
1


2

**"Many operators are keen to open their doors to show diners their operations. This can be attributed to the rise of the TV chefs"**


3


4


5


6

# Trans-Europe expression

Sustainability and transparency are two of the main trends driving European kitchen design. Jackie Mitchell reports

The need for energy efficiency and the reduction of carbon emissions is influencing kitchen design in Europe. David Bentley of The Russell Partnership says: "In the 1950s, kitchens were huge but now they are much smaller with improved equipment that uses less energy. This means a lower carbon rating and more space for a dining area. It's not just about everyday energy consumption and carbon usage, we have to look at the

**1. ON SHOW** Michael Flatow's design for the Hyatt Regency Dusseldorf
**2. SELF-SERVICE** Display by Frank Wagner of K-Drei
**3. ELECTRIC INDUCTION DREAM** One-piece wonder cooking suite by Stephen Arnold
**4. SUSTAINABILITY** An Ecoffee project by Norman Cescut for the Saadeddin pastry shop chain
**5. COOL KITCHEN'S** Peggie Ulle's energy-efficient work in Sweden
**6. BE PART OF IT** Jumeirah Frankfurt, another Michael Flatlow design where diners watch their food being prepared
**7. CORE OF STEEL** Frank Wagner's sparkling traditional design

embedded carbon as well. For example: how much carbon has a manufacturer used to produce the equipment?"

Bentley cited an example of making a car battery where nickel is produced in Canada and flown to China where the battery is made. The completed battery is then flown to the UK for use in a car. "The embedded carbon is high," he says. "Staff training is another issue. You might have an eco-friendly oven but if it's left on all day empty, it won't save energy. Equipment also needs to be serviced regularly to ensure it remains energy-efficient, the same way as a car."

As a way to further reduce energy costs, says Bentley, manufacturers are teaming up. For example, an induction company is working with a refrigeration company to produce a single unit induction hob with a fridge underneath, due to be launched in 2013.

Induction cooking has come into its own because it saves energy. Stephen Arnold FCSI from Humble Arnold Associates points out the new induction hobs with slide control surface from Menu Systems, where the pan can be moved across the surface for greater flexibility. "The power delivery from induction has greatly improved," says Arnold, "and there is wider acceptance of its use in production and finishing kitchens. The kitchen environment is improved by the reduction in radiated heat."

Michael Flatow FCSI from Flatow & Drews Consulting in Germany adds: "In Germany, Michelin-starred chefs are working on induction technology whereas French chefs still prefer gas." Flatow feels that European kitchen design is affected by the spiralling real >

## AROUND EUROPE

### Sweden

In Swedish hospitals, the kitchen must be kept at an even, cold temperature, says Peggie Ulle FCSI from Storkoksbyran "as the food is chilled and portioned and is then microwaved in the ward kitchen. A special ventilation system is installed in the kitchen to keep the food cold and special chilled trolleys are used for transport. They are insulated so the temperature doesn't change more than two degrees in an hour. We are involved in the whole process from the food being prepared to being moved to the wards."

The 'open' kitchen, where customers can see the kitchen in operation, is alive and well in Sweden as in the UK. Peggie Ulle says "Most restaurants in Sweden have open kitchens. Now consumers want to see all the kitchen staff working in smart clothes, preparing the food."

### Germany

In Germany, kitchens are returning to the old traditional designs, "although we're getting a little more space now than in the last decade," says K-Drei's Frank Wagner FCSI. "So it's back to conventional design with proper preparation areas for vegetables, meat and fish and a hot and cold section. Every country in Europe has a different culture and history of the kitchen. The French are more open to using different technologies and have bigger kitchens than in Germany."

Wagner also explained that in late 2012, 40,000 German schoolchildren and their teachers caught a virus from frozen Chinese strawberries, which demonstrated the need for proper school kitchens. "The frozen strawberries were not properly cooked in a dessert so now schools must have proper kitchens to ensure it never happens again."

### Austria

Garry Nokes FCSI from GWP Ltd comments "Many operators are keen to open their doors to show diners their operations. This can be attributed to the rise of the TV chefs. The general public are more aware of what happens in professional kitchens and want to see it."

He is currently working on a hotel restaurant in Vienna, Austria

estate prices in European capital cities. "As a result, back of house areas are limited in size so kitchens have to be designed smaller and we have to find new technology to produce the best results," he says.

