

# *National Benefits from Global R&D*

Remarks by  
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***The Procter & Gamble Company***

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I am very pleased to be with you today. Procter & Gamble was one of the 10 founding members of IRI in 1938. We have long valued our association with this organization with its commitment to fostering the discovery research that underlies the technologies that create the world's best products, brands and services.

Procter & Gamble's commitment to consumers is captured in our Statement of Purpose, the first sentence of which reads: "We will provide products of superior quality and value that improve the lives of the world's consumers". While achieving this Purpose depends on many things, it depends above all on innovation and we know that innovation must be driven, above all, by the results of R&D research.

No one understands this better than the audience in this room. You represent companies that account for over 80% of the annual domestic industrial R&D investment of \$140 billion.

As we all know, taking advantage of and sustaining this investment requires that we have national policies that create an environment

that encourages breakthrough innovation.

In particular, it seems to me we need national policies and understanding that recognize the importance of a global R&D effort. And that's what I want to talk about with you today. I want to communicate how the effective globalization of corporate R&D effort benefits the United States and American consumers. My message has two parts.

1. The first is to establish that the globalization of R&D not only makes sense for U.S. companies; it makes sense for the United States as a country. That is because companies conducting their Research and Development on a worldwide basis develop better products, which drive leadership business results. As a result of that, the U. S. economy benefits with more jobs and more taxes, and American citizens benefit from their investment in companies that lead this economic growth.
2. The second part of my message is to urge that we emphasize these facts to Washington officials and

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the general public and, by doing so, help influence the creation of policies that support an environment favorable to continued investment in innovation.

### **The Shift to Global R&D**

I will start by discussing the importance of global innovation leadership.

In our businesses, innovation leadership, not just in the U.S. but globally, is vital to building market leadership and a strong economic position here in the United States. Why? There are two reasons.

First, there are major scale advantages that come from being global. We're able to purchase raw and packaging materials from the best and most capable global suppliers. This not only lowers costs but permits suppliers to invest in their own discovery research that can lead to stronger product innovation.

Probably even more importantly, global R&D capability gives us access to leading-edge scientific developments, technologies, and new ideas, wherever they exist. Our competitors scour the world for the best ideas. We must do the same; indeed we must be ahead of them. Otherwise, we will lose our leadership position, not only abroad, but also here in America.

This I think we'd all agree is not debatable.

### **The Need for Off-shore R&D**

The key issue then becomes -- how can our company...or yours...gain access to the best discovery research and technologies, and consumer ideas that the world has to offer? Well for one thing, at P&G, we've learned that we must have R&D facilities abroad as well as in the United States to maximize this access.

Today, our R&D infrastructure includes twenty-two significant laboratories in 12 countries...with 40% of our researchers located outside the United States. We draw on our total global technical organization working in concert to develop superior products. Each region owns important major programs for the world, and technologists work collaboratively across geographic boundaries and business lines.

About 2/3rds of our R&D spending remains in North America, including much of our most fundamental, discovery research. But the percentage of R&D spending overseas has grown substantially in the past decade.

We believe this global R&D infrastructure allows us to access the finest technical minds in the world. It gives us access to cutting edge university research no matter where it is taking place. Indeed, it immerses us in the leading global academic institutions and literally forces us to live with the best of our competitor's products everyday.

And, perhaps most important, it makes it absolutely essential that we be designing products for the most

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demanding consumers around the world. Differences in their habits, practices and needs drive us to raise the bar in product performance giving us more robust global product designs that work everywhere.

I'd note that the recent expansion of our R&D facilities has occurred in both high-wage countries and emerging markets. We are *not* trying to cut costs by creating new R&D jobs in lower-cost regions. Rather, we strategically locate our new technical facilities to gain access to key global technology centers and the most demanding consumers. Our biggest recent growth has come from a diverse mix of countries: China, Japan, India, Mexico, Britain, Germany and Italy.

### **Major Benefits to the United States**

We can defend the rationale behind our decision to globalize R&D. But are P&G's and other companies global R&D operations good for America?

The answer is a most emphatic "yes"!

There are four main benefits.

### **Better Products in the United States**

First, U.S. consumers benefit from global R&D, because it enhances our ability to develop better products and bring them to market faster. We learn from close contact with consumers and exposure to new technologies and products overseas. Sometimes our facilities serve an "intelligence or surveillance

function," spotting new developments and enabling us to bring them quickly to the United States.

At the same time, our overseas facilities develop important new ideas and technologies that we can use worldwide. In both cases, American customers benefit.

For P&G, laundry detergents provide an excellent case study of these benefits.

Synthetic detergents are the Company's largest business with worldwide sales of over \$8 billion. P&G has the leading global market share at about 25%. In the United States our share is 50%. The importance of a global approach to R&D to our success in this category goes back at least sixty years. The development of proprietary surfactants and polyphosphates which led to the introduction of Tide was the product of joint research and development done collaboratively with Henkel in Germany.

Years later, in 1987 Kao, in Japan, introduced what turned out to be a breakthrough detergent advance: the first effective compact detergent called Attack. And I can tell you "Attacked" was certainly how we felt. The extremely discriminating Japanese consumers changed their purchase habits overnight, rewarding Attack with clear market leadership, and lengthening Kao's lead over all competitors.

