

How AI is contributing to the kitchen of the future

Scott Duncan, Unox UK



Menu
variety

consumer expectations

Sustainability
Food allergies

Foodservice

Challenges

Cross-country consistency

Skills People shortage

Globalisation of menu

Food waste

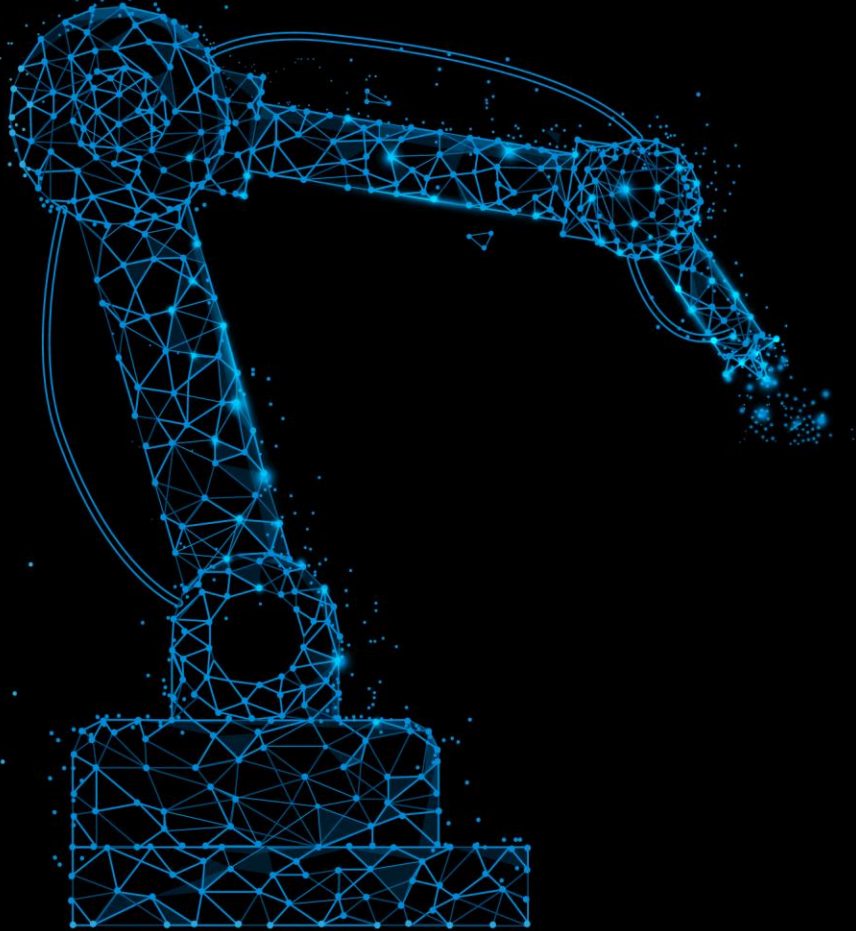
Robotics & AI







Robots



Sensors



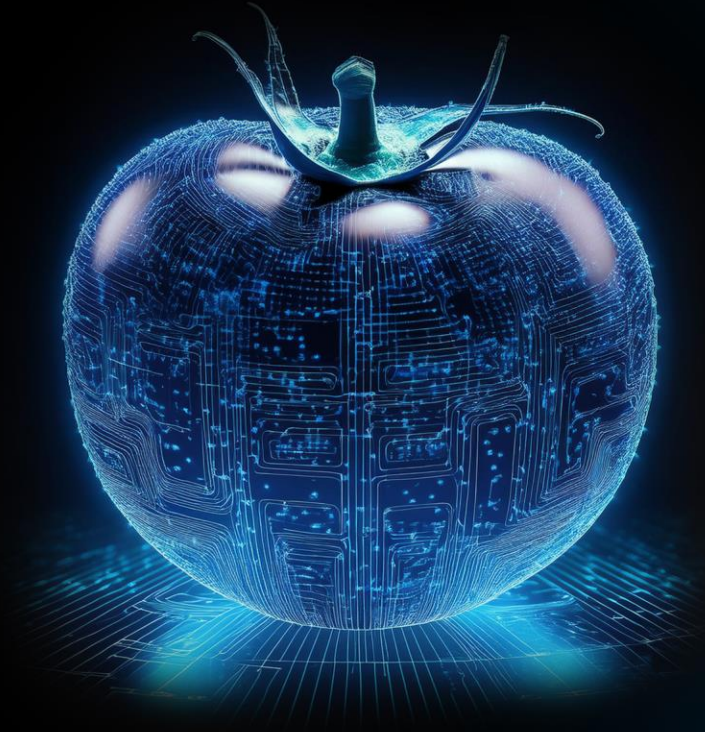
Artificial
Intelligence



Actuators

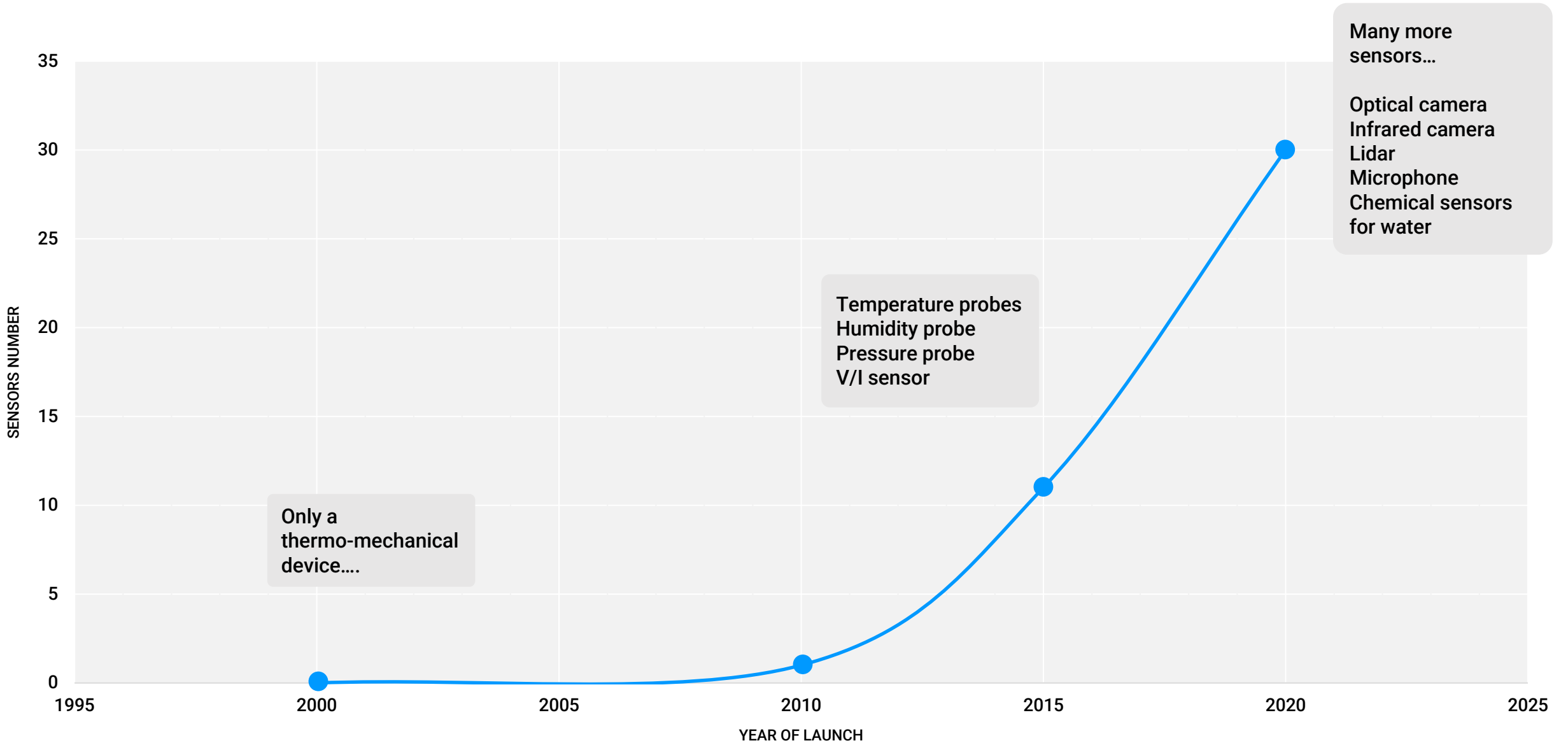


How does a sensor work?





How many sensors are in an oven?





**What do we usually
measure when cooking
food?**

Temperature?





**What if sensors could
measure humidity,
texture, colour, smell or
“doneness” of food?**



A hand holding a carrot with a digital grid overlay, symbolizing food digitalisation. The background is dark blue with glowing lines and particles, suggesting a digital or futuristic environment. The text "Food digitalisation" is centered in white, bold font.

