



# THE GERMAN PAVILION AT EXPO 2020 DUBAI

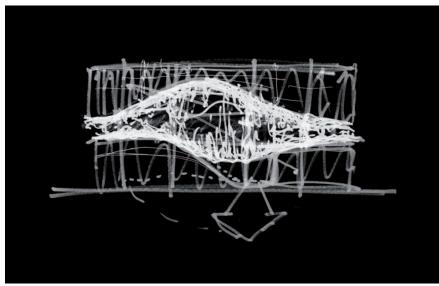


## **CONCEPT** IDEA

The organisers of EXPO 2020 Dubai have divided the event's overarching theme of "Connecting Minds, Creating the Future" into three subthemes – Opportunity, Mobility and Sustainability – each with its own dedicated district on the site.

In a reflection of the country's role as a world leader in the field, the German Pavilion will be located in the **Sustainability District**. Germany is, after all, the place where sustainability was invented, where the energy revolution known as the "Energiewende" was born, and a place where science, industry and large parts of civil society are actively committed to securing a sustainable future. Sustainability is the subject of analysis, research, practice and development in Germany, which is what the title of the German Pavilion at EXPO 2020 Dubai sets out to convey: **CAMPUS GERMANY**.

This campus metaphor presents the pavilion as a place of knowledge, research, dialogue and human interaction – an image that fits in well with the theme of EXPO 2020 Dubai. The German Pavilion will be a place that provides easily accessible information for visitors. A place where they can play an active role and feel part of a large community that is working to ensure a sustainable future. A place that turns the EXPO theme into reality: "Connecting Minds, Creating the Future".



Concept sketch.

The **German Pavilion** plot occupies a prominent position on the main thoroughfare of the EXPO, a circular path connecting the three theme districts. CAMPUS GERMANY will therefore be visible from afar from various directions – including from the **Al Wasl Plaza**, the centrepiece of the site. Conversely, the plot also offers a direct view of the host country's pavilion, for which the United Arab Emirates has commissioned Santiago Calatrava as the architect.



The German Pavilion at EXPO 2020 Dubai.



Night view: CAMPUS GERMANY.



The EXPO site.

The design of the German Pavilion gives an architectural form to the underlying campus idea while also taking into consideration specific criteria to be met by the building. It combines functional aspects – such as space requirements, route layout and visitor experience – with environmental factors related to the pavilion's position on the EXPO site and the climate in Dubai. Sustainability also features strongly in the design.

The campus idea has been adapted to the local conditions and translated from the horizontal to the **vertical**: an open, welcoming ensemble of individual building volumes is framed by the "swaying" lines of the plinth and roof, creating a striking, dynamic look.

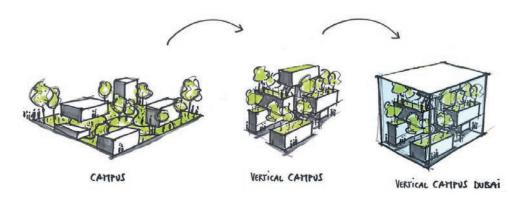
This profusion of structures also represents Germany's federal system and the diversity of its industry and research sectors.



North-west view of the German Pavilion.



South-west view of the German Pavilion.



A vertical campus for Dubai.

The **cubes**, each tailored for its own particular function, embrace a roofed atrium, protecting it from the sun. Like a campus, where a variety of buildings are brought together and framed by a park, the interplay between the pavilion's cubes and the free-flowing expanses between them results in a fascinating sequence of spaces.

The **atrium** is the real heart of the pavilion: a green, open area, offering many surprising perspectives and panoramic views. A place where lots of things happen at the same time – in the exhibition, on the stage and in the restaurant. On all levels, there will be people exploring the pavilion, chatting, sharing their thoughts and enjoying the campus atmosphere. CAMPUS GERMANY will be a democratic, transparent place – multi-faceted, diverse, varied and lively: a place for people. This is a concept that makes the building itself part of the exhibition, turning it into a tool with which to connect people and content – true to the EXPO theme of "Connecting Minds, Creating the Future".



An open, green atrium gives the campus interior its distinctive look.



The restaurant is integrated into the pavilion's spacious atrium.



The pavilion stage is located in the heart of the atrium.

