Now more than ever, we are looking for ways to deliver more value to our customers and higher returns to our shareholders, while creating an environment where it is fun to explore ideas, incubate concepts and work with our business group and open innovation partners in bringing leading technologies and services into customers’ hands. At Xerox we believe our continued focus on innovation allows us to do so.

Innovation Drives Profitable Growth

Today’s global businesses face many challenges. Globalization trends have created new competition. The basis of competitiveness is increasingly due to the successful management of the organizations’ knowledge and intellectual capital. Value chains are being deconstructed and reconstructed in a fluid like manner. The information explosion is fueling productivity challenges. Human endeavors are past the point of sustainability in much of the world. The status quo is not an option.

In this context of constant change, we must continue to differentiate the technologies or services that we offer to our customers. With the acquisition of ACS, Xerox is now generating more than half of its revenues from our services businesses. While many services available are labor based, there are vast opportunities to leverage technologies to enable very high performing and agile services. One current focus of ours is to simplify and automate business processes leveraging state-of-the-art platforms and cloud based infrastructures. Our approaches create benefits across industries and within key verticals that ACS is a leader in. Another focus of our services research is to leverage real-time data analytics to harvest valuable insights from our clients.

Additionally, we continue to make color ubiquitous by lowering cost, improving quality and reducing the environmental footprint of digital printing. We see great things ahead for our proprietary inkjet technologies with an ever expanding application scope and value proposition. A key to making digital color printing ubiquitous is easy to use solutions that enable personalization to deliver higher value from digital printing.

Finally researchers around the globe are exploring advanced technologies and services that minimize the environmental impact of business processes and document management and maximize social impact.

One critical role of our research is to envision the future and define new research and competency areas for that future. Our accumulated knowledge about printing processes, materials, image processing, knowledge work, and smarter document technologies form a strong foundation for exploring new areas for Xerox, with potential beyond the core businesses today.

In summary, Xerox is charting the course that will enable customers to continue to do great work, today, tomorrow and in the years to come. Seeing the world in new ways and successfully innovating is in our DNA. Xerox has the research foundation and the strong roadmap for the future to continue our leadership as one of the world’s top innovators.

Welcome

Xerox researchers and business teams worldwide are delighting our customers by creating a continuous stream of product and service innovations for Xerox.

The vision of our global research centers is to be the innovation spearhead for Xerox, our customers and the world. Our mission is to pioneer high-impact technologies that enable us to lead in our core markets and to create future markets for Xerox.
Unique Roles of Research

**Innovation only happens when it makes a difference to our customers.** The Xerox Innovation Group ensures a balanced portfolio of research and technology projects that address the needs of today’s businesses as well as create options for the future. We think of our projects as having impact on three horizons - short, mid and long term and for each type of project we play a unique role, as partners, incubators or explorers.

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**Partnership Projects:**
Approximately 35% of our research investments directly support our business partners. Our researchers collaborate closely with development engineers to accelerate the uptake of new technologies and services.

**Incubation Projects:**
Another 35% of our research investments are directed at creating the next generation technologies and services or to incubate new offering concepts. Research on next generation technologies includes both improvements to current technologies as well as disruptive technologies.

**Exploration Projects:**
The remaining 30% of our research investments explore future opportunities and build new insight into the potential of new technologies. Here we focus on pioneering areas that can create new business opportunities for Xerox and the competencies for the future.

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**Dreaming with Customers**
To strengthen the market relevance of all of our research, we have a focus on what we call “Customer Led Innovation” where researchers work directly with customers to learn about and respond to their wishes and worries.

**Open Xerox**
Open Xerox was created to allow customers to test drive new services and applications from our labs ranging from early stage alpha projects to more mature technologies and providing us with critical customer feedback.

www.open.xerox.com

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**Innovation Ecosystems**
Today’s competitive environment demands best in class offerings delivered in record time. Vertically integrated, closed innovation is no longer an option. We build our solutions and services leveraging an ecosystem of best-of-breed ideas, technologies and capabilities from Open Innovation partners.
Get Connected to Innovation at Xerox

Innovation in Xerox today is multifaceted covering a broad range of businesses. Our overall aim is to create value for our customers, for our shareholders and for our people by aligning our investments and influencing the future in key areas. Our research agenda spans our traditional printing and imaging domains and extends into technology based solutions and business process outsourcing and services. Informed by a deep understanding of technology trends, four innovation themes emerge in our research portfolio. They span across hardware and software areas and benefit from cross disciplinary research programs across our global research centers.

Implementing Agile Business Processes
Businesses today seek agility in order to respond to market changes and new business requirements. To enable true business process agility, our research aims to automate business processes via flexible platforms that run on robust and scalable infrastructures. Automation of business processes benefits from our research on image, video and natural language processing coupled with machine learning. Application of these methods to business processes enables technology to perform tasks that today are performed manually by workers, thus enhancing worker productivity. Our research also explores how to optimally accomplish distributed work, optimizing the use of physical assets and human talent. A focus area for us today includes applying crowdsourcing techniques to business process outsourcing. By implementing our solutions on state-of-the-art cloud based frameworks, we enable scalability and availability, while ensuring security and integrity of vital corporate assets.

