

**PHILIPS**

Ambient Experience



**Enhancing the care environment  
with Philips Ambient Experience**



# Ambient Experience solutions

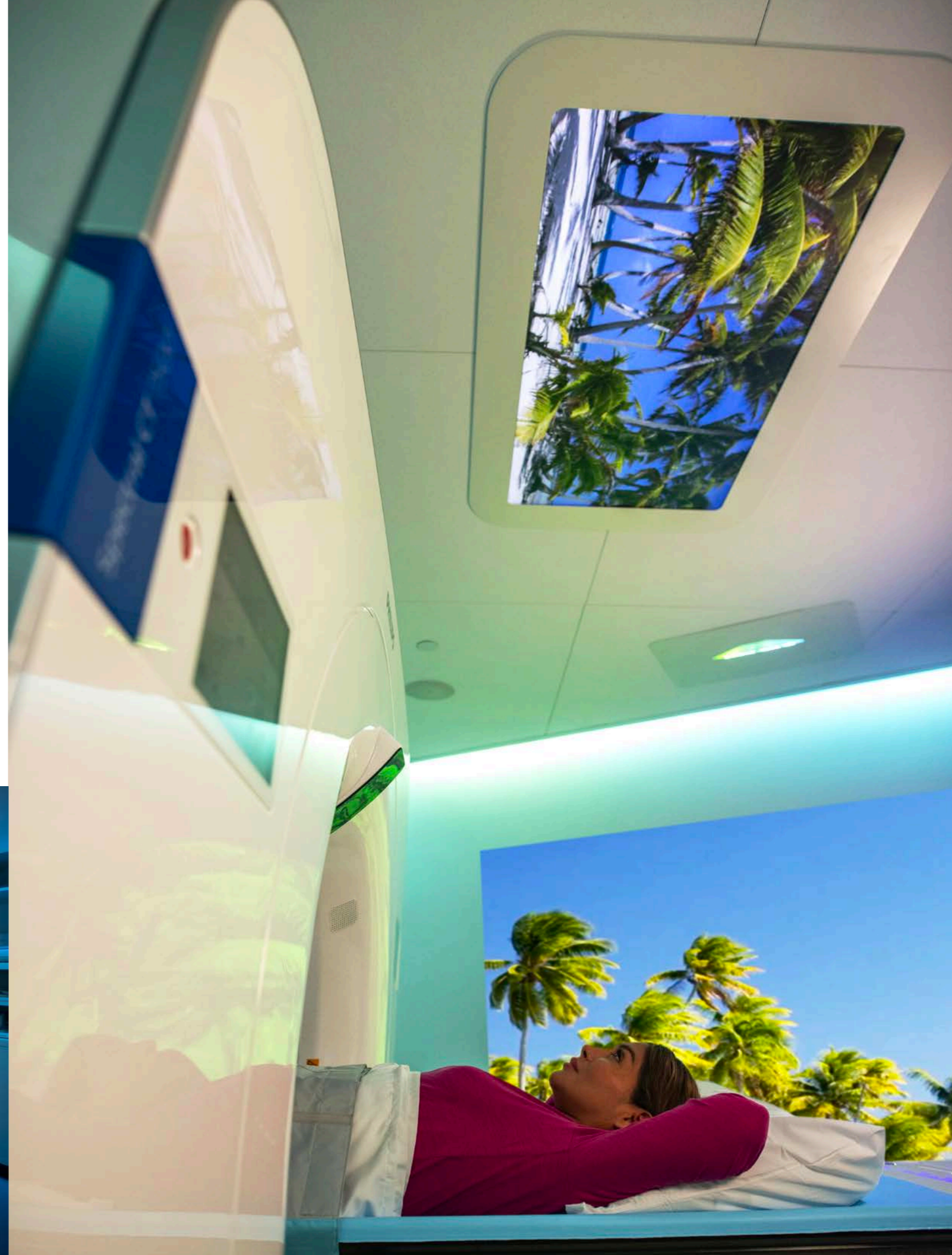
Higher productivity, more efficient processes, and a better care experience for patients, family and staff – these are some of the tangible results we can help you achieve with Ambient Experience.

