

## (2) Education Framework

The Intellectual Property Center organizes education and training programs for developers on issues involving intellectual property that are essential to our development activities, in areas that include intellectual property basics, understanding inventions and interpreting the wording of patent application specifications and conducting prior art searches. More specifically, basic training on intellectual property is provided to developers during their first year of employment, along with numerous training courses on intellectual property through Konica Minolta College, which acts as a company-wide educational system offering employees the option of taking multiple courses to enhance their skills. These types of educational programs are not limited to Japan, but are also provided to overseas developers. At the development site in China, for example, we implement and operate programs on intellectual property basics for local developers. Starting in fiscal 2014, educational programs were launched on topics that include techniques for developing ideas, with the aim of further increasing the quality of patent applications.

Meanwhile, training of Intellectual Property Center staff members is also of great importance to us. As such, we actively develop the capabilities of such employees by offering on-the-job development (OJD) and in-house study groups, and also by having them take part in training programs outside the company where they learn about legal systems and practices related to patents in different countries. We also put a great deal of effort into professional development through well-planned initiatives that include assigning employees to overseas law firms and sending them to universities in the U.S. and China as international students, all with the aim of ensuring that our employees are capable of playing an active role in the realm of global intellectual property.

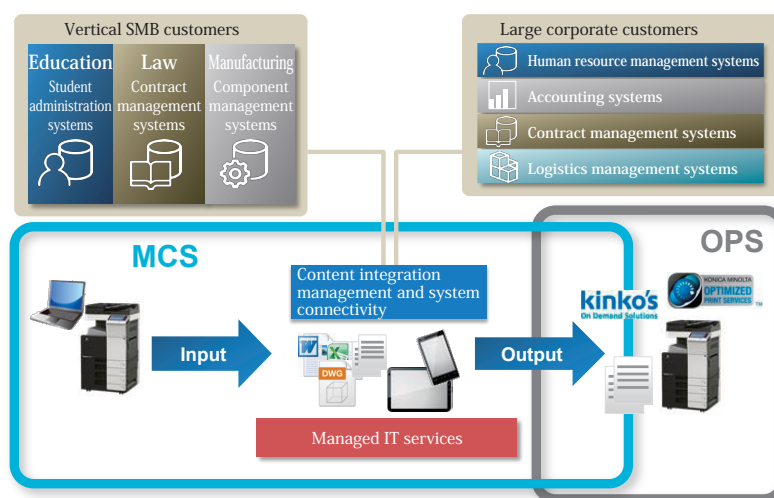
## 5. Intellectual Property Underpinning Individual Businesses

### (1) Business Technologies Business

The Business Technologies Business domain consists of the office services business with MFP as the core product and the commercial and industrial printing business, which handles digital printing systems used in the Commercial Printer business and Centralized Reprographic Department.

In the office services business, our development efforts are geared toward increasing speed and quality of MFPs and other functional improvements, and are also pursued with the aim of proposing solutions enabling total optimization of customer office environments by combining our MFPs with our ICT (information communication technology) services. This is particularly the case with respect to our initiatives in developing technologies relevant to our Managed Content Services (MCS)<sup>\*7</sup> which involve delving into a customer's business processes and providing them with systems that enable integrated management of content and devices for input and output of such content, and also relevant to our Optimized Print Services (OPS)<sup>\*8</sup> where we provide ideal set-ups with multiple MFPs and printers tailored to customer needs (see illustration below).

### Managed Content Services (MCS) & Optimized Print Services (OPS)



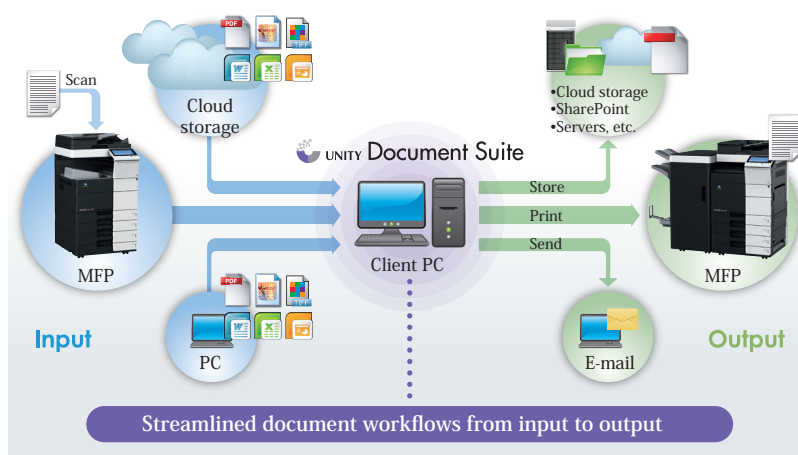
\*7 For MCS, visit our website: [http://www.konicaminolta.com/about/releases/2014/1003\\_02\\_01.html](http://www.konicaminolta.com/about/releases/2014/1003_02_01.html)

\*8 For OPS, visit our website: <http://www.biz.konicaminolta.com/services/ops/index.html>

For example, with respect to technology relevant to our MCS offerings, we have developed the Unity Document Suite software<sup>\*9</sup> package, which links to MFP scanning functions and cloud services so that users can coordinate their paper and electronic documents and other such content, thereby enabling central management of such data. This results in more streamlined document workflows up to the content input and output stages (see illustration below).

We have taken a strategic approach in filing patent applications on a worldwide basis in the field of solutions-related technologies that combine MFPs and ICT services in this manner. As such, we have steadily amassed patent assets to the point where our published patent applications in the solutions-related technology field numbered over 1,000 as of the end of fiscal 2014.

