological innovation

Source: Rogers (Diffusion of Innovation)
User Innovation - Another Important Factor

Adopter categorization on the basis of innovativeness

Innovators

Early Adopters

Early Majority

Late Majority

Laggards

Lead Users

Avg. time of adoption

Source: Rogers (Diffusion of Innovation)
Traditional, Manufacturer-Centered Innovation Paradigm
Manufacturers identify user needs, develop products at private expense, And profit by protecting and selling what they have developed.

User-Centered (Democratized) Innovation Paradigm
Lead Users innovate to solve their own needs at private expense - and then freely reveal their innovations.
What is meant by “Innovation is becoming democratized?”

- Increasing numbers of users are able to **develop innovations for themselves** at a steadily more professional level.

Why?

- Improvements in design tools via computing (like simulation)
- Improvements in communication (like the Internet)
- All being provided at lower costs

Source: Eric von Hippel’s class – “How to create breakthrough products and services”
Users at the leading edge are termed “lead users:” They (1) lead the market and (2) have a strong need

John Heysham Gibbon – physician, USER - inventor of the heart-lung machine (Cardiopulmonary bypass (CPB)).

• “The death of a young patient in 1931 motivated Dr. Gibbon to develop the first heart-lung machine, enabling more effective heart surgery techniques.

• Gibbon was dissuaded by all with whom he broached the subject, but he continued his experiments.

• In 1935 he successfully used a prototype heart-lung bypass machine to keep a cat alive for 26 minutes.... In 1953 first used a heart-lung machine on a human patient...

• Why did a USER have to develop the first heart-lung machine?

At the start of something really new there is no “proven” market!

Source: Eric von Hippel’s class – “How to create breakthrough products and services”
Users tend to innovate at the leading edge of markets where demand is both small and uncertain.

Manufacturers find this pioneering arena NOT attractive – but later do adopt lead user innovations as a feedstock for their commercial product developments.
Essential Definitions

The “functional” source of innovation depends upon the functional relationship between innovator and innovation:

- An **INNOVATION** is anything new that is actually used (“enters the marketplace”) – whether major or minor.

- An innovation is a **USER innovation** when the developer expects to benefit by USING it;

- An innovation is a **MANUFACTURER innovation** when the developer expects to benefit by SELLING it.

Source: Eric von Hippel’s class – “How to create breakthrough products and services”
How we discovered that users develop many major new products

<table>
<thead>
<tr>
<th>Innovations Affecting</th>
<th>First Device</th>
<th>Major Improvement</th>
<th>Minor Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Chromatography</td>
<td>1</td>
<td>11</td>
<td>-</td>
</tr>
<tr>
<td>Nuclear Magnetic</td>
<td>1</td>
<td>14</td>
<td>-</td>
</tr>
<tr>
<td>Resonance Spectrometry</td>
<td>1</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Ultraviolet Spectrophotometry</td>
<td>1</td>
<td>14</td>
<td>63</td>
</tr>
<tr>
<td>Transmission Electron Microscopy</td>
<td>1</td>
<td>14</td>
<td>63</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4</strong></td>
<td><strong>44</strong></td>
<td><strong>63</strong></td>
</tr>
</tbody>
</table>

Source: Eric von Hippel's class – “How to create breakthrough products and services”
User - Dominated Steps

1. Significant instrument improvement invented, built and used by:

2. User diffuses results "how to do it's info via publication, symposia, visits etc.

3. A few users (or a few dozen) built their own

4. Instrument company introduces commercial version

INVENTIVE USER

Other users ask instrument companies when a commercial version will be available

Invention, prototyping, first field use

Information diffusion

Pre-commercial replication and use

Commercial manufacture and sale

Source: Eric von Hippel's class – "How to create breakthrough products and services"
# First device used in field developed and built by:

<table>
<thead>
<tr>
<th>Innovations Affecting</th>
<th>% User</th>
<th>User</th>
<th>Mfg.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Chromatography</td>
<td>83%</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>Nuclear Magnetic Resonance Spectrometry</td>
<td>80%</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>Ultraviolet Spectrophotometry</td>
<td>100%</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Transmission Electron Microscopy</td>
<td>72%</td>
<td>44</td>
<td>17</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>77%</strong></td>
<td><strong>72</strong></td>
<td><strong>22</strong></td>
</tr>
</tbody>
</table>

Source: Eric von Hippel's class – “How to create breakthrough products and services”
User innovations don’t look like “products” to manufacturers

Example: First completely automated radioimmunoassay system

Radioimmunoassay is a very sensitive technique used to measure concentrations of antigens (for example, hormone levels in the blood) without the need to use a bioassay. (source: wikipedia)

Source: Eric von Hippel’s class – “How to create breakthrough products and services”
Paradigms in new product development

Past decades have seen different paradigms in new product development.