Measured success from our 3,000+ installations demonstrates that reducing patient stress can lead to better patient compliance, thereby decreasing delays and retakes. This can have a positive impact on your clinical, operational and financial challenges.

Our evidence-based approach considers just how patients interact with their imaging environment. People-centric design thinking then transforms the experience to soften the impact. We use room design, dynamic lighting, video projection, and sound to provide positive distractions and give patients greater control of their environment – all aimed at improving the care experience for patients and healthcare professionals alike.

## Key advantages

- Enhances the patient and staff experience
- Improves staff workflow
- Delivers cross modality experiences
- Supports pediatric care
- Differentiates the facility
- Establishes a better care environment





# A solution designed to comfort

Philips scientists, designers, and architects have developed solutions to help suppress the physiological response to stress through creation of a soothing care environment. The intent is to instill confidence in the patients and staff so that the experience will be a good one.

## Cross-modality patient-centric care

Philips Ambient Experience solutions are fully scalable and in practice across the clinical application spectrum. From radiology settings to oncology suites, Ambient Experience brings open, stress-free surroundings to

promote patient comfort and clinician satisfaction. In preparation, procedure, and post-procedure environments, Ambient Experience offers support every step of the way.

## Ambient Experience benefits

### The patient

- Greater control through personalization
- Reduced anxiety
- Increased comfort
- Possible reduction of procedure time and need for anesthesia

### The staff

- Increased working comfort
- More patient contact
- Better patient compliance
- Fewer retakes
- Enhanced job effectiveness
- Improved ergonomics
- Improved staff experience/satisfaction

### The hospital

- Maximized throughput
- Optimization of facilities
- Differentiation in the local market
- Customer satisfaction and retention



## Guided by a proven set of rules

Ambient Experience is founded on four design principles...

- **Comfort** – create an environment that contributes to the ease and well-being of patients, families, and clinical personnel
- **Personalization** – give the patient a sense of control over their experience by allowing them to interact with their care environment
- **Workflow** – remove disjointed, cluttered, and isolated work areas that adversely impact staff efficiency and satisfaction
- **Contact** – maximize interaction between medical personnel and patients by decreasing physical barriers

...and tailored using a consistent set of core elements:

- **Active relaxation themes** – Ambient Experience accesses thematic content for different age groups, cultures, and personal tastes
- **Dynamic lighting, sound and video** – Integrated to provide both positive distraction for the patient and an opportunity to personalize the environment
- **Room design, site planning and project management** – Recommendations are provided to optimize the clinical area for a more soothing environment



# Measured success

A 2020 survey of the installed base, further revealed the following.<sup>1</sup>



1. During a case study at the Radiologisches Zentrum am Kaufhof in Lübeck, Germany the number of patients needing sedation was reduced by 80% when scanned on the MRI system with InBore Connect - Compared to sedation rates on three on-site systems without (visible) InBore Connect. The sedative agent used was Diazepam, a valium-based derivative. Results from case studies are not predictive of results in other cases. Results in other cases may vary. (Kesseböhmer J. *Can enhancing the MRI In-bore Experience reduce the need for patient sedation? Diagnostic Imaging Europe 2017*).
2. Herlev hospital reported a 70% reduction in rescans on a scanner with Ambient Experience and In-bore Connect during an on-site case study - compared to the average number of rescans reported on the other five on-site Philips MR scanners without Ambient Experience and In-bore Connect. Results from case studies are not predictive of results in other cases. Results in other cases may vary. (FieldStrength MRI magazine *User experiences - February 2018*).

“It’s our job to stay by our patients’ side and build trust. That’s a challenge that medical technology alone cannot overcome. The Ambient Experience themes help us immediately connect with them.”

Mami Tokuhara, Nurse, Tokyo Metropolitan Geriatric Medical Center, Tokyo, Japan



“Never before have I gotten so many comments from our patients, saying ‘wow’ that was a really good experience.”

Constantino Pena, MD, Medical Director of Vascular Imaging at Baptist Hospital, Miami, FL, USA



## Clinical versatility allows broad effectiveness

Ambient Experience is a concept rooted in the understanding that the environment in which people interact has an impact on their mood. We have applied this solution across imaging suites and beyond, providing you the opportunity to find just the right fit.



