# Pfizer Boosts Efficiency by 15 Percent with Easy to Use, Shared Note-Taking Program

## Overview

**Country or Region:** United States
**Industry:** Life sciences—Pharmaceuticals

### Customer Profile

Pfizer is the world's largest research-based biomedical and pharmaceutical company. In 2008, the company invested U.S.$7.5 billion in research and development, and generated $48.3 billion in revenue.

### Business Situation

Pfizer lacked an easy way for scientists to store, access, and share knowledge across project teams.

### Solution

Pfizer blended the intuitive user interface of Microsoft® Office OneNote® 2007 and the robust document management technology of Microsoft Office SharePoint® Server 2007.

### Benefits

- Faster time-to-market
- Increased cost and time saving
- Improved engagement and team cohesion
- Enhanced knowledge management
- Better decision making

> "We see potential for OneNote 2007 and SharePoint Server 2007 to help us get our products to market sooner…. Every month of market exclusivity can equal millions of dollars in revenue."
>
> Nuzrul Haque, Customer Engagement Manager, Worldwide Technology, Research and Development Informatics, Pfizer

For the past 150 years, Pfizer has pioneered the development of some of the industry's most innovative pharmaceutical products. In 2007, Pfizer applied this "out of the box" thinking to a pilot program designed to enhance efficiency and knowledge management across project teams, and potentially speed time-to-market for new products. The pilot brought together the simple, intuitive user interface of the Microsoft® Office OneNote® 2007 note-taking program with the robust document management technology of Microsoft Office SharePoint® Server 2007. As a result, pilot participants reported a significant decrease in the number of e-mail messages they send each day, and one group reported a 15 percent increase in efficiency. Overall, the 600 participants reported a 2 percent time savings per week, which represents a cost savings of approximately U.S.$2.25 million.

## Situation

Since 1849, Pfizer has been dedicated to the development of safe, effective, and affordable medicines for the prevention and treatment of diseases across a broad range of therapeutic areas. According to 2008 industry sales reports, Pfizer is the largest research-based biomedical and pharmaceutical company in the world, with a portfolio that includes such top-selling drugs as Lipitor, Viagra, Zoloft, and Zyrtec.

To maintain its position as a global leader in the healthcare industry, Pfizer invests heavily in research and development. In 2008, the company spent U.S.$7.5 billion—15 percent of its $48.3 billion revenue—on research and development efforts. For Pfizer, increasing the efficiency of research and development teams is a top priority—the sooner that new prescription medicines and pharmaceutical products can be brought to market, the sooner they can begin to help people live longer, healthier lives.

Faster time-to-market is also important from a business perspective. In the pharmaceutical industry, a company owns exclusive rights to a therapeutic compound for 10 years from the date that the patent is issued. "We file patents on new compounds several years before we actually get them to market," says Chris Barber, Associate Research Fellow, Worldwide Medicinal Chemistry, Pfizer. "If we can shave even a few months off of our development cycle and increase the number of months of exclusivity in the market—that can have a huge impact on our bottom line."

Ben Gardner (Biology Customer Engagement Manager, Worldwide Technology, Research and Development Informatics, Pfizer) cites the sales of Lipitor as an example. "Lipitor is the top selling drug in the world," he explains. "In 2008, sales of Lipitor generated $12.4 billion. So, each additional month of exclusivity would equal about one billion dollars in revenue. Not all drugs are like that, but you can see how a seemingly small time savings can actually generate significant revenue."

With this in mind, Gardner and his team began looking for a technology solution that would help project groups work more efficiently. "Drug discovery involves tens, hundreds, even thousands of compounds," Barber explains. "They all get screened, and the information is sent back to the chemists to say, 'Make more like this,' or, 'Stop making compounds like this.' The process is a continuous cycle. Pfizer has developed a solid infrastructure for recording individual data points against each individual compound. But what we didn't have was an easy, accessible way of storing—and subsequently sharing—the knowledge that we collected or the rationale for decisions we made during a project."

