### Empowering Life with Technology A User-centric Path to Innovation & Progress

—AWE Report on Industry Trends

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### Introduction

Amidst great anticipation, AWE2023 was held at Shanghai New International Expo Centre from April 27 to 30, marking its return after a two-year hiatus. With 13 halls across the 150,000 m<sup>2</sup> venue, the event saw 350,000 visits and gathered over 1,000 exhibitors, setting new records across the board.

What truly makes AWE2023 great is the high-tech products brought by more than one thousand exhibitors. With their best offerings, these top players turned the event into a massive platform showcasing future life scenarios, paying tribute to a better life.

The exhibitors impressed us with their fantastic products developed during the last two years, which signal the future path of the industry, as well as the lifestyle trends of tomorrow. Of the many original technologies and products that appeared at AWE2023, most revolve around user demands, providing innovative solutions.

AWE2023 fostered a culture of innovation that allows innovators to take pride in what they built. Today, Chinese home appliance brands and manufacturers are exploring user-centered innovation, as they offer versatile solutions.

Two major factors have motivated the industry's pursuit of user-centered innovation.

First, the diverse, multi-tiered user demands in China are the source of innovation for home appliance and consumer electronics brands. From mere imitation to breakthroughs in specific areas, and then to scalable innovation capabilities, the key lies in innovating around user demands. Second, home appliance and consumer electronics companies have become mature innovators. Committed to constant innovation based on user demands, they continue to upgrade their products, instead of stopping exploration when there is no positive market feedback.

In light of these two factors, we believe that the industry's future development will not be limited solely to its own breakthroughs and innovations. As mentioned above, thanks to active users with varying demands, companies have evolved into sophisticated innovators with sound strategies. This will transform the industry into one of the best platforms for cross-sector technological implementation.

As business players continue to expand their horizons and explore usercentered innovation, we have noticed that the AWE platform, driven by the above trend, has embraced other sectors. Huawei, for instance, has become a major exhibitor at AWE, showcasing their brand-new Whole House Smart Space 3.0, smart experiences covering both the home life and office routines, as well as the HiCar people-car-home connectivity solution for all scenarios. Recognizing the potential of the home appliance industry, sensor and chip makers also attended AWE2023 to seek breakthroughs and opportunities for cooperation. Automobiles, which now come with built-in new technologies and consumer electronics, are no longer just a means of transportation but have fostered in-car living scenarios.

This is why we are convinced that in the future, as the Chinese home appliance and consumer electronics industry embraces more cutting-edge technologies through user-centered innovation, our at-home experiences will be significantly enhanced.

At AWE2023, we summarized ten major industry trends for your reference. All these trends will reshape our ways of life.

Trend 1: From Flashy Technologies to Smart Daily Applications

The intelligence showcased at AWE2023 is no longer an abstract collection of advanced technological concepts, nor is it simply a flashy display that makes people wonder whether it is smart or silly. Putting people first, intelligent technologies are increasingly integrated into user demands, making intelligent products more versatile, convenient, and interactive.

- Smart products. Intelligent products have become smarter in terms of specific functions.
- Smart scenarios. Smart solutions are provided for real-life scenarios.
- Whole-house smartness. Live the future in smart homes.



With its six-minute rapid mapping capability, zero-intervention cleaning process, and user-friendly operations, DEEBOT T20 Pro Plus caters to a wide range of cleaning needs across multiple scenarios.

Powered by its advanced cognitive model SparkDesk, iFlytek Smart Recorder incorporates two 10mm directional mics that extend the pickup range to 15 meters. Besides, the product transcribes an hour-long recording in just five minutes with an impressive accuracy rate of 98%.





Haier Smart Home Brain integrates thinking,decision-making,and emotion into a unified platform. Consisting of the Smart Home Brain platform, three clouds (AI Cloud, Big Data Cloud, and IoT Cloud), and a whole-house smart perception system, it is able to understand, perceive, make decisions, and adapt, providing users with a seamless comprehensive smart home experience. Huawei Whole House Smart Space 3.0 is a solution built upon a reliable wired PLC and a smart host that's available even without Internet connections. Providing smart homes with a stable network, Whole House Smart Space 3.0 encompasses ten subsystems that include audio and video entertainment (wholehouse music), security, shading, lighting, water control, home appliances/furniture, and more.



Trend 2: The Return to Core Product Value Powered by Technological Upgrades

AWE2023 presented a major trend: products are returning to their true value. After years of development, companies and researchers are reconsidering the original intentions behind the development of these product categories, as they attempt to improve and innovate core functionalities with modern technology to meet real user demands.