# **EXHIBITION DESIGN**AND EDUCATIONAL APPROACH

The exhibition areas' immense spatial installations will grab visitors' attention and sharpen their senses in readiness for the innovations and solutions on show in the numerous exhibits. The approach will be edutainment-based with interactive content that delivers on fun and emotional value while also providing a wealth of information. The themed displays will present technical and scientific innovations from Germany in an easily accessible manner.

With the help of digital innovations, the exhibition will become an intelligent space that responds to visitors individually and provides an unprecedented, customised exhibition experience. The technology used to do this **(IAMU)** will be specially developed for the German Pavilion and have its world premiere in Dubai.



The official logo.



The official logo for the Arabic-speaking region.

## **VISITOR JOURNEY**

On their journey through the German Pavilion, visitors will come across a number of campus-related features. Everyone will be **"enrolled"** and given a name badge when they enter the building. This is a small, personal gesture to establish the spirit of the campus – a place where everyone is equal and anyone can talk to anyone.

An "induction event" will present the campus metaphor and the theoretical concept behind it – the **Anthropocene**, the era of human impact. It will explain that humankind has become the major factor influencing our planet today – both in negative and positive ways – and that there is hope if people work together to ensure sustainable living.

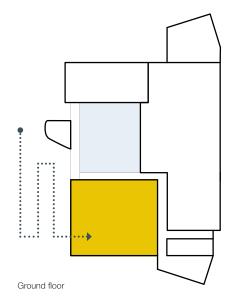
The next room, the **Welcome Hall**, will showcase Germany as an international centre for sustainability – in the, admittedly, rather surprising form of a pit of balls sporting the colours of Germany's flag, black, red and gold. In fact, the 150,000 balls will contain data and each tell a short story, present a fact or feature a sustainability champion from Germany.



Interactive statistics



Taking a brighter approach to statistics – an exhibition space immersed in the colours of Germany's flag.



Visitors will then move on to the actual "curriculum", exploring three areas that each focus on a key sustainability issue. In the **Energy Lab**, with its dark, pulsating "energy cables", they will discover energy supply solutions for the future. In the **Future City Lab**, they will become part of an all-encompassing urban landscape and explore innovations for the cities of tomorrow. And in the **Biodiversity Lab**, they will experience the beauty and vulnerability of nature beneath a suspended installation of magnificent proportions.



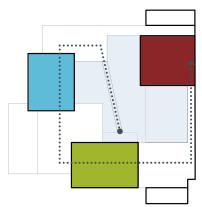
The Energy Lab: showcasing ideas for the energy of the future.



A seemingly never-ending space where everything revolves around one question: "How do we want to live in the future?"



The suspended installation in the Biodiversity Lab symbolises the fragile balance of nature.



Second floor

Between the labs, visitors will repeatedly find themselves on the **terraces** of the open atrium, where they can experience the campus in all its spectacular diversity. In line with the principles of collaboration and communication that underpin the German Pavilion concept, many of the **exhibits** here will only function if several people work together to operate them.

The visitor journey ends in the **Graduation Hall** with a surprising grand finale – a show on swinging seats. Aided by the intelligent IAMU system, the visitors from all over the world will come to realise that there is much more that unites them than divides them. They will see that if they join forces – by swinging back and forth together, for example – they can achieve much more than they think. An unexpected end to the journey and one that will stir visitors' emotions and give them a sense of hope.



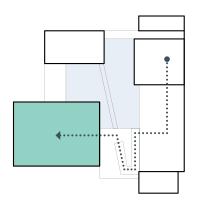
"Smart Grid" exhibit: Complex ideas communicated in a fun way.



"Planetary Boundaries" exhibit: Many of the exhibits require collaborative participant engagement.



"Value of Ecosystems" exhibit: Interactive exhibits enable visitors to discover facts and innovations for a more sustainable future.



"Mezzanine" between the first and second floors

## **TEAM**YOUR HOSTS

Overall responsibility for Germany's presence at EXPO 2020 Dubai lies with the **Federal Ministry for Economic Affairs and Energy.** 

The Ministry has commissioned **Koelnmesse GmbH,** Cologne's trade fair operator, to organise and run the German Pavilion. Preparations have been underway in Cologne since 2017 and Koelnmesse's Expo team will join the Ministry to act as host for the German Pavilion in 2020/2021.