- Technology-driven paradigm
- Customer-orientation paradigm

Paradigm shift?

User-centered paradigm

Source: Franke 2007

Source: Eric von Hippel’s class – “How to create breakthrough products and services”
Consider Center-Pivot Irrigation – A major agriculture innovation

Source: Eric von Hippel’s class – “How to create breakthrough products and services”
The original user innovation by a farmer

CLOSE-UP of one of the mobile towers of the original center-pivot machine shows the parts of the system with greater clarity. Water taken under pressure from the supply line powers a piston, which ratchets the tower ahead by means of a mechanical device called a Trojan bar that engages lugs on both support wheels. The rate of advance is set by the flow of water into the piston at outermost tower.

Source: Eric von Hippel's class – “How to create breakthrough products and services”
The product-engineered commercial version

Source: Eric von Hippel's class – “How to create breakthrough products and services”
The World Wide Web
– A Lead User Innovation

“Berners-Lee did not set out to invent a contemporary cultural phenomenon; rather, he says, “it was something I needed in my work.” He wanted to simply to solve a problem that was hindering his efforts as a consulting software engineer at CERN.

Berners-Lee’s innovation was to apply hypertext to the growing reality of networked computers. He expanded the idea he had developed at CERN and made it available on the Internet in the summer of 1991.

Technology Review, July 1996, p.34

Source: Eric von Hippel’s class – “How to create breakthrough products and services”
# Examples of Important Consumer Product Innovations

<table>
<thead>
<tr>
<th>Category</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Products</td>
<td>Gatorade</td>
</tr>
<tr>
<td>Personal Care</td>
<td>Protein-base Shampoo</td>
</tr>
<tr>
<td></td>
<td>Feminine Hygiene</td>
</tr>
<tr>
<td>Sports Equipment</td>
<td>Mountain Bike</td>
</tr>
<tr>
<td></td>
<td>Mountain Climbing-Piton</td>
</tr>
<tr>
<td>Apparel</td>
<td>Sports Bra</td>
</tr>
<tr>
<td>Food</td>
<td>Chocolate Milk</td>
</tr>
<tr>
<td></td>
<td>Graham Cracker Crust</td>
</tr>
<tr>
<td>Office</td>
<td>White-out Liquid</td>
</tr>
<tr>
<td>Computer Application Software</td>
<td>Electronic Mail</td>
</tr>
<tr>
<td></td>
<td>Desk Top Publishing</td>
</tr>
</tbody>
</table>

Source: Eric von Hippel’s class – “How to create breakthrough products and services”
### Users aren’t always the innovators

<table>
<thead>
<tr>
<th>Innovations Samples:</th>
<th>User</th>
<th>Manufr</th>
<th>Suplr</th>
<th>Other</th>
<th>NA</th>
<th>Total (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scientific Instruments</td>
<td>77%</td>
<td>23%</td>
<td>-</td>
<td>-</td>
<td>17</td>
<td>111</td>
</tr>
<tr>
<td>Semicon &amp; PC Crd Process</td>
<td>67%</td>
<td>21%</td>
<td>12%</td>
<td>-</td>
<td>6</td>
<td>49</td>
</tr>
<tr>
<td>Pultrusion Process</td>
<td>90%</td>
<td>10%</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>10</td>
</tr>
<tr>
<td>Tractor Shovel Related</td>
<td>6%</td>
<td>94%</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>11</td>
</tr>
<tr>
<td>Engineering Plastics</td>
<td>10%</td>
<td>90%</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td>Plastics Additives</td>
<td>8%</td>
<td>92%</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>Industrial Gas-Using</td>
<td>42%</td>
<td>17%</td>
<td>33%</td>
<td>8%</td>
<td>-</td>
<td>12</td>
</tr>
<tr>
<td>Thermoplastic-Using</td>
<td>43%</td>
<td>14%</td>
<td>36%</td>
<td>7%</td>
<td>-</td>
<td>14</td>
</tr>
<tr>
<td>Wire Stripping Equip</td>
<td>25%</td>
<td>75%</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Connector Attaching Equip</td>
<td>4%</td>
<td>13%</td>
<td>83%</td>
<td>-</td>
<td>-</td>
<td>12</td>
</tr>
<tr>
<td>Sports Equipment</td>
<td>58%</td>
<td>27%</td>
<td>-</td>
<td>15%</td>
<td>-</td>
<td>48</td>
</tr>
</tbody>
</table>