This is what core product value looks like:

TVs provide family entertainment.

Refrigerators keep our food fresh for a longer period of time.

 Washing machines clean clothes more effectively without causing damage.

Air conditioners deliver indoor comfort.

• Kitchen appliances create delicious meals while enhancing dietary nutrition.

"Horizontal expansion" and "vertical upgrade." Products should
satisfy more user demands while upgrading existing functions.



98U8H is Hisense's latest offering, which is based on its ULED X model. With the industry-beating configuration of 6,000 dimming zones, 98U8H offers precise brightness control, XDR display that reaches a peak brightness of 2,000 nits, a 144Hz native high refresh rate, and a custom-made obsidian screen, enabling exceptional home viewing experiences.

Casarte Designer Series Refrigerator uses intermediary sensors to identify the freshness of stored food. Users can take out a label from the refrigerator door and place it with the corresponding food in the storage space; the door will then identify the freshness of that particular food and provide real-time reminders.





At its core, Gree Zhizun Series Air Conditioner features a separate cooling and heating distribution system with zero-temperaturedifference. Combining the properties of air and the patterns of natural convection, it provides comfortable cooling with upward airflow and cozy heating with downward airflow. This air conditioner enables vertical temperature differences of less than 0.3°C between the cooling and heating areas, delivering indoor comfort. Panasonic Household Washing Machine ALPHA NA-G1S features a bionic airbag that simulates handwashing, static washing, and smart intensity adjustment, which eliminates rolling, friction, tangling, or deformation, providing delicate care for delicate clothes.





**FOTILE Smart Range Hood is** an unreleased product that features improved smoke absorption with its slant ventilation design. The 19inch screen is retractable and controlled through FIKS OS, the brand's smart kitchen system, allowing users to view recipes, watch shows, and operate the hood. Moreover, the product also supports smart voice control and can measure pot or food temperatures (see the picture on the right).



Joyoung B1 Light Sound Food Blender incorporates a brushless motor that reduces noise, which is commonly used in the field of aerospace. Compared with regular blenders, Joyoung B1 Light Sound Food Blender produces noise at an average level of 48.8 decibels when making soy milk, with a 27% reduction in sharpness.

Trend 3: Digital Life Brought by the Leap from Real to Virtual

AWE2023 provided a great opportunity for visitors to get immersed in a wide range of digital real-life scenarios, covering large-scale applications like smart city, smart healthcare, smart education, and autonomous driving, small innovations such as VR/AR, wearables, smart home appliances, and service robots, as well as AI-powered technologies that include smart voice control, gesture control, and image recognition.

Displays are ubiquitous in the digital age.

• The line between the real and virtual worlds is becoming increasingly blurred.

• Digital technologies are reshaping human-machine relationships, offering more convenient and smarter interactions.

• Data from smart products is shaping our digital profiles.

The commercial sector has showcased large-scale digital scenarios.



89-inch Samsung MicroLED TV, featuring the highly anticipated next-gen display technology, made its global debut at AWE2023.

Skyworth Pancake 1C, the first all-in-one VR headset with adjustable diopter in China, weighs 189g without headstrap and 436g with headstrap, offering a maximum thickness of 32mm.





Thunderbird Air 1S XR Glasses, powered by the BirdBath+MicroOLED solution, deliver an immersive viewing experience equivalent to a giant 130-inch HD screen.



Samsung Galaxy
Watch5 Pro, equipped
with Samsung's
BioActive Sensor,
integrates two health
sensors that focus on
bioelectrical impedance
analysis and optical
heart rate sensing.

Hisense Precision Medical Equipment showcases the new era of high-dynamic intracavitary display.



### Trend 4: Smart Applications Penetrating All Fields

Many leading players in the home appliance and consumer electronics industry are striving to break boundaries and expand their business coverage on a strategic level. They are no longer just bringing products to consumers but also a brand-new attitude toward life. At AWE2023, we witnessed cross-industry applications spanning areas such as home appliance, automobiles, outdoor equipment, esports, IP, mobile phones, education, and fashion trends with Chinese cultural elements.

- ♦ Automobiles.
- Mobile phones.
- The boom of camping is driving the trend of "camping electrification".
- Companies are venturing into the medical field.
- Collaborations across industries.
- ♦ Esports.



AITO Wenjie M5 Smart Driving Edition offers "mobile comprehensive smart home", through the combination of Huawei's advanced intelligent driving system ADS 2.0 and HarmonyOS 3.0 smart cockpit, along with all-new software and hardware such as spatial audio, HUAWEI MagLinkTM interface, PC-vehicle connectivity, and in-app automatic navigation (seamless flow from mobile phones to the car machine).