The "German Pavilion EXPO 2020 Dubai Consortium", comprising facts and fiction GmbH (Cologne) and NUSSLI Adunic AG (Hüttwilen, Switzerland), is in charge of concept design, planning and implementation. facts and fiction will be responsible for content, exhibition and media design, and the pavilion will be built by NUSSLI Adunic.

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## THE GERMAN PAVILION AT EXPO 2020 DUBAI BACKGROUND INFORMATION: THE ANTHROPOCENE

"We must emphasize the tremendous achievements of humankind so we get a stronger feeling that we aren't doomed but can make smart decisions for a smart future."

Paul J. Crutzen

It is a truism that humans change the world – in positive and negative ways. Since industrialisation, modernity and the Enlightenment, humankind has been consumed by a belief in progress and in all things being possible. But progress has its downsides, with everincreasing globalisation gradually eroding the environment in which we live.

Slowly, from the end of the 1960s, there was a rise in awareness of the risks of industrialisation, culminating in 2000 when Nobel Laureate Paul J. Crutzen, then Director of the Max Planck Institute for Chemistry, postulated a new era: the Anthropocene. His idea was that humankind had developed so far by the beginning of the 19th century and its influence on geological, biological and atmospheric changes had become so irreversible that this process should be considered a geological era in its own right. According to this theory, humans are no longer merely biological agents – they are also geological agents, alongside glaciers, meteorites and volcanic eruptions.

The concept of the Anthropocene implies a responsibility on humankind and, ultimately, on every member of the human race to be aware that our combined actions are part of the Earth's history. Each and every one of us has a determining impact on this planet. Since it is impossible to avoid this personal impact, it is important now to tackle the challenge head on and change global development for the better.

Earth in the Anthropocene needs to be sustainable – for the good of humankind. Achieving that requires the right technological, economic and social parameters to be in place. Sustainability must have highest priority in everything we do. With our intelligence and creativity, humans can put global development back on the right track, thus ensuring the survival of the current and future generations. That is the message that the German Pavilion, "CAMPUS GERMANY", will set out to convey at EXPO 2020 Dubai.

# THE GERMAN PAVILION AT EXPO 2020 DUBAI

BACKGROUND INFORMATION: IAMU

The German Pavilion at EXPO 2020 will be a truly intelligent and inspiring exhibition that responds to each visitor individually thanks to an innovative system, IAMU. The system will be specially developed for and world-premiered at the EXPO. IAMU will create a groundbreaking, awe-inspiring visitor experience for German Pavilion guests, allowing them to move around an intelligent pavilion that interacts with them in real time.

### The technology

The IAMU system will be based on a real-time locating system (RTLS) and will be activated as soon as visitors put on the name badge they get when they "enrol" at the entrance to the exhibition. The badges will have a built-in transmitter, enabling IAMU to determine the real-time location of each badge and thus of each visitor. This information will be combined with additional data collected when the visitors receive their badges (first name, home country and language) and during their journey through the pavilion and its labs (number of exhibits visited, interests, etc.). Supported by artificial intelligence, a central software platform will then use the information to determine how the spaces and their interactive elements (media, light, sound, kinetics, etc.) respond to each individual guest. Various applications and situations are possible, as described in the following.

### Personalised communication and multilingual functionality

When someone approaches an exhibit, they will be welcomed by name in the language of communication they selected when they "enrolled" in the entrance queue. If two people with different languages engage with an exhibit at the same time, the exhibit will switch to bilingual mode. It will also be possible to provide information and questions specially geared to children.

## Visitor engagement

As they make their way through CAMPUS GERMANY, visitors will have numerous opportunities to engage with the exhibition by sharing their thoughts and opinions on questions such as, "Do you believe that you yourself have ever experienced the effects of climate change?" This will result in a detailed picture of their opinions, which, added to other information, will be integrated into the installations and the overall visitor experience. Visitors will come away with unexpected new perspectives on their own ideas and attitudes.

#### **Next-level interaction**

The intelligent pavilion will also be full of entertaining "magical moments", created, for example, by complex exhibits responding to visitors simply moving around. A place full of things that will have even the tech-loving audience in Dubai wondering, "How does it do that?"

The end product will be a smart space that responds to visitors and their interests. People are used to their smartphones offering them customised experiences but this exhibition will use the same intelligence and turn it into an invisible part of the space. Visitors will thus enjoy an individualised experience, tailored to their own specific requirements, but without having to use their smartphones.