Source: Eric von Hippel’s class – “How to create breakthrough products and services”
Two major factors influencing the sources of innovation

1. Relative ability to profit from an innovation
   - Firm with highest innovation-related profit expectations most likely to innovate.
     (“Necessity is the mother of invention.”)

2. “Sticky information” transfer costs
   - Firm with stickiest local information needed for innovation most likely to innovate.

Source: Eric von Hippel’s class – “How to create breakthrough products and services”
User and manufacturer innovations differ

Users tend to develop Novel Functional Capability innovations:

- The first sports-nutrition bar
- The first scientific instrument of a new type

Manufacturers tend to develop Dimension of Merit Improvements:

- A better-tasting sports-nutrition bar
- Improvements to an existing type of scientific instrument

Example – Study of Scientific Instrument Innovations

<table>
<thead>
<tr>
<th>Innovation Type</th>
<th>User-Developed</th>
<th>Manufacturer-Developed</th>
</tr>
</thead>
<tbody>
<tr>
<td>New functional capability</td>
<td>82%</td>
<td>87%</td>
</tr>
<tr>
<td>DOM improvements</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total innovation sample size: \( n = 64 \)

Source: Eric von Hippel’s class – “How to create breakthrough products and services”
Sticky information affects who develops what

Information is often very “sticky.”

Some reasons:

- Information needed by developers may be *tacit*
  - Can you *tell* your child how to ride a bike?

- A *lot* of information is often needed by developers
  - “You didn’t *tell* me you were going to use the product *that* way!”

Source: Eric von Hippel's class – “How to create breakthrough products and services”
To develop a product or service, information about needs and about solutions must be brought together at a single site.

- **Need** information is usually found at user sites.
- **Solution** information is usually found at manufacturer sites.

Source: Eric von Hippel’s class – “How to create breakthrough products and services”
Because of information is sticky, each user responds to local needs using local solution information

U.S. Troops Make Use of Water Gear
The New York Times
July, 2003

Many troops have custom backpacks that serve as personal water-carrying and drinking systems.

Camelbak’s patented "personal hydration system" was invented in 1988 by a Texas paramedic, Michael Edison. To prevent dehydration during a summer bike race, he fashioned a drinking system from surgical tubing and an IV bag that he sewed to his shirt.

Source: Eric von Hippel’s class – “How to create breakthrough products and services”
Lead users are...

Only “Lead User” innovations form the basis for new products and services of value to manufacturers.

“Lead Users” are users that:

1. Have needs that foreshadow general demand in the marketplace;

2. Expect to obtain high benefit from a solution to their needs. (Such users are more likely to innovate – “Necessity is the mother of invention!”)

Source: Eric von Hippel’s class – “How to create breakthrough products and services”
Lead users are *now* facing “emerging needs”.

Source: Eric von Hippel’s class – “How to create breakthrough products and services”
NOT all user innovations are LEAD user innovations – It is the MANUFACTURER’S job to figure out which ones are at the leading edge of an important market trend

Source: Eric von Hippel’s class – “How to create breakthrough products and services”
User Conversion of a Model T Ford into a snowmobile

Source: Eric von Hippel's class – “How to create breakthrough products and services”
User Conversion of a Model T Ford into a traveling chapel

Source: Eric von Hippel’s class – “How to create breakthrough products and services”
Breakthrough solutions are often found in “advanced analog” applications and markets

Source: Eric von Hippel’s class – “How to create breakthrough products and services”
## Assessment Results: Lead User vs. Non-Lead User Funded Ideas