# Ambient Experience for MR



An MRI exam can be very stressful. The noisy, claustrophobic environment is difficult for many to endure. As a result, anxious, non-compliant patients lead to more retakes, longer procedures, and unnecessary sedation.

Ambient Experience, with its calming visual themes, accompanying audio and lighting relaxes the patient prior to the exam.

## Personalizing the environment

Entering the MR suite, patients are given the opportunity to select a favorite theme and personalize the environment, through use of a touchscreen. The room then presents an engaging, welcoming, and multi-sensorial experience. This feeling of control is beneficial to reducing stress.

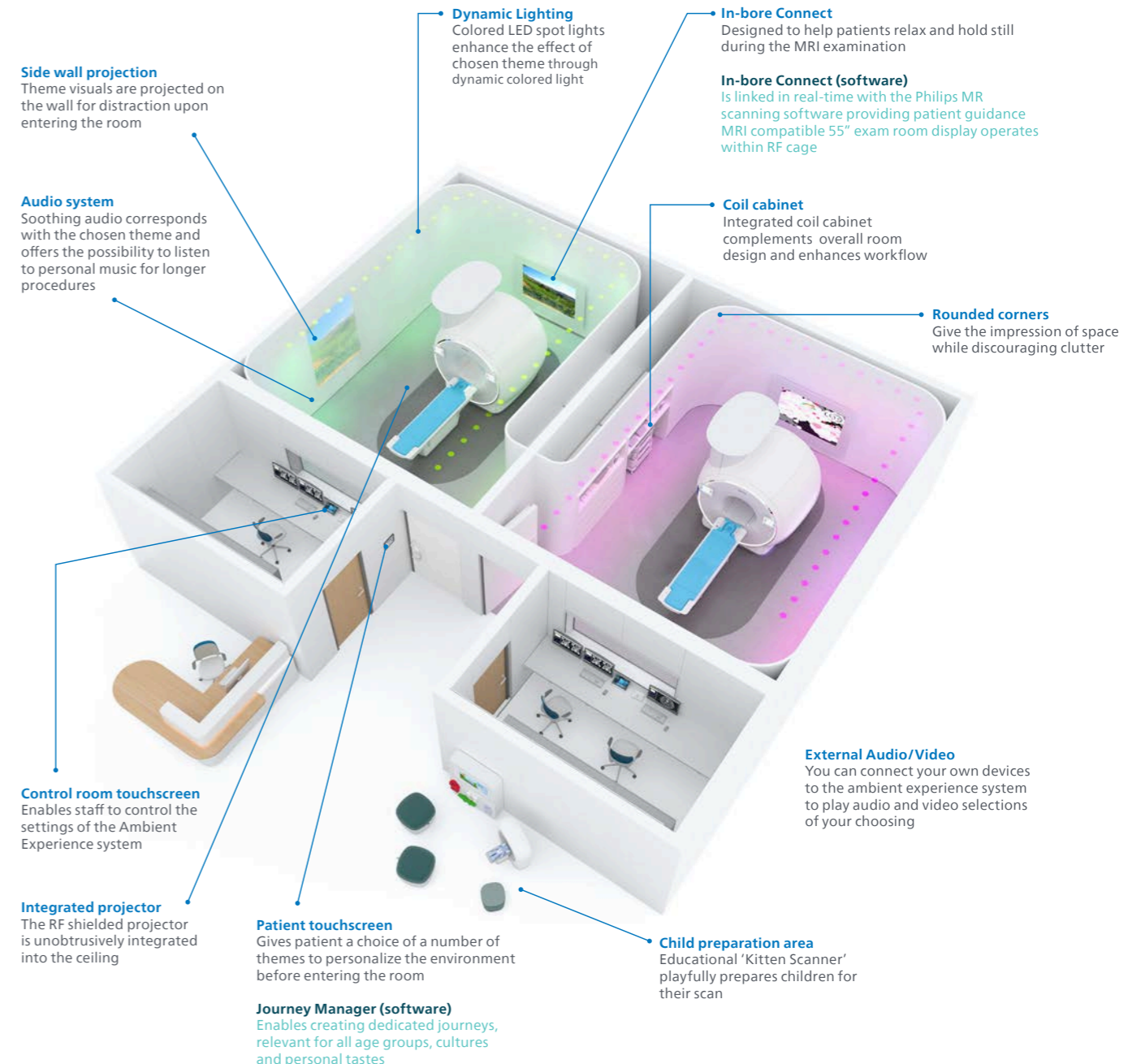
## Support in the bore

In-bore Connect uses audio and visuals to help patients remain calm and compliant while in the bore. It improves the patient experience during the scan by providing step-by-step guidance information and positive distraction. In-bore Connect offers breath hold cues and view of a progress bar (which indicates duration) – enhancing compliance. Breath hold cues are integrated into each MR exam card and triggered automatically.



# Ambient Experience for mobile MR

Ambient Experience takes to the road! Patients who are stressed about an MR exam may find the mobile MR unit even more confining. Ambient Experience steps in to support the helium-free BlueSeal Mobile MRI system with a solution ideal to improving patient comfort. The mobile unit provides the flexibility to deliver fast, patient-friendly MRI services where and when they are needed – all in a calming environment.