Harvesting Knowledge from Information
It is well known today that competitive advantage can be achieved by better utilization of real-time information. Today, information resides in an ever increasing universe of servers, repositories, and formats. The vast majority of information is unstructured. A key research area for us is making sense of unstructured information using natural language processing and semantic analysis. We also explore how to better organize information for human consumption using available contextual information on how the information has been created and used. A second major research area develops proprietary methods for predictive analytics applied to business processes. Here we consider how to manage very large data systems in order to extract business insights. Specialization of these methods to various vertical applications leads to new customer value propositions. We also explore how to leverage social media information sources to extract insights for our customers and for service and technology improvement.

Xerox multifunction devices create easy on-ramps to automated business workflows with a touch of the button.

Mining unstructured information in electronic medical records enables early detection of hospital acquired diseases.
Delivering the Value of Personalization

Whether one is talking about business correspondence, personal communication or manufactured items, personalization increases the value to the recipient. Our research leads to technologies that improve the efficiency, economics and relevancy of business communications and printing applications. We research methods to create affordable ubiquitous color printing, leveraging our proprietary piezo printing technology. We also research how to expand the application space of digital printing to cover new applications such as packaging printing and printing directly on end-use products. Our imaging research today aims to simplify the tasks and skills required to personalize content, thus enabling broader adoption of personalization. We also research the application of analytics based methods to improve the relevancy of communication with hyper-local targeting capability.

Enabling the Sustainable Enterprise

Increasing global demand for energy and the environmental consequences of products used by enterprises and consumers requires broad based action from many sectors. Our research in Xerox aims to develop technologies that can minimize the environmental impact of document systems and business processes. We are continually working on lowering the operating and standby power of our printing systems by using new materials and print processes. In selecting our approaches we look for opportunities to utilize processes and components that will lead to waste free and zero persistent bioaccumulation. We are also actively investigating how to incorporate bio-based materials in our consumables, substituting for non-renewal based components. To help our customers optimize their operations, research is creating new enterprise wide energy optimization tools and user sustainability feedback systems.

Advanced technologies and services improve the efficiency, economics and relevancy of business communications and printing applications.

Advanced technologies and services minimize the environmental impact of business processes and document management and maximize social impact.
**Xerox innovation brings together many disciplines and technical competencies.**

Xerox is unique in this respect in that its research has spanned everything from traditional physical and mathematical sciences, mechanical and electrical engineering through to the social sciences.

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**Xerox Research Centre of Canada**

XRCC is Xerox’s materials research center, enabling the flow of leading-edge imaging and consumable materials from research concepts to supplies solutions. Founded in 1974, XRCC leverages its core competencies in materials design, synthesis, characterization, evaluation and scale-up to deliver with partners environmentally sound materials and processes that support higher-quality and lower-cost color and monochrome products for both office and production markets.

Specifically, XRCC conducts fundamental and applied materials research in toners, inks, photoreceptors and specialty substrates to support xerographic and direct marking technologies.

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**Xerox Research Centre Europe**

Xerox established its European research center in France in the early 90’s to create innovative document technology and drive the corporate transition in becoming a services-led technology driven business. The center coordinates research, advanced development and the Technology Showroom, a customer showcase for Xerox research and a technology exchange forum.

The center also develops connections within the wider European scientific community through collaborative projects and partnerships.

XRCE research differentiates Xerox business process services offerings. The center focuses on image, text and data analytics, business process modeling and the study and understanding of work practices.

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**Xerox Research Center Webster**

For more than 50 years the innovations developed at XRCW have contributed to the most successful products and services in Xerox’s history. The breadth and depth of our expertise in system design, imaging, computing and marking science contribute to Xerox’s ability to solve complex business problems for customers. XRCW’s world-class researchers have contributed significantly to the technical foundation and intellectual property protection of Xerox’s document-technology business. Today the center is extending its capabilities to meet the needs of all Xerox businesses.
Xerox research is where creativity and entrepreneurship are truly valued and leadership empowers you to deliver; we perform leading-edge research and create high-impact innovations that make a difference in the world; we create an inclusive environment where the brightest people from diverse disciplines and cultures thrive.

Xerox Research Centre India
Inaugurated in March 2010 the Xerox Research Center India’s mission is to capture innovation opportunities for Xerox in the emerging markets and to advance its position as the leading global provider of document and business process services.

Researchers at the centre work on cutting-edge technologies, including cloud computing, crowdsourcing and business analytics while leveraging Xerox’s established expertise in imaging, document management and ethnography to develop innovative services and solutions.

Seeded and built on a strong Open Innovation model, this centre connects researchers and scientists from across Xerox in close, collaborative partnerships with leading institutions in India.