Huawei's foldable Pocket S features a super-sensing imaging system that balances the capabilities of multiple lenses to capture more details. It also comes with a 40-megapixel super-sensing main camera that uses the industry-beating RYYB sensor, which allows it to deliver portrait shots comparable to those taken by professional cameras.





Miji To Go, a camping set from the German brand Miji, includes the Miji Gala I 900 white camping stove, a bamboo kettle, cooking cups, silicone oil paper, a soup spoon, and a square spatula.



Airmate showcased a split air conditioner designed for tents. With a camouflage and lightweight design, it is perfect for camping enthusiasts.





Aucma exhibited its latest achievements in the field of biomedicine, including the ARKTEK passive vaccine storage box developed in collaboration with the Bill & Melinda Gates Foundation's Global Good program and its in-house developed Portable Cryogenic Cryotherapy Chamber, which is the first of its kind developed by a Chinese brand.

In addition to the basic model, the Yoose MINI shaver also comes in themed sets like the Bounty Hunter and Space Travel, as well as a set co-branded with artist Keith Haring.



TCL CSOT introduced a 49-inch 120Hz LCD monitor with variable curvature, the world's first to incorporate LCD variable curvature technology. The LCD screen, with a 120Hz high refresh rate and variable curvature, can be driven by buttons and remote control. The maximum curvature could reach R1500.

Trend 5: From Product Packages to Scenario-specific Applications, Capturing Users with Hardcore Features

Home appliance packages are made to captivate consumers by offering unique designs that cater to different household styles. However, over the years, as we look beyond the appearance of packages, we have seen a profound transformation in the nature of these products, as brands offer distinct product features tailored to different user groups and specific scenarios.

• Companies now work with multiple partners to create multi-brand solutions covering diverse scenarios.

◆ Top players have developed a wide range of consumer scenarios leveraging their extensive product portfolios.

• Brands are showcasing personalized scenarios through innovative niche products.

Business scenarios.



Haier Sanyiniao Scenario Brand presented a smart model room that encompasses five solutions, covering daily scenarios such as the entryway, living room, balcony, kitchen, bedroom, bathroom, and home theater.



Samsung's Bespoke Home and Bosch's accent | line carbon black collection best represent the shift from product packages to application scenarios.



Bear Electric Appliance showed us a fun, immersive experience of various exquisite lifestyles. Showcasing scenarios like kitchen, camping, mothers & babies, home, office, and personal enjoyment, the brand presented a creative and refined way of life.



Sony's BRAVIA solution for flight information display/Sharp's commercial interactive display boards.

### **06** Trend 6: Embracing Green Lifestyles

Green technologies and energy conservation have long been a focus of the home appliance and consumer electronics industry. In recent years, China established carbon peaking and carbon neutrality goals, driving green and low-carbon technologies and solutions to new heights. With years of industry-wide efforts, eco-friendly and lowcarbon lifestyles are becoming increasingly accepted by the public.

Making concerted efforts to promote green and low-carbon development has become the consensus of the entire industry chain.

◆ As energy-efficient products continue to grab market shares, the consumption of non-renewable resources like natural gas and water has seen a marked decrease.

Renewables and clean energy technologies have become more prevalent.

• Efforts have been made to explore smart energy management.

• Embracing the circular economy and adopting green lifestyles are key to achieving low-carbon development across all sectors.



Highly R290 Compressor Series includes compressors for heat pump water heaters, heat pump dryers, dehumidifiers, and air conditioners & portable air conditioners.





Panasonic Centrifugal Washing Machine with Purified Water separates wastewater from laundry using a centrifugal pump, removes any lint, and recycles clean water, enabling water recycling during the washing process.

TCL CSOT AM Mini LED Notebook Module features TCL's latest Mini LED display technology and offers a million-to-one contrast ratio through local dimming, comparable to that of OLED. Compared to OLED, Mini LED that comes with LCD offers a peak brightness level that's over two times higher and reduces power consumption by 30% to 50% in various display scenarios.



Gree Zero Carbon Source Air Conditioning System brings together advanced technologies such as vapor compression refrigeration, photovoltaic direct-drive, vapor cooling, and mechanical ventilation. It makes efficient use of renewables (solar) and natural cooling sources (air and water). The system automatically runs one or more of its built-in operation models, including vapor compression refrigeration, vapor cooling, and ventilation, based on indoor meteorological conditions, providing an energy-efficient air conditioning solution that delivers real comfort.



HIGA Door Seal for Singlecylinder Washing Machines is made of TPEs (thermoplastic elastomers), meaning that it does not require vulcanization and can be recycled. Moreover, the product is non-toxic, odorless, and meets various environmental requirements.