<table>
<thead>
<tr>
<th></th>
<th>LU Ideas (n=5)</th>
<th>NON-LU Ideas (n=42)</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>“Newness” of Idea</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Novelty compared to competition</td>
<td>9.6</td>
<td>6.8</td>
<td>0.01</td>
</tr>
<tr>
<td>Newness of needs addressed</td>
<td>8.3</td>
<td>5.3</td>
<td>0.09</td>
</tr>
<tr>
<td><strong>Projected Profitability</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% market share in year 5</td>
<td>68%</td>
<td>33%</td>
<td>0.01</td>
</tr>
<tr>
<td>Estimated sales in year 5</td>
<td>$146m</td>
<td>18m</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Strategic Value</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strategic importance</td>
<td>9.6</td>
<td>7.3</td>
<td>0.08</td>
</tr>
<tr>
<td>Fit with Strategic plan</td>
<td>9.8</td>
<td>8.4</td>
<td>9.24</td>
</tr>
<tr>
<td><strong>Fit with Business</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intellectual property protection</td>
<td>7.1</td>
<td>6.7</td>
<td>0.80</td>
</tr>
<tr>
<td>Fit with mfr. Capabilities</td>
<td>7.8</td>
<td>6.7</td>
<td>0.92</td>
</tr>
<tr>
<td>Fit with distribution channels</td>
<td>8.8</td>
<td>8.0</td>
<td>0.61</td>
</tr>
</tbody>
</table>

Note: Items measured on 10 pt. Scale, 10=high, 1=low
Source: Eric von Hippel’s class – “How to create breakthrough products and services”
Essential Definitions

“Breakthrough:”

- Determines Future Business Growth and Margins
- Major Product line >20% of Division Sales

Incremental improvement:

- Valuable to existing business
- Extension to existing line

<table>
<thead>
<tr>
<th></th>
<th>Incremental</th>
<th>Breakthrough</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional 3M Method</td>
<td>41</td>
<td>1</td>
</tr>
<tr>
<td>LU Method</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>At 3M</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Eric von Hippel’s class – “How to create breakthrough products and services”
Lead User Method

• Phase 1: Laying the Foundation
  – Identify markets and the type of level of the innovation desired by the key stakeholders

• Phase 2: Determining the trends
  – Find the broad trend from the people who have a broad view of emerging technologies and leading-edge applications in the area

• Phase 3: Identifying Lead Users
  – A networking process to identify the lead users

• Phase 4: Developing the breakthroughs
  – Lead user workshop to develop product/service concepts and ideas

Source: Eric von Hippel’s class – “How to create breakthrough products and services”
Toolkits – the basic idea

The standard, “find a need and fill it” product development model

Solution Information ("What is possible?")

Need Information ("What do I want")

Customers

Supplier

The toolkits development model

Solution Information ("What is possible?")

Need Information ("What do I want")

Customers

Supplier

Toolkits make sense because collecting accurate Information about customers needs is costly

Source: Eric von Hippel’s class – “How to create breakthrough products and services"
Harnessing the Capability of Users
Harnessing the Capability of Users

New tees for **THURSDAY, OCTOBER 1**

- **HOT**: And Lewis
  - ON WOLVES by Dick Firestorm and
  - Rock Out by Simon Mason

- **$18 Reprint**: Let It Snow by Florence

- **$18 Classic**: Fandemonium by Russ Chali

New tees for **MONDAY, SEPTEMBER 28**

- **$18 Reprint**: The Gaming Revolution by Ryan Scott

- **$18 Classic**: The Gnome by Ben Shylanc

**HUH? THREADLESS?**
Threadless is a community-based tee shirt company with an ongoing, open call for design submissions.

**IF YOUR DESIGN IS CHOSEN FOR PRINT, GET PAID UP TO $2,500+ AND $500 PER REPRINT**

With a chance to win over $22,500 in our Annual Beastie awards!

**NEW TEES AND PRINTS EVERY MONDAY!**
Join the newsletter to stay in the loop!

Enter your email address... Join
Harnessing the Capability of Users

INNOCENTIVE

Suggest Problems and Ideas
Formulate into Challenges
Specify IP Treatments (if applicable)
Post Challenges to InnoCentive.com & Partners
Evaluate Solution Submissions
Award Solver(s) and Transfer IP
The “sticky information” story

To develop a product or service, information about needs and about solutions must be brought together at a single site.

- **Need** information is usually found at user sites.
- **Solution** information is usually found at manufacturer sites.

Source: Eric von Hippel’s class – “How to create breakthrough products and services”
But need and/or solution information can be very costly to transfer from site to site – it is often very “sticky.”

Why?

