Press release

BOSCH

Sensors enhanced by artificial intelligence: Bosch introduces the first oven that can predict when a cake will be done based on the specific recipe

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- ▶ Artificial intelligence offers consumers new household experiences
- ▶ Series 8 accent line built-in ovens with Home Connect and a PerfectBake plus sensor or PerfectRoast plus meat probe can now predict when food will be ready
- ▶ State-of-the-art sensor technology from Bosch delivers perfect results when baking and roasting
- ▶ Machine learning supplements sensor technology with reliable planning capability and greater independence

Munich, Germany. Artificial intelligence (AI) is becoming more and more capable. Bosch is now drawing on the benefits of AI for roasting and baking. Europe's number-one household appliances manufacturer is releasing its first Series 8 sensor-supported oven that predicts when baked goods and roasts will be done based on the specific preparation of the food in the oven. Bosch's patented sensor technology already ensures perfect results, thanks to the PerfectBake sensor and PerfectRoast meat probe: Machine learning now adds a new dimension. The connected oven learns based on a growing volume of anonymised data from a large number of baking and roasting processes. Not only does it use high-performance sensor technology to deliver perfect results, it also becomes progressively smarter about when a dish is fully cooked based on the specific recipe. The more households that use ovens equipped with artificial intelligence, the more accurate the predictions for individual foods becomes for the user's own oven. The key is the digital connection via Home Connect. In June 2020, Bosch added artificial intelligence to all Series 8 accent line ovens equipped with Home Connect and PerfectBake plus or PerfectRoast plus. By autumn, this product range will be expanded to include ovens with a microwave function.

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Example: Baking a tarte flambée using a system that learns

When the new Series 8 oven with AI is used to bake a tarte flambée, for example, perfect results are guaranteed by selecting the right PerfectBake plus sensor programme. As an added bonus, the oven uses AI to let the user know when the tarte will be ready to enjoy. As the tarte is baking, the measured values acquired by the PerfectBake plus sensor are continually sent via Home Connect to a cloud computing system. There the data is plugged into a forecasting model that was created using machine learning based on anonymised data from previous baking processes in the tarte flambée category. This forecasting model is applied to the current process every 30 seconds so that the end point of the baking process can be sent to the oven. With the database constantly growing, the self-learning system ensures that the accuracy of its predictions quickly increases. In the future, this will give consumers even more opportunities to tailor recipes to their own preferences and flexibly plan their time at home. That's because they'll even receive reliable predictions for a tarte recipe that's been adjusted to suit their personal taste: for example, a tarte with a higher moisture content based on the topping selected, or with a different dough consistency. The oven itself operates exclusively on the basis of its user's settings and the food selected in each case. The PerfectBake plus sensor and PerfectRoast plus meat probe can also continue to be used completely independently of AI.

Artificial intelligence ushers in a new era for home appliances

Bosch is the first household appliance manufacturer on the German market to integrate artificial intelligence into its sensor-controlled, built-in ovens. These appliances provide custom assistance to consumers in their everyday lives while also making their lives even easier and more convenient. For managing director Harald Friedrich, the ovens with AI are ushering in a new era of customer-centred technologies. "Artificial intelligence in household appliances can contribute to meeting peoples' personal preferences and needs more successfully. With the combination of successful sensor technology and artificial intelligence, we've reached the first milestone. We're now working strategically to accelerate this development and advance the many opportunities it brings."

* Source: Euromonitor, sales, 2019

Press photos: 8907_01 – 8907_04

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The name Bosch is known worldwide as a symbol of excellent quality and reliability. For more than 85 years now, its home appliances have also honoured this claim: Bosch is Europe's leading household appliances manufacturer. Its products are based exclusively on the real requirements of modern households. Thanks to trendsetting technology and surprisingly simple solutions, they effortlessly achieve perfect results and simplify everyday life. In addition, high quality, precisely finished materials and a timeless, internationally acclaimed design ensure unmistakable quality and sustainability. A recognised high service quality cements the trust of the user in the brand and underpins the Bosch guiding principle, "Invented for life".

For more information, visit www.bosch-home.de.