Miele Laundry Capsules use 100% recyclable plastics and do not contain microplastics, reducing their impact on the environment.

CERAN Luminoir, a glass-ceramic from SCHOTT, does not require the use of optical filter coating and reduces plastic consumption in the production process. It does not contain toxic heavy metals such as arsenic and antimony, and all broken glasses can be recycled.



Trend 7: The Shift Towards Health Management in Product Development

In 2023, health has become a key theme of innovation for almost all products. In the realm of health-focused innovations, the industry is striving to deliver new value to users by transitioning from specific health products to interconnected home health management.

Demands for health are fully embodied in product features and technological R&D.

◆ AWE2023 has presented initial innovations in the deep integration of health demands and home appliances. Health-focused appliances have evolved from a niche category into a multi-scenario product hub that enables smart interconnections and can be customized on demand.



Haier Boguan Series Refrigerator features an Al-powered smart clean system that actively eliminates bacteria and odors. Additionally, by actively sensing the odor of food 24 hours a day, this product combines five functions, i.e. sterilization, odor removal, mildew prevention, pesticide residue removal, and virus inactivation, to ensure more thorough sterilization and provide real-time visibility of the sterilization status.

Ronshen Pure-Infinity Refrigerator incorporates the upgraded IDP i-Smell smart sensing and sterilization system, which monitors the air quality inside the refrigerator in real time. It intelligently identifies and eliminates harmful odors in the refrigerator, offers five powerful odor removal and sterilization modes, and provides real-time air quality alerts.

Panasonic AI INCLEAN Dishwasher, with its nanoe<sup>™</sup>X technology, significantly extends the storage time to 720 hours.





Tineco CHORUS Floor Washer features the Extrawash self-cleaning system, which comes with a unique roller brush cover lifting technology that enables automatic inner wall cleaning by lowering the roller brush cover. Furthermore, its bidirectional self-cleaning technology allows for thorough cleaning. The two-way centrifugal drying keeps the brush dry and fluffy to reduce bacterial growth. This, coupled with UV sterilization, effectively extends the service life of the roller brush.



Rinnai Electric Water Heater - Soft Water Solution leverages the IES (ion exchange softening) technology to achieve a softening rate of 99.7%. It efficiently adsorbs hardness ions such as calcium and magnesium in water, providing comprehensive care and protection for your delicate skin.



Haier Sanyiniao Bathroom Scenario integrates comprehensive health management functions into bathroom products.



With its Central Air Conditioner AI Smart Home App, Hisense presented its active healthy air management system.

#### Trend 8: Meeting Individualized User Demands Across All Segments

In a niche economy with all kinds of user communities, in addition to quality, consumers increasingly focus on individual experiences and are willing to pay for products offering unique, creative features.

At AWE2023, many brands showcased innovative products tailored to a wide range of user groups, covering Generation Z, the elderly, mothers and babies, singles, travelers, and pet owners.







Leader made its debut with an all-new brand image that targets Generation Z consumers. Aiming to become the life companion of young consumers, the brand provides home solutions tailored to various scenarios. Leader intends to grow together with Generation Z, with the focus transitioning from one-way communication to shared growth and further to companionship.



NORITZ Gen-Z Liuguang Series Water Heater, in addition to practical functions, features an aesthetically appealing experience, offering seven luxurious and romantic colors as design options.





Panasonic's elderly-friendly bathroom mirror and sink

Haier Elderly-friendly Bathroom is designed to help elderly individuals with limited mobility stand up and sit independently. In addition, the seat height can be adjusted based on the user's height and physical condition, which reduces the pressure of standing and getting up.



FOTILE water purifier designed for mothers and babies uses NSP selective filtration technology to efficiently remove heavy metals such as lead, cadmium, hexavalent chromium, and arsenic from drinking water while retaining beneficial minerals like calcium, magnesium, sodium, and potassium.



3i Smart Odor Control Cat Litter ► incorporates a safe, ergonomic shovel-like structure that brings enhanced comfort to cats. With the help of smart AI recognition, it accurately identifies multiple cats, monitors their health, and automatically generates health reports.

CHANCOO Juicer Maker features a compact, elegant design. Equipped with a powerful 300W copper motor enabling 22,000 RPM, it cuts ice like paper and makes healthy beverages like fruit and vegetable juice, smoothies, sorbets, and shaved ice in three simple steps within 10 seconds.





 Portable Electric Kettle, evolving from the previous upright design into a horizontal model, has become easier to carry. Additionally, it now provides a larger heating area to improve stability.