## A unique solution for children

Ambient Experience allows children (or staff) to personalize a multisensorial MR room by selecting a pediatric-oriented theme. Upon selection, the room transforms and engages the child in a comforting experience.

This may lower the risk of healthcare-induced anxiety by providing a positive experience as research has shown in pediatric MR imaging settings.<sup>3</sup>

### The Pediatric Coaching solution

Pediatric coaching is a solution designed to prepare and guide children for their MR scan – at home, in the hospital, and during the procedure. Through play-based, augmented reality, educational activities, the Philips Pediatric Coaching solution helps reduce stress in young children ages 4 and older.

### The Scan Buddy app

From the comfort of their home, children can use the Scan Buddy app to explore the procedure in exciting ways. They are introduced to Ollie and friends, characters that appeal to a child's sense of wonder and who will guide them through the learning process.

### The Kitten Scanner

At the hospital, children again meet up with Ollie and her friends at the Kitten Scanner. This miniature educational toy scanner features the exam experiences of three characters. It reinforces key elements of the procedure and the importance of lying still.

### In-bore Connect Pediatric License<sup>4</sup>

During the scan, using the pediatric application, the young patient meets scan buddy Ollie once again to coach them through the actual scan. It presents a progress bar in an audio visual form that indicates to the child the sequences of the scan as they happen.



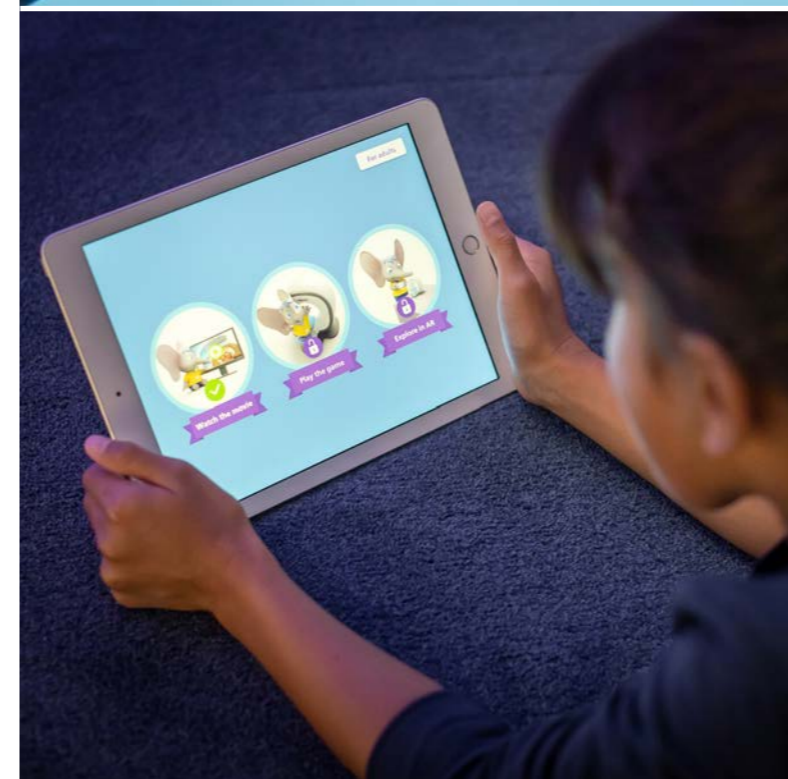
“We’ve achieved something fantastic here. It is better than we anticipated and more effective than we anticipated. Children are more cooperative and we get the scan we need.”