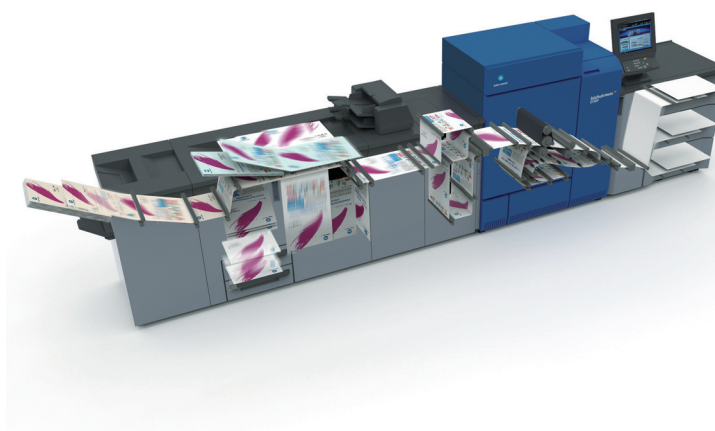
### Utility Document Suite system configuration



Moreover, we have been developing products in the commercial and industrial printing business with the aim of bringing about further improvement with respect to image stability, capacity for handling a diverse variety of paper types, and productivity during continuous printer operation. These efforts underpinned our fiscal 2014 launch of the bizhub PRESS C1100 series<sup>\*10</sup> top-of-the-line color digital printing systems tailored to the commercial printing market (see photo below). Having earned high marks for its capabilities in that regard, the bizhub PRESS C1100 series was recognized with the Production Printer 2015 PRO Award<sup>\*11</sup> from independent test lab Buyers Laboratory LLC. for having demonstrated the best performance in the commercial and industrial printing business realm. This marks the third consecutive year that the bizhub PRESS series has won this award.

As of March 31, 2014, Konica Minolta held over 1,800 patents related to the commercial and industrial printing business as a result of efforts focusing on filing patent applications with respect to technologies relevant to such product development efforts.

### bizhub PRESS C1100



\*9 For detailed information on the Unity Document Suite, visit our website:  
<http://www.biz.konicaminolta.com/solutions/uds/index.html>

\*10 For detailed information on our release of the bizhub PRESS C1100 series, visit our website:  
[http://www.biz.konicaminolta.com/production/c1100\\_c1085/index.html](http://www.biz.konicaminolta.com/production/c1100_c1085/index.html)

\*11 For detailed information on the Production Printer 2015 PRO Awards, visit our website:  
[http://www.konicaminolta.com/about/releases/2014/1118\\_01\\_01.html](http://www.konicaminolta.com/about/releases/2014/1118_01_01.html)

## (2) Industrial Business

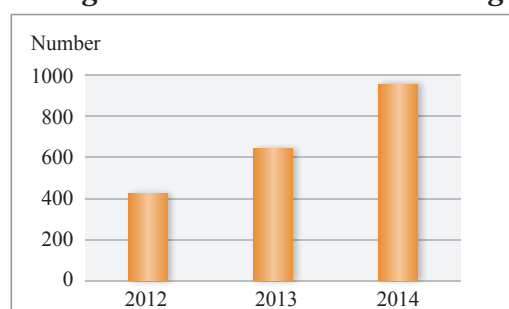
In the Industrial Business, we launched sales of organic light-emitting diode (OLED) lighting panels that hold great promise as a next-generation lighting source, given unique features unavailable in conventional lighting in terms of these panels providing a thin, lightweight and flexible source of surface lighting. In February 2015, brilliant OLED tulips created using some 15,000 OLED lighting panels were used to provide outdoor illumination at the Tulip Festival\*<sup>12</sup> held at the Huis Ten Bosch theme park in Sasebo, Nagasaki Prefecture (see photo at right). A Konica Minolta factory that began operating in autumn of 2014 became the first facility in the world to mass-produce these OLED lighting panels. The factory boasts very high standards of productivity due to its use of a roll-to-roll manufacturing method whereby a continuous coating layer is formed on a long sheet of film as it is wound from one roll to another.

We have already filed numerous patent applications in the technological field of OLED lighting, and accordingly have over 1,900 published patent applications in that domain worldwide as of the end of fiscal 2014. We are now focusing on obtaining intellectual property rights with respect to patent applications that we have filed in order to better support the launch of OLED business drawing on those patent applications. As a result, the number of patents held is also increasing steadily, surpassing 950 as of the end of fiscal 2014 (see right graph).

**Illuminated OLED tulips**



**Changes in Worldwide Patent Holdings**



## (3) Healthcare Business

In the Healthcare Business, we launched sales of our SONIMAGE HS1\*<sup>13</sup> diagnostic ultrasound system, which enables medical professionals to monitor images in real time while reducing physical strain experienced by patients undergoing treatment (see photo at right). The SONIMAGE HS1 diagnostic ultrasound system is the first product that we have developed in-house following our ultrasound equipment business integration with Panasonic Healthcare. With ultrasound probes, we are making use of our proprietary acoustic materials and also applying image processing technologies we have developed in the X-ray imaging domain. This is ensuring robust backup support for physicians in diagnosing medical conditions by providing them with much clearer visual images of tissue morphology and clear delineation of the fibrous structures of muscle and nerve bundles that are dozens to hundreds of microns in diameter.

As of the end of fiscal 2014, we have published over 1,200 patent applications worldwide in the field of ultrasound imaging technology, which includes those just described.

**SONIMAGE HS1**



\*12 For detailed information on the Tulip Festival, visit our website: [http://www.konicaminolta.jp/about/release/2014/1226\\_01\\_01.html](http://www.konicaminolta.jp/about/release/2014/1226_01_01.html) (Japanese)

\*13 For further information on the SONIMAGE HS1, visit our website: <http://www.konicaminolta.com/medicalusa/product/sonimage-hs1/>