"Kitchens in the German-speaking part of Europe are now using high efficiency pressure cooking equipment such as pressure boiling pans and pressure tilting bratt pans manufactured by ELRO. The equipment in modern European kitchens should also be multifunctional so it takes up less space, such as the FlexiChef by MKN. The advantage of this equipment is that it reduces the time of the cooking procedures, using less energy and hence saving money."

Flatow also mentioned the Intelligent Peak Demand Control Systems by Sicotronic as a further way of saving energy. "This system, which connects to kitchen equipment, automatically cuts off the power when not required." He explains: "For example, the system interacts with a deep fat fryer and checks and evaluates the temperature. When the temperature goes down, for example while filling the fryer with frozen fries, it does not cut out. When the temperature reaches its peak and stays constant, the system cuts off the power for a few seconds."

A similar approach is also being used by hood manufactures for extraction canopies. Flatow says: "With the intelligent hood extraction system, a sensor will detect if any cooking equipment is in use. If not, it will reduce the extraction – if there is cooking, it will turn it up again."

"Sustainability is a must everywhere," says Norman Cescut FCSI from Italian company Desita. "Every new concept is developed around principles of sustainability." His company, which specialises in designing foodservice outlets and retail space, has produced a new concept – Ecoffee, which designs and develops eco-friendly foodservice outlets. Ecoffee projects use furniture made from recycled and recyclable materials, and eco-friendly lighting and bioplastics that use corn starch and biodegradable polymers. For example, Cescut recently designed the new Saadeddin pastry shop in Riyadh, Saudi Arabia. Cescut says: "The Ecoffee guidelines applied to this first pastry shop will be used in all the other chain branches, making it a point of reference for sustainability projects in the area."

**"Sustainability is a must everywhere. Every new concept is developed around those principles"**

For food presentation, the trend is to use drop-in cabinets instead of old-fashioned display cabinets. "It is cheaper and ensures better food quality as the food is regularly replenished," Cescut says.

Arnold mentions a similar trend in the UK with 'jewel case' displays for pastry goods, chocolate and dessert. "It's like a jewellery shop with boxes on counters. Products are put in dishes on top of the boxes making an eye-catching display," he says. "Lighting systems and fittings have become more compact, while light colour and intensity has improved. This has transformed lighting in food and beverage display equipment."

According to Ken Winch FCSI of Sefton Horn Winch (SHW), there's more use of plain white surfaces rather than stainless steel cladding. "Grout in tiles get dirty, but with sheet material there's no grout required. There's also more use of Corian and chemically produced materials which are solid and don't scratch." ■

where diners will be sitting around the open kitchen. "Everything will be on show," he says.

In open kitchens equipment has to be more flexible.and incorporate several cooking methods. For example, MKB's FlexiChef multi-functional bratt pan, which has four different temperatures in one pan." The bratt pan's ZoneControl has four zones which can be individually heated so various cooking processes can take place within the unit.

For open kitchens, solid fuel and charcoal-fired cooking appliances, such as grilling stations, fire pits, roasting and baking ovens are popular. Arnold says: "Josper charcoal ovens are widely used in many parts of Europe as they are suited to many concepts."

While most European kitchens are becoming smaller and compact, they are also embracing new technology to become more energy efficient and eco-friendly.

### UK

Sefton Horn Winch (SHW) has designed all the food and beverage facilities at the Café Royal hotel in Regent Street, London, where David Chipperfield Architects has undertaken a major restoration of the original interiors dating from the 1860s and 1930s to create a dazzling contemporary 160 room hotel.

For Winch, the centrepiece of the work is the new carbon dioxide ($CO_2$) refrigeration concept, produced by CCS and Iglu Cold Systems. The hotel's 15 cold rooms and 32 undercounter fridges operate using a remote $CO_2$ pack system.

"The Café Royal is the world's first hotel to run off $CO_2$ as a refrigerant," says Winch. "By putting in the $CO_2$, it achieves first class Bream rating. It's never been used in commercial catering before. It also means lower running costs. A hot water recovery system is attached to it, so the waste heat from the refrigeration units is removed and used to supply hot water, so we worked closely with CCS to integrate the system."

The hotel also has a vacuum waste storage system which sucks the waste away from each of the floors.

"In the main kitchen, we made good use of the space," says Winch. "There are no electrical, gas, water or drainage surfaces visible. It's easy to clean, made of stainless steel with ceramic wall and floor tiles. Equipment includes an Ambach cooking suite, Rational cooking ovens, a MKN Flexi-Chef bratt pan and a Meiko glasswasher. In the staff restaurant the self service counter, tables and seating are made of white corian."