Having on-the-ground consumer sensing in Japan gave us a first-hand appreciation of Japanese consumers'

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enthusiasm toward this product. It was a great fit with smaller homes, and the lower product weight made transportation much easier. We sensed that compact detergents would have global appeal and quickly launched the development of better performing products for the higher temperature and more diverse washing conditions in the U.S. and Europe.

At about the same time, we were launching the first washer-activated, oxygen bleach products in the United States. They are much safer to use on a wide variety of fabrics and colors, and also as effective at stain removal as chlorine bleach. The expansion into Europe required a novel “heart of the wash” granulette delivery innovation jointly developed by U.S. and European engineers. Tide and Ariel with bleach became instant successes. And, our Newcastle lab in the UK is still the process center for this technology.

The third development - enzymes - is testimony to the visionary leadership of a few research managers, and the power of our global supplier network. The use of enzymes in detergents goes back to the 1960's. Enzymes are effective for difficult lipid, starch and protein stains, but their sensitivity to temperature and pH levels makes their effectiveness in a washing machine quite a challenge.

The emergence of new science in biotechnology in the late 1970's created the dream of bio-engineered enzymes, tailored for specific applications, and at lower usage levels. Our fledgling bio-tech group

linked up with key university researchers and suppliers in the U. S. and Denmark to develop a critical mass of competence.

This work led to the development of proprietary protease and cellulase enzymes more effective at stain removal...plus an entirely new benefit: retention of original fabric colors by removing cotton fuzz or pills.

This technology gives us detergents with the highest performance ever. My particular point here is that the technical work drew on our internal resources in laundry laboratories around the world, universities in several countries, and our global supplier network. The result: world-class performance that built significant market share; 40% fewer chemicals; and much less energy to produce.

We have many other product success stories like this. Japan was the original market for thin disposable diapers and pull-up training pants. By being in Japan, we spotted these ideas, improved the concept and execution, and brought them to America.

Another example of how global R&D has helped P&G develop better products for consumers is bisphosphonates, materials that have proven very valuable in treating metabolic bone diseases, including osteoporosis.

When we began work on metabolic bone disease in the 1960's, it was researchers in Britain and Switzerland who helped us lead the

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way. The first significant clinical studies on Paget's disease were done in the UK, and our further research that has established the efficacy of these materials for treating of bone disease has depended heavily on medical scientists from Europe.

Our newest product programs are also benefiting from our global R&D capability.

Swiffer is a good example. This is a revolutionary cleaning implement that removes dust using an electro-statically charged paper substrate. It demonstrates how our global consumer sensing and supply chain is benefiting U.S. consumers. Inspired by similar product concepts in Japan, we completely redesigned the product for the habits and demands of Western housekeeping. We drew on our global supply chain with components sourced and assembly done in the United States, China, Japan, and Holland. Here is some of our introductory advertising that shows the product's benefits. (Show Video)

Another product we've recently introduced is Flash, the first long-lasting liquid disinfectant based upon our peroxy bleach technology and natural disinfectants. The product idea and technology came from our Italian Research Center in Rome. We've benefited from a highly collaborative global program as you'll see in this video clip. (Show Video)

Net: the first benefit of global R&D is that it allows us to deliver better benefits to U.S. consumers.

### **More, Not Fewer, American Jobs**

The second benefit of global R&D to the United States is jobs. Yes, global

R&D means more, not fewer, American jobs.

Why? Two reasons:

1. First, maintaining U.S. marketplace leadership, means more domestic sales and domestic jobs. And the fact is if foreign competitors have greater access to global product developments, and are faster at introducing those innovations in the U.S., our domestic market share and employment levels will suffer. I can tell you that I am sure that if we at P&G had not been pursuing R&D innovation on a global basis, our non-U.S. based competition would have far higher shares of our largest categories in the U.S. than they do today and ours would be a lot lower.
2. Second, many jobs in the U.S. support operations overseas. So the more that global R&D helps us grow abroad, the more it helps boost the U.S. jobs tied to those overseas sales. For example, growth in our hair care business, most of which has been outside of the U.S. has led to a significant increase in our U.S. R&D jobs. Overall, as P&G's overseas sales have grown from 29% in 1978 to 50% of our total, we have steadily added U.S.-based R&D personnel. In fact, U.S. R&D employment has increased from about 3000 to over 5000 over this 20 year period.

### **U.S. Tax Revenues**

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The third of the four benefits is higher U.S. taxes.

Global R&D helps keep us strong and growing in the United States, boosting our domestic sales and, therefore, our U.S. federal income tax payments. In 1984, P&G earned \$890 million on its worldwide sales. By 1998, this had quadrupled to \$3.8 billion. Our tax payments to Uncle Sam grew accordingly.

In addition, we receive royalties for licensing our technology to our international subsidiaries. So, the greater our international sales, the greater the royalty revenue. Repatriating that royalty income means we pay additional U.S. taxes.

