

Purchasing copy, printing and scanning services in Zurich

Background

Zurich is the largest Swiss city with approximately 400,000 inhabitants and an annual public procurement budget of over €1.6 billion. Sustainability has been a specific target on the City's political agenda since 1998. In 2008, the [City's Sustainable Public Procurement](#) (SPP) policy was introduced, and since its introduction, Zurich has successfully carried out many SPP procedures. For example, in 2009, the City conducted a successful pilot which led to the procurement of 100% organic cotton shirts for the City's police force.

Procurement objectives

The ZOOM (Zurich Optimised Output Management) concept was first launched in 2008 as part of the City's IT strategy, which saw the introduction of standardised multifunctional devices in the municipal workplace. The location and specification of multifunctional devices was outlined through the ZOOM concept to maximise efficiency. Overall, the ZOOM concept estimated significant annual savings for the City.

In order to deliver even greater financial and environmental savings, in 2012 the Organisation and Informatics Department (OIZ) of the City of Zurich took the ZOOM concept a step further when they decided to switch from buying (or renting) machines to procuring an optimised Output Management Service from an external provider. As part of this procurement procedure, the devices were no longer the focus but rather the services (i.e. printing, copying, scanning, etc.). The City now only pays per printed page and no longer invests in hardware.

Both the ZOOM concept and this procurement were prepared by the OIZ together with the IT Conference Members, the Data Protection Officer, and the Environmental and Health Departments.

Criteria used

In terms of sustainability, the following requirements were made as part of the **technical specifications** for the Optimised Output Management Service:

- Paper consumption: Suppliers were required to include only recycled paper in their offer and set double-sided and black-and-white printing as a default.
- FollowMe-Printing: The supplier had to provide a so called FollowMe-Printing-Solution, which for all standard printing holds all output in a large encrypted storage. Nothing is printed until the user logs in on one of the printers and prints their output to paper. This was expected to avoid carelessly printed output which was even not collected at the printer, a feature which also solved many security concerns.
- Toner: On-time exchange of supplies by trained specialists had to be offered by the supplier to minimise toner-waste, ensure proper recycling of used supplies and avoid any health hazards to employees, while exchanging supplies themselves. In addition, it was a clear goal to avoid all the spread storage of constantly aging replacement supplies, which represented a considerable amount of bound capital.
- Energy saving: Printers were required to conform to given eco-labels for environmentally friendly products, and they had to be configured to go into stand-by mode or energy saving mode when they were not in use, in order to reduce energy consumption.



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- Reuse of equipment: As the supplier had to take over and pay at fair value for all the existing infrastructure of the City at inception of the contract, there was a big interest to reuse newer devices and get rid of outdated and energy wasting devices.
- Reduction of printers: The concept aimed at avoiding small and medium printers within offices and stipulated to put fewer, larger printers in corridors and hallways instead. This also supported some health concerns as explained below.
- Maintenance: The winning supplier was required to offer a high quality repair and maintenance service to ensure the optimal functioning duration and maintenance of all devices and infrastructure.

The following labels (or their equivalents) were accepted as evidence to demonstrate the sustainability of the products used in the service:

- Declarations/labelling regarding the energy consumption of the equipment
- Quality labelling
- Certifications for environmental and social/labour standards (ISO 14001, SA 8000)
- Eco-labels (Blue Angel, Energy Star, etc.)

Award criteria:

To ensure proper evaluation of these criteria, when comparing the received offers, the weighing was set to 35% of the total award criteria, even higher than total cost.

Results

The procurement of the optimised managed service has enabled the City to drastically reduce its costs and the amount of print materials it produces. Previously, the City owned over 100 different models of printers, photocopiers, scanners and fax machines and could reduce these from 5,500 to 3,600 units of only two brands and seven models. The energy saving from this reduction alone was 34%. Even larger environmental and financial savings were made as a result of the FollowMe-Printing-Solution. On average the City employees printing behaviour was generating about 120 million clicks a year, whereas now they are down on a level of 90 million clicks per year. The clicks refer to the number of printed pages, while the volume of paper is even lower, as double-sided printing is now the default printer setting. The effects of avoiding unwanted and forgotten prints, and even being able to delete duplicate prints at the printer, helped to achieve these substantial savings.

Environmental impacts

The ZOOM project has resulted in significant energy savings, by greatly reducing the number of printers in use. The savings are in the area of 340MWh/year, which is the equivalent of the energy consumption of 75 households.

Laser printers and copiers can have negative impacts on employees' health as they produce noise, even when in standby mode. Furthermore laser printers and copiers produce small amounts of dust, volatile organic compounds and ozone emissions. Although many modern devices are equipped with ozone filters, which reduce the levels of air pollutants, they do not entirely prevent them.

Many people respond to these emissions with headaches and other health problems, even when harmful emissions cannot be detected in the air. These dust emissions can be produced by the paper and from the toner and are most likely to be produced by older devices. Therefore suppliers were required to offer low emission devices and use toners with an environmental certification such as Blue Angel or equivalent. The supplier was also considered responsible if complaints should be received from employees as regards hygiene or occupational health issues. In addition, the concept required that the winning bidder place devices outside of offices whenever possible. This also helped to keep emissions caused by printing, as far as possible away from actual workplaces.

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Lessons learned

The standardisation of the service has helped the City of Zurich to improve both the quality and the environmental impact of the service offered. However, in order to achieve this, it was essential to include clear requirements concerning environment and health in the tender specifications. The biggest drivers for savings were the overall reduction of the devices and the FollowMe-Printing-Concept.

For more information, please see European [GPP criteria](#) for [Imaging Equipment](#).

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