- Information needed by developers may be *tacit*
  - Can you *tell* your child how to ride a bike?

- A *lot* of information is often needed by developers
  - “You didn’t tell me you were going to use the product *that* way!”

Source: Eric von Hippel’s class – “How to create breakthrough products and services”
How should companies respond to sticky information?

- If need information is very sticky, and solution information is not, product design should be done at the user site;

- If solution information is very sticky, and need information is not, product design should be done at the manufacturer site (The traditional pattern).

Source: Eric von Hippel's class – “How to create breakthrough products and services”
Manufacturer-Based Design

Manufacturer design tasks
- Have solution information
- Acquire need info from user
- Design product

User design task
- Need Info Source

User-Based Design

Manufacturer design task
- Solution Info Source

User design tasks
- Have need information
- Acquire solution information
- Design product

Source: Eric von Hippel’s class – “How to create breakthrough products and services”
Why sticky information means manufacturers should transfer toolkits to users

Economics of sticky information tends to shift the locus of problem-solving to users. For custom design projects, manufacturer information is standard from project to project but user need differs.

Example:

Each ASIC design tends to require the same information from the ASIC manufacturer, but unique information from the ASIC user.

Source: Eric von Hippel’s class – “How to create breakthrough products and services”
How do you design a toolkit? There are two major tasks

A. Separate out development tasks that are custom “need-information-intensive” and assign those to users.

Impact on Product architecture can be major

– Custom cake vs custom pizza;
– “Full-custom” IC vs custom ASIC

Source: Eric von Hippel’s class – “How to create breakthrough products and services”
You might have to change the basic design of your product to enable toolkits your customers can easily use.

“Full-custom” IC Design vs “Gate Array IC Designs”

Source: Eric von Hippel’s class – “How to create breakthrough products and services”
(B) Toolkits for users contain:

Tools to carry out trial-and-error design:

1. That are “user-friendly”
2. That offer the right “solution space”
3. That offer libraries of pre-designed modules
4. That can translate from user-language to producer language without error

Source: Eric von Hippel’s class – “How to create breakthrough products and services”
Toolkits should help users to do the trial-and-error work of problem-solving in design

Source: HBR, 2002
Tools to enable user to carry out design by trial-and-error

Four steps in trial-and-error-process:

- **Design**: Design custom circuit
- **Build**: Create functioning prototype
- **Test**: Take prototype for a “test drive”
- **Analyze**: Compare expected and actual results. If needed, do trial-and-error cycle again (“Iterate”)

*Source: Eric von Hippel’s class – “How to create breakthrough products and services”*
Toolkits – the basic idea
How do you design a toolkit?
There are two major tasks

A. Separate out development tasks that are custom “need-information –intensive” and assign those to users. Impact on Product architecture can be major
- Custom cake vs custom pizza;
- “Full-custom” IC vs custom ASIC

B. Develop the tools users need to carry out the need-intensive tasks assigned to them.

Source: Eric von Hippel’s class – “How to create breakthrough products and services"
Toolkits for users contain:

Tools to carry out trial-and-error design:

1. That are “user-friendly”
2. That offer the right “solution space”
3. That offer libraries of pre-designed modules
4. That can translate from user-language to producer language without error

Source: Eric von Hippel’s class – “How to create breakthrough products and services”
Flavor Design Toolkit for Users

Source: Eric von Hippel’s class – “How to create breakthrough products and services”
Nestle Food Services Toolkit: Pre-components for Mexican Sauces

Reduced the time to develop and begin production of a customer-approved new sauce from 26 weeks to 3 weeks
Exercise: Planning a toolkit for your company

1. Identify a type of product your firm manufactures where user demand for customization is strong.

2. Think of design tools within your firm that could be used as the basis for a “toolkit for user innovation” for that product type.

3. How would you adapt the basic product type to separate out “need-intensive tasks” for user customization?

4. Describe what a “user-friendly” toolkit for user innovation might look like for this product type.
How to start developing a toolkit

• It’s OK to start with something rough as long as it offers sufficient value to entice user experimentation.

• You don’t need much insight to design and update toolkits – lead users will bump up against the edges of the solution space your toolkit offers and ask for more – or design toolkit improvements for themselves.

• Work with lead customers that really need your toolkit and so will be willing to work with you as you refine it.
There are many “product configurator” toolkits for users – why?