Dr. Susan Morris, Pediatric Radiologist, University Hospital of Wales, Cardiff & Vale NHS Trust

## Successful sedation replacement



A children-centered-care study in Denmark, where the Philips ‘Kitten Scanner’ and Ambient Experience with In-bore Connect were in use, reported that the use of general anesthetics for MRI in children aged 4–6 was reduced from 57% to 5%. A further single institution study indicates that when anesthesia was not used in pediatric imaging, successful MRI scan rates rose to 95%, with an annual labor cost savings of \$139,367.80.<sup>6</sup>





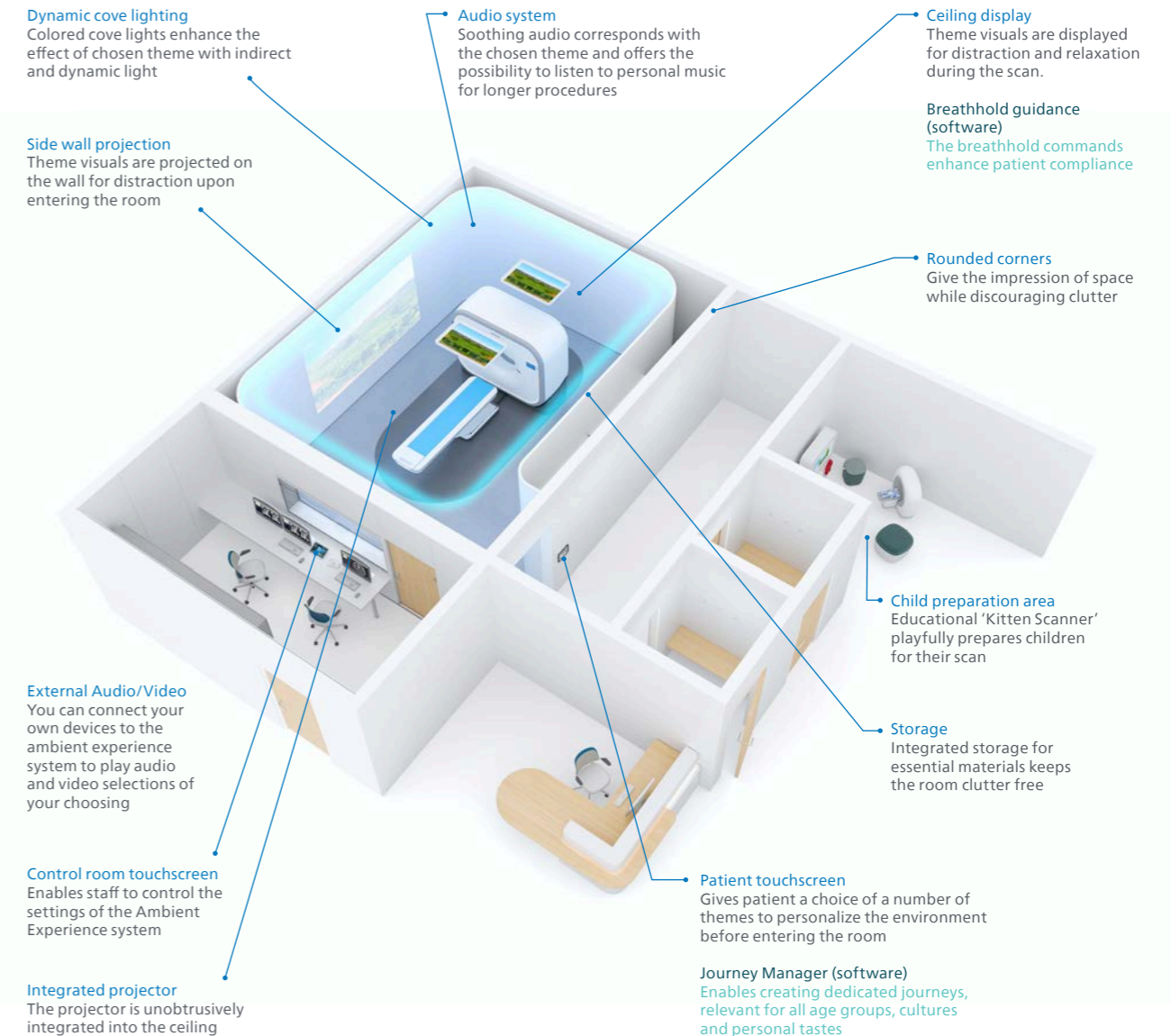
# Ambient Experience for CT

CT exams are fast, but the experience can still be stressful for patients. Philips Ambient Experience integrates dynamic lighting, sound, and video to create an engaging environment designed to ease patient stress during diagnostic imaging exams and to positively impact workflow and productivity.

By removing the negative elements and impersonal atmosphere associated with a typical exam room and replacing them with positive elements that distract, inform, educate, and empower patients, improved cooperation and satisfaction results.

Choosing a theme help patients feel engaged and gives them a sense of control. The room's dynamic gradient lighting, audio, and video render the theme they've chosen to create a welcoming ambiance.

Use of Ambient Experience may reduce the need for retakes which can lower examination costs, while improving workflow to yield good clinical results.





# Themes designed to soothe

There are more than 40 active relaxation themes, offering more than 9 hours of specially designed content, accommodating different ages and cultural groups.

## A scientific approach

These themes have been designed using knowledge about cognitive behavioral science – explaining how an anxiety causing event can start a negative spiral in dysfunctional cognitive performance. Their intent is to enhance the patient experience, facilitate patient/staff interaction and improve patient compliance.