Palo Alto Research Center
PARC is a wholly owned subsidiary of Xerox and an integral part of Xerox’s strategy for long-term research investment. Founded in 1970 as a part of Xerox Research, PARC was incorporated in 2002 as an independent business for commercial innovation.

As the birthplace of technologies such as laser printing, Ethernet, the graphical user interface, and ubiquitous computing, PARC has an established track record for transforming industries and creating commercial value. Xerox continues to embed relevant PARC technology into its offerings. PARC is also delivering its innovations to non-competitive industry partners.

Current focus areas are content-centric networking, clean tech and energy systems, ethnography services, novel electronics, flow cytometry, LEDs and laser diodes, intelligent mobile computing and intelligent automation. Additional competencies include bioinformatics, flexible and large-area electronics, fluid dynamics, microelectronics, model based reasoning, natural language processing, optics, optoelectronics emitters, security and privacy, social computing, semiconductors, socio-psychological modeling, thin film, and ubiquitous computing.

US National Medal of Technology
“recognizing over fifty years of innovation in marking, materials, electronics and communications that created the modern reprographics, electronic printing, and print on demand industries”.
One of the fundamental strengths of the Xerox Innovation Group is the diversity of our people.

XIG benefits in a variety of ways from diversity in gender, culture, age, race, sexual orientation, physical ability, education, work style, and thought:

- Diversity of perspective and experience are required for creativity and innovation, which are at the heart of our organizational mission.
- Diverse people bring different and complementary leadership styles to the organization.
- An inclusive organizational culture contributes to employee satisfaction.
- The users of our technology and our customers are themselves a diverse group. Our own diversity helps us understand and address their business needs.

Diversity doesn’t happen by accident. There is a natural tendency to support and perpetuate the familiar. Increasing diversity requires attention and commitment. XIG managers have a key role in making decisions that support and increase diversity. Every XIG employee has a role in creating an environment that welcomes and supports the diversity of their fellow employees.

“Diversity is about more than race and gender; it’s about more than numbers. It’s about inclusion.

Diversity means creating an environment where all employees can grow to their fullest potential.”

Ursula Burns
Chairman & CEO, Xerox Corporation
Innovation in the Community

From our earliest days as a company, Xerox has been shaping the idea of Corporate Social Responsibility. Through the Xerox Foundation, our education and social service efforts are an extension of our belief that a successful corporation must be an active participant in society.

Today, the Xerox Foundation is the hand that gives something back to the communities from which we draw our employees, our customers and our freedom to conduct business. The following are several initiatives within the R&D community that receive support from the Foundation.

University Affairs Committee
The University Affairs Committee (UAC) awards unrestricted grants to selected universities to support collaborative projects sponsored by Xerox employees. The grants promote long-term university interactions that encourage foundation research in areas relevant to Xerox, enhance Xerox’s recruiting efforts, and help keep Xerox abreast of emerging technologies. Approximately forty new or renewal grants are paid each year, with funding provided by the Xerox Foundation.

Any Xerox employee is eligible to sponsor a grant. Grants are awarded by the UAC through competitive evaluation of proposals according to technical merit, relevance to Xerox, quality of the university and faculty, and commitment of the proposing employee. Awards are typically about $30K per year, and may be renewed for up to a total of three years.

Xerox Technical Minority Scholarship Program
The Xerox Technical Minority Scholarship Program, funded by The Xerox Foundation, was developed to demonstrate Xerox’s strong commitment to the academic success of minority students and to the cultivation of qualified minority employees in technical fields.

The scholarship program began in 1987; since then, more than 1,400 students have benefited from almost $2 million in funding.

Scholarships are made available to minority students enrolled in technical degree programs at the bachelor’s degree level or above. Eligible students must have a grade point average of 3.0 or higher and show financial need. Students are allowed to reapply for the scholarship on an annual basis.

The Xerox Science Consultant Program
This is partnership with the Rochester, N.Y. City, and Webster N.Y. Suburban School districts -- sends Xerox engineers and scientists into elementary schools twice a month to engage young learners in biology, chemistry, earth science, physics and other scientific disciplines. Begun in 1968, the program is marking its 40th anniversary this year.

The FIRST program
An acronym for “For Inspiration and Recognition of Science and Technology” -- is an international competition that teams professionals and high school-level students in an effort to solve engineering design problems through robotics. Xerox-sponsored teams have competed in Monroe County N.Y. since 1992 when FIRST was founded.

PRIS²M
PRIS²M is a Rochester Business Alliance initiative that offers opportunities for minority students to experience math, science and technology enrichment through visits to work sites and colleges, scholarships as well as participation in cross-team competitions and workshops. During the academic year, PRIS²M students participate in activities designed to increase their interest in math, science and technology; develop their leadership potential, organization, and communications skills, and enhance their academic preparation with math and science experiences outside of the classroom. Xerox is a corporate contributor to PRIS²M.