Trend 9: Integration and Reorganization to Incorporate More Technologies

Home space is always limited, but that couldn't stop our consistent pursuit of a better life. People desire refined living arrangements with various appliances. However, the limited living space couldn't accommodate the increasingly versatile home appliances. Driven by this demand, AWE2023 presented a clear trend of integration.

The idea of appliance integration mainly involves the combination of similar functions and the reorganization of different categories and relatively independent appliance units.



Casarte Nebula Air Conditioner offers multiple functions, spanning air conditioning, humidification, purification, disinfection, air circulation, formaldehyde removal, and dehumidification. It also uses a twin-tower structure: the Function Tower provides cooling or heating air, whereas the Health Tower utilizes water and oxygen to humidify and sterilize the air. This unique design delivers year-round usability with a single machine.



Gree Jinglifang Air Purifier combines dehumidification, humidification, purification, and clothes drying into one device.



LEXY Sirius S9 Floor Washer, with its 400W strong suction, meets three major cleaning needs: floor washing, carpet vacuuming, and handheld mite removal.



Panasonic Air Purifying Dehumidifier brings together dehumidification, purification, and cloth drying.



Marssenger Integrated Stove is a prototype integrated stove that comes with a stand mixer, offering 36 cooking features in one appliance.





Donlim Steam Pot combines the functionalities of a steam pot, health pot, electric steamer, and water bath stewing device.

Haier presented a cylinder washing machine that also features a clothes dryer, a shoe washer, and a sweeping robot.



ARROW Domino Mirror Cabinet provides ample storage space while allowing users to choose additional combinations, covering cosmetic refrigerator, touchless soap dispenser, and toothbrush sterilizer, based on their lifestyle preferences.

#### Trend 10: Unveiling the Beauty Within, Design Aesthetics Beyond Appearance

At AWE2023, different categories of home appliances and consumer electronics showcased their pursuit of international design aesthetics. As they become more sophisticated, the products impressed us with delicate craftsmanship in terms of texture, material, touch, and lighting details, creating visually captivating experiences. Breaking traditional boundaries and transcending mere appearance, the most impressive works resolved structural design challenges to improve product performance, unveiling the beauty within.

- Design aesthetics embodied in the home experience.
- Captivating visual designs.
- Designs that capture the eyes as well as the mind.
- Enhancing performance through design to spearhead innovation.



Miele K7000 Built-in Refrigerator & Wine Cabinet features a stainless-steel door with a handle-less design, allowing users to open the door with a gentle push. The freezer also offers soft-closing and auto-closing features. With the Miele APP and voice control via Tmall Genie, users get to control the refrigerator remotely.



Electrolux Air Purifier adopted fabric and PU materials.

Casarte counter-depth refrigerator sparked a trend of counter-depth designs. With a 90° door stop and front-loaded heat dissipation, the refrigerator doesn't stick out from the edge of the kitchen counters and seamlessly lines up with the end of the cabinets, fitting in nicely with modern kitchen designs.





Samsung's Frame TV, designed like an art frame with customizable edges (mostly wooden), is a striking decoration in any living space.



Product designs now focus on cultural expressions at a deeper level. Examples of cultural designs include Haier's Sanxingdui-inspired refrigerator and the co-branding between Morphy Richards and the British Museum for a three-piece kitchen appliance set. Hisense presented its Brilliant Series Air Conditioners that offer a customizable art design, featuring intangible cultural heritages and traditional Chinese techniques that include Chinese lacquer, Cloisonne, and mother-of-pearl inlay craftsmanship. AWE2023 also presented us with the HCK Retro Refrigerator, Bertazzoni's built-in oven with enamel cavity finishing, and Supor's retro handheld iron.



AUX Fresh Air Series Air Conditioner utilizes a combination of wire drawing and microperforated designs, featuring 8,335 micro-holes to deliver gentle airflow and enhance indoor comfort. Rinnai's White Lover series kitchen appliances deliver a dreamy and stylish all-white kitchen that promises both quality and elegance.





DEEBOT Robot Vacuum offers an all-in-one design that incorporates nine functions, including automatic mop rinsing, automatic water replacement, automatic solution replenishment, automatic dust collection, 99.9% sterilization + 99.99% antibacterial capability, hot air drying, automatic water refilling, self-cleaning, and safety lock for children.

### Conclusion

The four-day AWE2023 came to an end, but the brilliant exhibits continue to resonate with us.

Looking back on the most intensive and cutting-edge exhibition in home appliance and consumer electronics, we strive to reflect on the industry's progress as it continues to reshape our lifestyles.