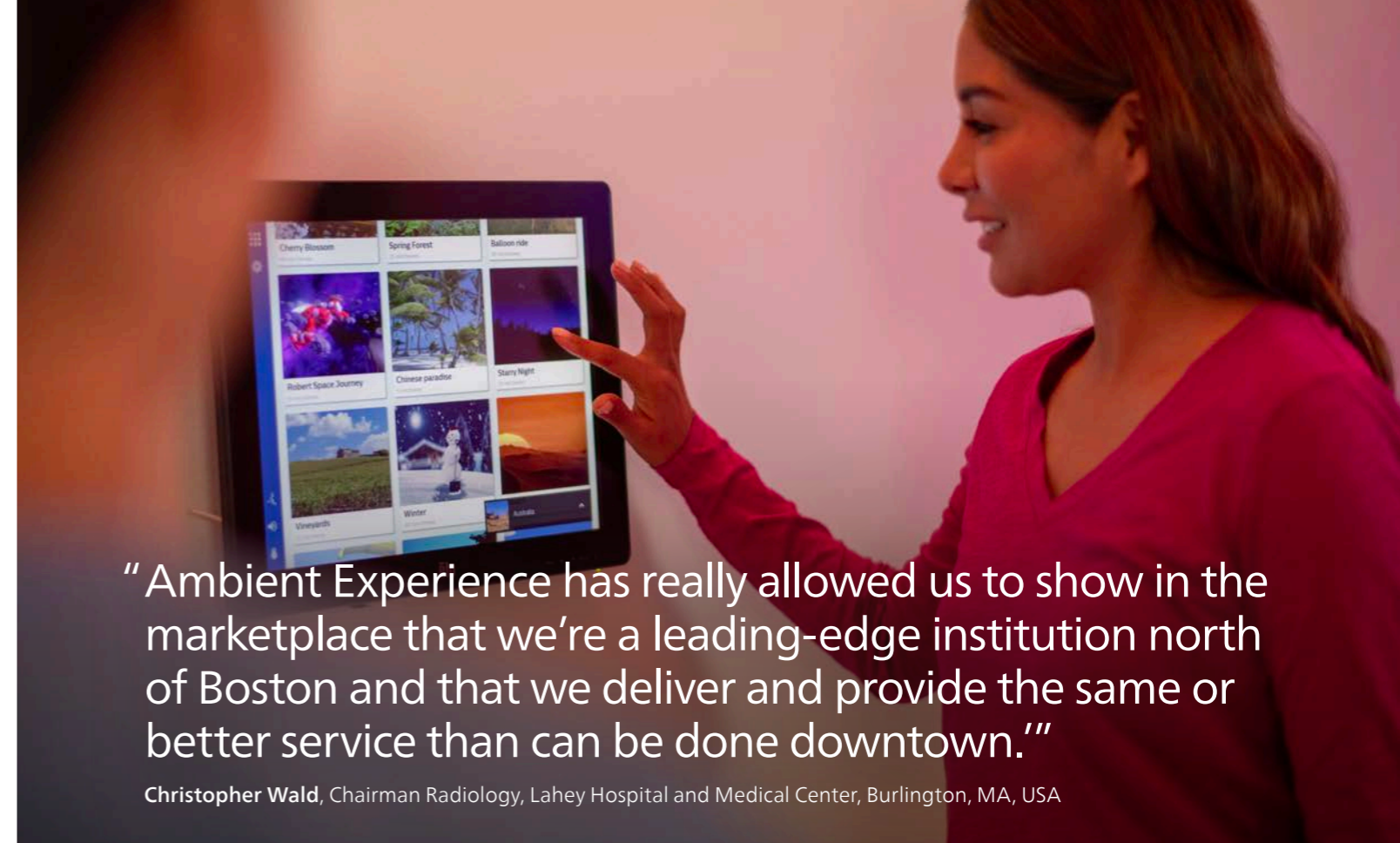
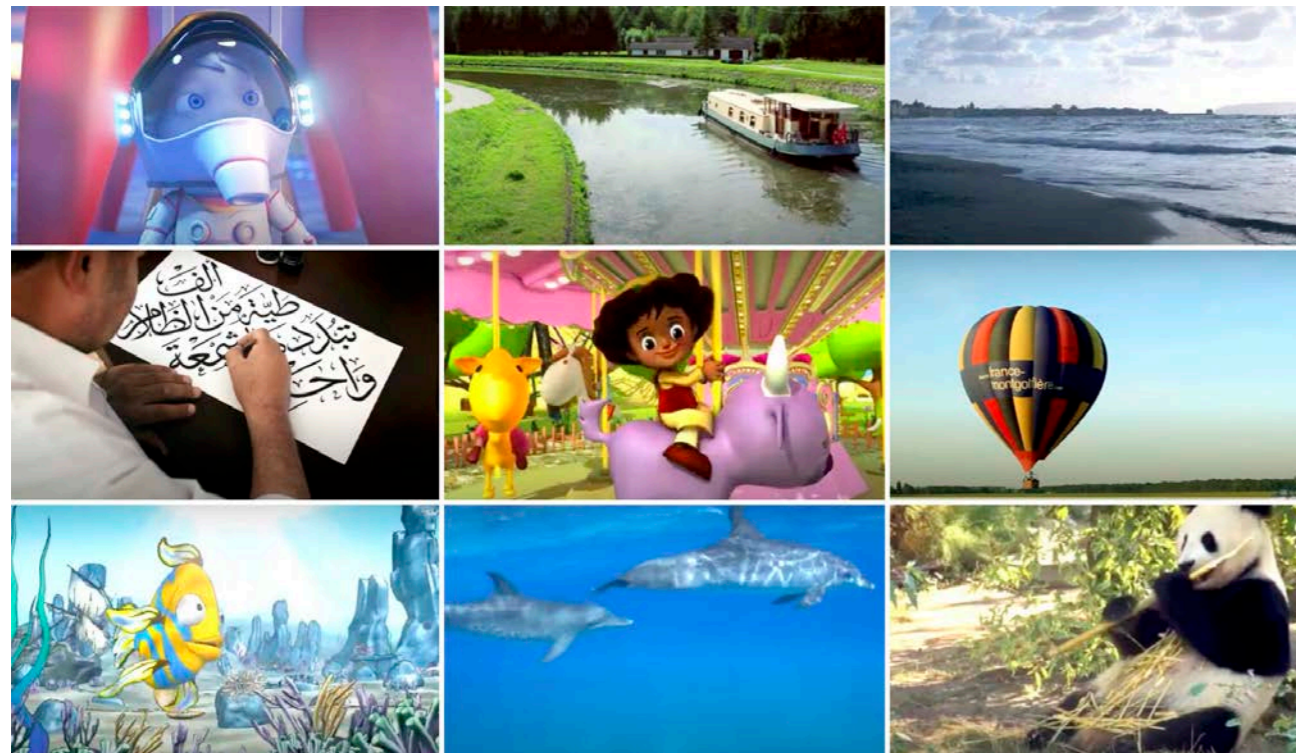
When developing themes we take the application into account. The application determines many aspects that influence the design of a theme:

- The space and typical room size
- Applied Ambient Experience technologies
- Clinical workflow and timing – e.g. length of time
- Typical patient demographics
- Typical physical and mental condition
- Business values
- Staff context

The broad portfolio of themes include topics appropriate for all ages:

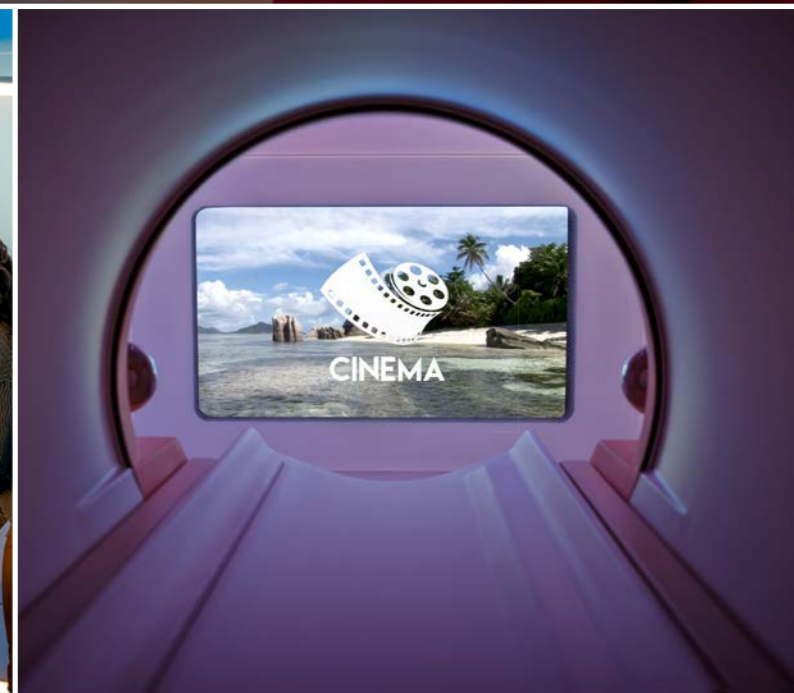
- Art
- Nature
- Travel
- Cartoons
- Culture

Patients can even connect their own HDMI capable devices to the Philips Ambient Experience system to watch personal audio and video content during the imaging procedure.



“Ambient Experience has really allowed us to show in the marketplace that we’re a leading-edge institution north of Boston and that we deliver and provide the same or better service than can be done downtown.”

Christopher Wald, Chairman Radiology, Lahey Hospital and Medical Center, Burlington, MA, USA



- Lerwick, J. L. (2016). Minimizing pediatric healthcare-induced anxiety and trauma. *World Journal of Clinical Pediatrics*, 5(2), 143-150.
- In-bore Connect Pediatric License requires Philips Ambient Experience, in-bore Connect solution (sold separately).
- Runge SB, et al. Children centered care: Minimizing the need for anesthesia with a multifaceted concept for MRI in children aged 4–6. *European Journal of Radiology*. 2018;107:183–187.
- Chen, Joshua Vic. Et. al. Factors and Labor Cost Savings Associated with Successful Pediatric Imaging without Anesthesia: a Single-Institution Study, 2023 *The association of University Radiologists*. Published by Elsevier Inc.





For more information please contact your local Philips representative.  
Or send an email to: [ambient.experience@philips.com](mailto:ambient.experience@philips.com)