Over the years, Pfizer has also adopted a number of disparate document filing repositories. "Unfortunately, they're all very cumbersome," says Gardner. "Research team members perform different types of experiments, and traditionally they'd each file their findings in separate repositories. In order to understand what we learned from an experiment, we had to look in three or four different legacy systems. Also, the documents had no meaning whatsoever in their titles, so we had to open each individual file to find out what it contained. We eventually began saving files on our desktops or in e-mail folders because we wanted to have seamless access to our files, whether we were online or offline. This was something that we simply couldn't do with our existing file share systems."

## Solution

In 2007, Pfizer authorized a pilot program at its Research and Development Informatics

Division in Sandwich, England, to explore the use of the Microsoft® Office OneNote® 2007 note-taking program. Pfizer had already introduced an enterprisewide content management strategy based on Microsoft Office SharePoint® Server 2007, and pilot coordinators were eager to combine Office OneNote 2007 with SharePoint Server 2007.

"Essentially, we're using Office OneNote 2007 to provide an intuitive, user-friendly interface to the SharePoint Server 2007 document library," Gardner explains. All content added to or created in OneNote 2007 is stored in SharePoint Server 2007. Users can continue to work in shared OneNote 2007 notebooks even when they're offline, and the notebooks synchronize automatically when the users connect to the network. "All of the complexities are managed in the background, so the user experience is seamless," adds Gardner. (*See Figure 1.*)

Initially, Pfizer conducted the pilot with two Therapeutic Area (TA) teams, but word quickly spread amongst the research community

sharing. As a result and in partnership with Research and Development leadership, the pilot was expanded into a full-scale deployment to the entire Research and Development division at Sandwich, totaling approximately 600 users. Currently, all TA drug discovery project teams use shared OneNote 2007 notebooks as their primary method of communication and information sharing, with approximately 70 OneNote 2007 project notebooks in daily use across the division.

Pilot participants commented that Office OneNote 2007 is intuitive and simple to use, and it works easily with other Microsoft Office products such as Microsoft Office Excel® spreadsheet software, the Microsoft Office PowerPoint® presentation graphics program, and Microsoft Office Outlook® messaging and collaboration client. Users add new content into the shared project notebook using a drag-and-drop operation, and OneNote 2007 automatically manages the task of loading these changes to the master notebook stored on SharePoint Server 2007. (*See Figure 2.*)

"In many ways, using OneNote 2007 is as simple as writing in a paper notebook, except that we can do so much more," says Nuzrul Haque, Customer Engagement Manager, Worldwide Technology, Research and Development Informatics, Pfizer. "We can easily drop an Excel graph or an Outlook e-mail message into a OneNote notebook. We can insert PowerPoint slides that describe a series of compounds and why they're interesting, or make detailed notes that describe what our next steps will be. With OneNote 2007, capturing all of this additional information doesn't require any extra effort—it's simply part of our normal workflow process. And, from a corporate point of view, the data is backed up and more secure
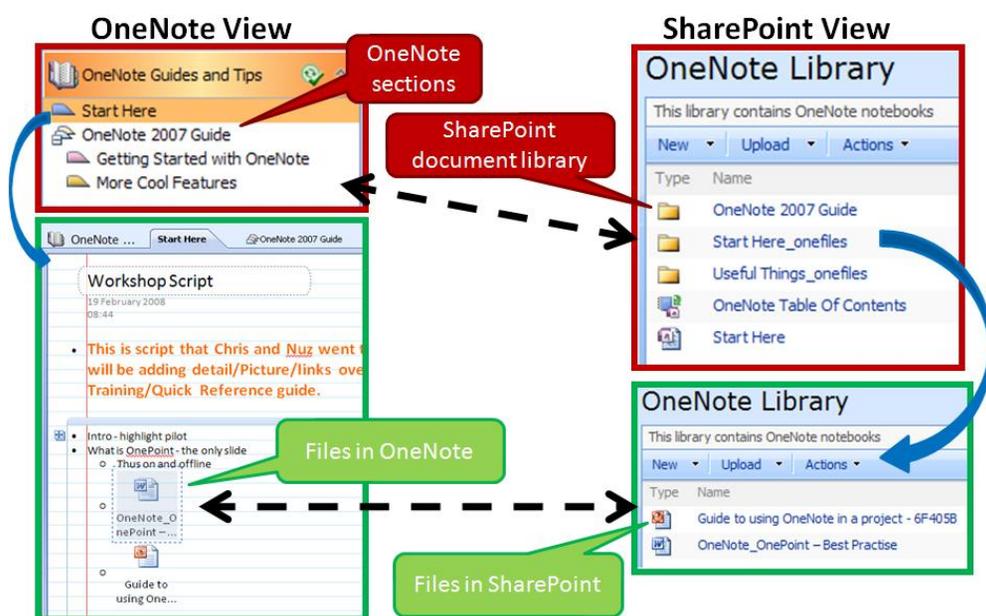