In 1998, P&G paid about \$1 Billion in federal income taxes. A large portion of this is attributable to the payoff of our global R&D effort.

### **Shareholder Value**

The final benefit of a globalized R&D operation may be the least understood and least appreciated. And that is its impact on market capitalization or shareholder value.

By helping a company grow and be a leader in the U.S. and worldwide, a strong global R&D effort contributes to rising stock values.

These rising stock values benefit the millions of Americans whose wealth and retirement savings are tied increasingly to the performance of U.S. equities.

You may find this surprising, but between 1990 and 1997, the

percentage of Americans owning stock increased from about 20% to 43%. Today the figure approaches half of all U.S. families.

So what's this have to do with global R&D? Here's what. We recently analyzed the S&P 500 companies to identify the characteristics of the top and bottom performing firms. We restricted this to research-based companies, and the results are graphic. The annualized 10-year shareholder return of the top 50 companies on this list was 32%. That compares to 3.4% for the bottom 50. Virtually all of the top performers have sizable global businesses. And beyond that, these top performing companies are considerably more research intensive, investing over twice as much per sales dollar as the bottom group.

Net, when global R&D keeps us in a leadership position here at home and helps us grow abroad, shareholders benefit -- and remember today shareholders represent about half the population.

### **The Costs of Inaction**

To recap, there are four important national benefits when P&G and other U.S. firms have strong global R&D: better products for Americans, more domestic jobs; increased tax revenues, and financial benefits for the tens of millions of Americans whose wealth and pensions depend on stocks that grow strongly.

But what if P&G and others do not maintain global R&D and global

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technological and market leadership?  
What then?

Well, as I've said, if we fail to be a global leader, if we fail to have a global R&D capability, we will not only lose market share overseas. We'll also make it easier for non-U.S. competitors to penetrate the U.S. market, reducing our sales, profits, and jobs here at home.

Non-U.S. competitors will not be so preoccupied defending their home base so it will be easier for them to compete with us here.

And, we'll lose the benefit that simply comes from competing against the best world competitors on their home turf.

In total, companies that do not compete actively overseas, and do not take advantage of worldwide opportunities in technology, risk being "blind-sided" by more knowledgeable and agile rivals. They risk not only losing market share overseas but also market share and jobs here in America.

### **Making the Case to Government and Citizens**

I realize that in many ways I'm preaching to the converted here. Most of your companies have strong overseas R&D operations. But as you know, many officials in Washington and many citizens throughout our country are asking whether globalization and free trade are good for America.

We saw skepticism reflected last year in the inability to persuade the U.S.

Congress to authorize "fast-track authority" for a new round of global trade negotiations. We see skepticism surrounding Chinese accession to the WTO. We hear questions about U.S. companies expanding R&D and production overseas. It's sometimes asked, "can't American firms simply expand operations and jobs here at home and then export more?"

I am not here today to discuss overall trade policy, although I care deeply about the subject. But I am here today to say that we, the key representatives of U.S. technology-based companies, have a responsibility to ourselves and to our country to share the realities of this situation.

We need to show that expanding R&D facilities overseas is, at least for many businesses, a key not only to growth abroad but to continued competitiveness, jobs, and taxes here at home, as well as to provide better products for consumers.

We need to show that only by accessing the best ideas and people everywhere will we stay market leaders anywhere.

We need to show that a policy of keeping operations only in the United States risks our overall market leadership and the ability of successful companies to increase their market value to the benefit of millions of Americans who own these companies.

### **Making the Case for a Pro-Innovation Environment Here at Home**

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Finally, we need to explain why, in this global economy, the United States needs a pro-innovation business environment.

The United States benefits from policies that encourage and foster R&D in this country. In my view, four areas are particularly important.

1. We need continued federal support for university research and education. We need that support to maintain a strong research base in the United States, and we need it to train top-quality scientists and engineers. Historically, Congress and the Administration have recognized this point through their strong support for the National Science Foundation and the National Institutes of Health. We in industry need to encourage continued strong support of these important programs.
2. Strengthened K-12 education in this country is vital. The better we train a skilled, diverse workforce in this country, the more incentive there is for P&G and other companies to maintain strong operations here and create jobs. I believe K-12 educational reform is gaining badly needed and long overdue momentum. I'm pleased to see growing emphasis on aligned higher level standards, assessment tools and curricula. But there are still miles to go. We in industry need to encourage and drive educational reform in every area we can influence.

3. Third, we in industry need to emphasize the importance of the federal research and experimentation tax credit. The government should make the credit permanent, or at least extend it for a number of years.
4. Finally, good patent and regulatory policies also encourage companies such as ours to keep and expand our U.S. R&D effort. P&G has strongly supported patent law reform, including such important issues as reexamination, and first-to-file.

Ladies and gentlemen, the facts demonstrate that strong global R&D operations produce concrete and incredibly important benefits not only for the companies involved but for the United States as a nation. The innovations that global R&D produce are more important than ever today. And they will be even more important tomorrow. We know this. We need to emphasize these benefits so that the United States develops and maintains favorable policies for innovation so vital to economic growth. I ask you: if we don't do this, who will?

Thank you.