Food digitalisation



Machine Learning

Unsupervised Learning

Clustering

- Target Marketing
- Customer Segmentation
- **Recommender System**



Dimensionality Reduction

- Meaningful Compression
- Big Data Visualisation
- Structure Discovery
- Feature Elicitation

Reinforcement Learning

- Robot Navigation
- Learning Task
- Skill Acquisition
- Game Ai
- **Real-time decisions**



Supervised Learning

Classification

- Identity Fraud Detection
- Diagnostics
- Customer Retention
- **Image Classification**



Regression

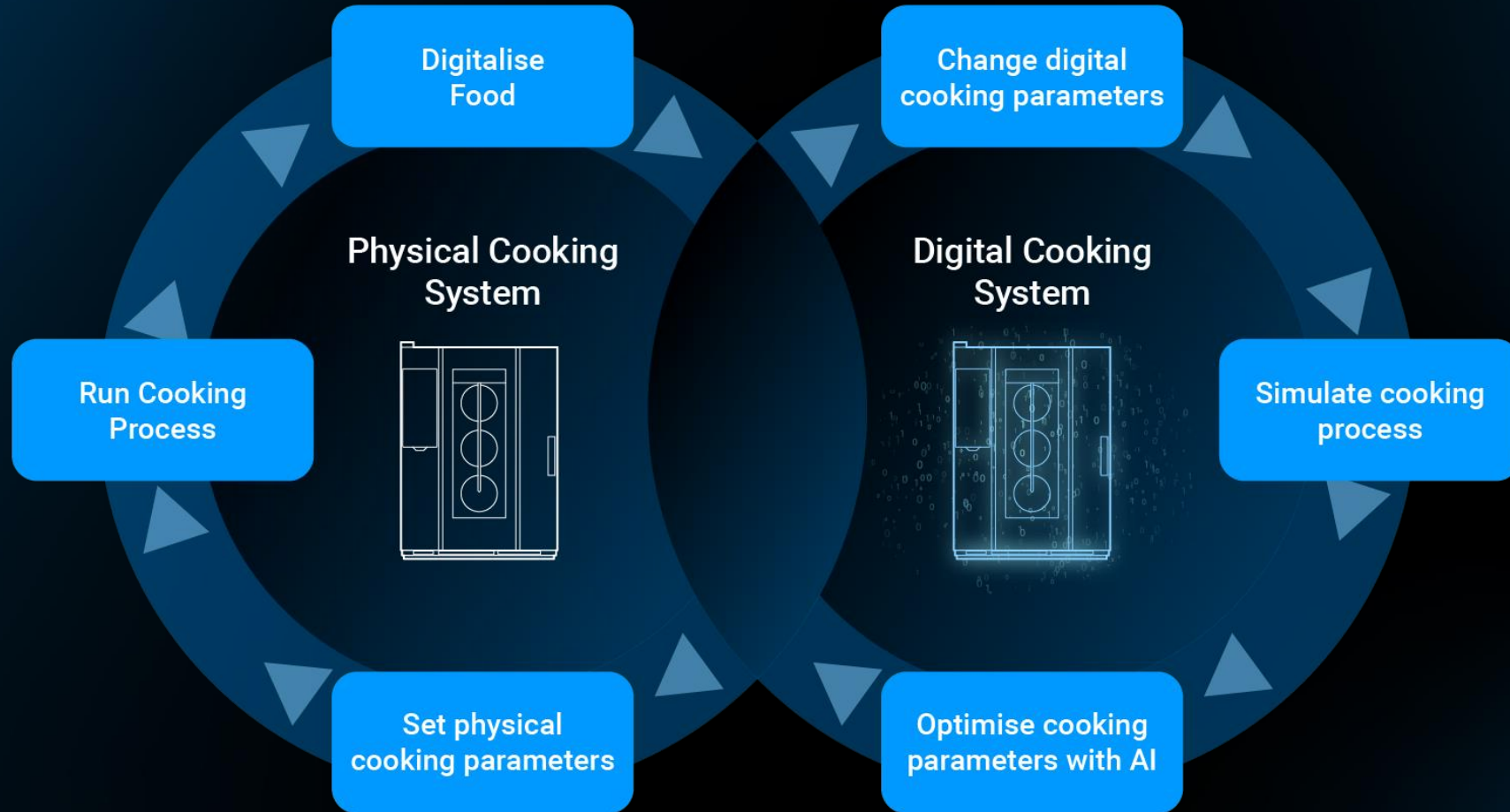
- Population Growth Prediction
- Estimating life expectancy
- Advertising Popularity Prediction
- Weather Forecasting
- **Market Forecasting**



What is Deep Cooking?



How do we envision the future of cooking?





Any Questions?