Figure 1. Pfizer uses Office OneNote 2007 to provide an intuitive, user-friendly interface to the Office SharePoint Server 2007 document library.
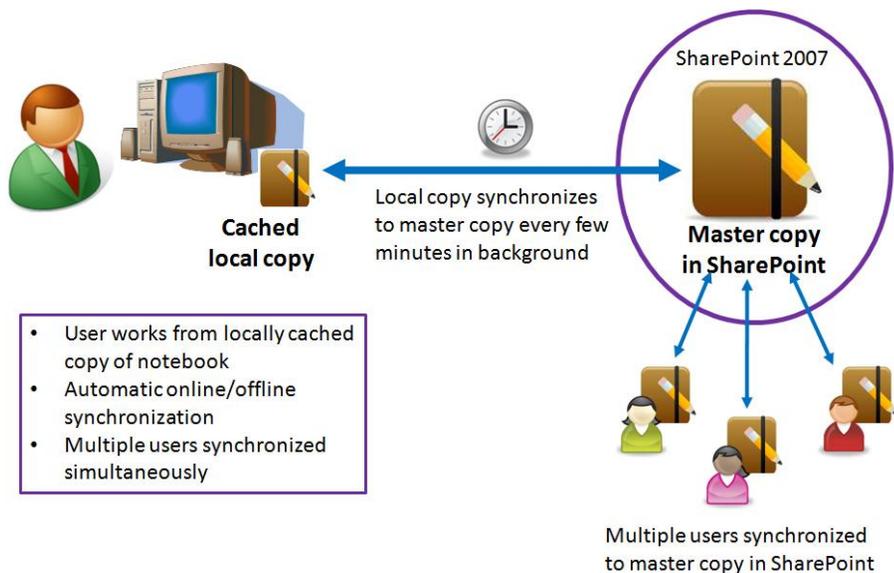
Figure 2. Office OneNote 2007 automatically manages the task of synchronizing locally cached copies of project notebooks with the master notebook stored on Office SharePoint Server 2007.

because it's stored in a SharePoint Server 2007 document library."

Before the use of shared OneNote 2007 notebooks, Pfizer lacked an easy way for scientists to describe the rationale behind decisions they made during a project, or to find information generated by previous project teams. "Now, with Office OneNote 2007, we generate a summary page that's publishable to our corporate wiki and therefore becomes searchable and sharable across the enterprise," Haque says. "I see the potential to create a library of OneNote 2007 project notebooks so that—in five years' time when researchers come across similar problems to the ones we're facing today—they can search for and find the OneNote 2007 project notebook created by a previous research team. They'll say, 'Here's the graph that I need to generate to understand what to do next.' This solution could profoundly change the way we collaborate, now and in the future."

## Benefits

To maintain its position as an industry leader, Pfizer realized that it needed to increase the productivity and efficiency of its project teams. The company developed an innovative solution that blends the intuitive user interface of Office OneNote 2007 with the robust document management technology of Office SharePoint Server 2007. The resulting solution potentially speeds time-to-market, boosts time and cost savings, improves collaboration, and enhances knowledge management.

### Faster Time-to-Market

In the pharmaceutical industry, developing a new drug is about making decisions, such as what type of compound to make next and how to test it. These decisions are enabled by the knowledge gained from the creation and testing of previous compounds. By using Office OneNote 2007 and Office SharePoint Server 2007, Pfizer employees have easy access to centrally located information so they can make the right decisions quickly.

When pilot participants were asked to quantify the amount of time they save by using the solution, approximately 70 percent said they saved 30 minutes or more each week. The mean time savings weighted across all responders was approximately 45 minutes each week, for a 2 percent time savings.