Toolkits provide value for customers beyond an easy access to customized solutions

Benefits of users to interact with toolkit are plentiful

• Increase in **product satisfaction** due to better fit
• Feeling of **uniqueness** of resulting customized product (in consumer goods case)
• Increase in **process satisfaction** due to higher perceived span of control, flow experience, pride of authorship, etc. (think on open source developers)

Getting more exactly what you want can be worth a lot to users

Mean willingness to pay for customized watch

<table>
<thead>
<tr>
<th>Description</th>
<th>Price</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bestselling watch designs (professional company designers)</td>
<td>21.5 €</td>
<td>+126%</td>
</tr>
<tr>
<td>Self-designed watch (toolkit) (user designer)</td>
<td>48.5 €</td>
<td>+90%</td>
</tr>
<tr>
<td>“Ideal” watch (perfect toolkit)</td>
<td>92.0 €</td>
<td></td>
</tr>
</tbody>
</table>


n = 165
Helping customers to “design their own” can actually ease manufacturers’ problems in high-variety consumer industries

Consider Adidas AG

• Adidas has up to 45K models / variations (SKUs) on the market at any one time across all countries served
• Average designer time for a shoe model - 2 hours*
• Average time from start of design until market introduction: 8-10 months
• Average shelf life for a shoe model - 90 days.

(Data Source: Piller 2004)

• How can Adidas possibly manage this “mass production” supply chain?
• Not easy - LOTS of mismatch between supply and demand, product development is “hit or miss”

* time of original creative work of industrial designer to draw sketch, mean of all models (including incremental modifications)

Adidas shoe fabrication is done by hand in Asia. Can be adapted to mass-customization - as mi Adidas shows

- Started in 2001 as pilot, business unit since March 2004
- Worldwide availability
- 30-50 per cent price premium
- Started with offline toolkit (store based), online re-order possible in some markets
- Own store in New York City from May 2005

Three design steps to “build your own”

01
mi fit
For a shoe completely individual to your individual length, width and fit preferences, we measure your foot precisely, using a state of the art process.

02
mi performance
A foot scan reveals everything about your pressure distribution. Your performance depends on what kind of foot you have. Get a technology solution.

03
mi design
You're the creative director. You choose the materials, the pattern and finally sign it off with your name.

Toolkits can be offline, too!
This is how the store-based toolkit looks alike:

The miAdidas website for repeat customers

**Dein Schuh**

**Predator Pulse**

Dieses einzigartige Paar Schuhe soll Deinen Anforderungen hinsichtlich Passform, Leistung und Design gerecht werden.

Deine Ordnungsnummer: 999999-1

<table>
<thead>
<tr>
<th>Linker Schuh</th>
<th>Rechter Schuh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Länge / mm: 272.4 - 275.6</td>
<td>Länge / mm: 285.1 - 273.3</td>
</tr>
<tr>
<td>Breite / mm: 101.1 - 105.6</td>
<td>Breite / mm: 104.6 - 109.1</td>
</tr>
</tbody>
</table>

**Geteilte Außensohle**

Die geteilte Außensohle reduziert das Gewicht und ist sehr stabil.

**Aussenlegende Fersenkappe**

Zwei-Materialien Komponenten verringern den Druck auf die Achilles-Sehne - weiches TPU unten für verbesserten Komfort - festes TPU oben für beste Stabilität

**Weiterentwickelt Predator - Technologie**

Die neu entwickelten Predator-Elemente sorgen für mehr Präzision, mehr Schusskraft und für mehr Effekt als bisher denkbar war.


Falls Deine Schuhe gerne nachbestellt möchten, wende Dich einfach an Deinen Händler!

Noch zu Fragen zu den einzelnen Produkten, wende Dich einfach an unseren Customer Service miadidas@adidas.de
Benefits for the company

- Value competition instead of price (new differentiation possibilities)
- Reduced planning risk, increased flexibility
- Reduction of inventory, fashion risk
- New dimensions of shopping experience
- Real customer relationship management
- Lead user information (life panel without panel effects)
- Higher market research efficiency

Major findings about Mi Adidas to date:

- Customers like the idea, are very willing to give feedback to refine their custom shoe designs
- Mass Customization provides plenty of customer information to the company: interacting with a few individual customers can facilitate better development for all (“mass”) customers
- Retailers do not cooperate in recruiting customers (Channel conflict)
- Important change process started ... but still much work to be done