"Even a 2 percent time savings is significant when you consider that every month of market exclusivity can equal millions of dollars in revenue," says Haque. "That's why we're excited. We see potential for OneNote 2007 and SharePoint Server 2007 to help us get our products to market sooner. Previously, when we needed to generate documents or put reports together, we had to go to five different places. Now, all of the information is in one place. We can make

better decisions more quickly, which could result in shorter development cycles."

In 2008, the average revenue for all Pfizer pharmaceuticals was $1.75 billion, meaning that if Pfizer could bring a typical product to market more quickly, the company could potentially generate additional revenues of approximately $145.8 million each month.

### Cost and Time Savings

Based on participant feedback, Gardner calculated an approximate cost savings and return on investment (ROI). "If time savings alone was used to measure ROI, then—assuming that one full-time employee equates to a $200,000 cost per year—a 2 percent time savings equates to $3,750 per user per year," he explains. With 600 users participating in the initial deployment, this represents a potential cost savings of $2.25 million per year. If Pfizer decided to expand the use of Office OneNote 2007 and Office SharePoint Server 2007 to even a fraction of its 100,000 employees, the cost savings could be astronomical.

Gardner adds, "While there is a big difference between saving people time and converting the saved time into new productive work, this figure does provide a baseline for estimating the value of shared notebooks—particularly if we wrap the many other benefits, that are far more difficult to quantify, into this figure."

One project-specific example of time savings came from the MC4 project team in the Gerintourinary Therapeutic Area at Sandwich. Using the "agile processes" development model (based on the self-organization of teams to handle the complexities inherent in development projects), the team completed its project 30 percent faster than the standard operating process. "The research project leader estimated that 15 percent of this time savings could be directly attributed

to the use of a shared OneNote 2007 notebook," Gardner says.

Using Office OneNote 2007 and Office SharePoint Server 2007 as a shared information repository, project teams reported a significant reduction in the number of e-mail messages they sent each day. They also reported a reduction in the number of post-meeting e-mail messages they received—from three for each agenda item to zero. In addition, Pfizer estimates the amount of data stored on the company's Microsoft Exchange Server decreased from eight or more Office Outlook appointments (multiplied by the size of the file, and multiplied again by the number of people on the distribution list) to one Outlook appointment for each user.

"Now if I receive an e-mail message with a large attachment, I can drop it into OneNote 2007 and deal with it when I feel like it rather than because my inbox is getting full," Barber says. "That's a fantastic change for me."

### Improved Engagement and Team Cohesion

A number of anecdotal reports indicate that teams are displaying improved engagement and cohesion. "Giving each team member responsibility for and management of a section of the OneNote 2007 project notebook is resulting in the building of trust, the transparency of activity, and the strengthening of ties within the team," Gardner says. "This means that individuals feel more involved in the project as a whole. Junior members of project teams are including information in their presentations and reports from other sections of the project. Previously, they weren't doing this because the information wasn't easily accessible. Now, we're seeing an increase in the baseline level of understanding across the whole project. In other words, the scientists are more engaged. The value of that is far reaching, but difficult to quantify."

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### Enhanced Knowledge Management and Decision Making

In user feedback surveys, 70 percent of pilot participants credited the use of shared OneNote 2007 notebooks with "enhancing or strongly enhancing" the way that they work. Additionally, 60 percent of managers and project leaders indicated that shared OneNote 2007 notebooks improved their access to decision-making data.
"Through the use of shared OneNote 2007 notebooks we are—possibly for the first time—actually realizing the promise of knowledge management," says Gardner. "We are seeing improvements in the efficiency of working, the capture of tacit along with explicit knowledge, and enhancement of team cohesion. In addition, by using OneNote 2007 in conjunction with SharePoint Server 2007, all of this information is being captured in a fully searchable system that is compliant with Pfizer's content management strategy."

Barber concludes, "I think one of the most important results of this pilot is a dramatic change in culture. People are starting to believe that the information they're generating is actually part of the whole project, rather than something that resides solely on their desktops and that will eventually be lost in a file share. We're shifting to a culture of knowledge sharing, of saying that this information is for all of us. Capturing and sharing rationale in this way will help us make better decisions and make them more quickly. We can build on our knowledge base, rather than starting from scratch."

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