

# **ESO** Supernova

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Planetarium & Visitor Centre

## **FACT SHEET**

## ESO Supernova in numbers

<b>2</b>	Number of seminar rooms.
<b>13</b>	Number of themes in <i>The Living Universe</i> exhibition.
<b>14</b>	Diameter of the planetarium dome in metres.
<b>15</b>	Distance to Munich city centre in kilometres.
<b>15.5</b>	Height of The Void in metres.
<b>17.5</b>	Highest point of the building in metres
<b>25</b>	Inclination of the planetarium dome in degrees.
<b>109</b>	Number of seats in the planetarium.
<b>140</b>	Area of The Void in square metres.
<b>166</b>	Total area of the two seminar rooms in square metres.
<b>255</b>	Length of the ramp that takes visitors around <i>The Living Universe</i> exhibition.
<b>1000</b>	Weight of steel in tonnes
<b>2200</b>	Area of the exhibition space in square metres.
<b>5000</b>	Amount of concrete in m <sup>3</sup>
<b>10 000</b>	Landscaping area around in m <sup>2</sup>
<b>50–100 000</b>	Number of visitors expected per year.

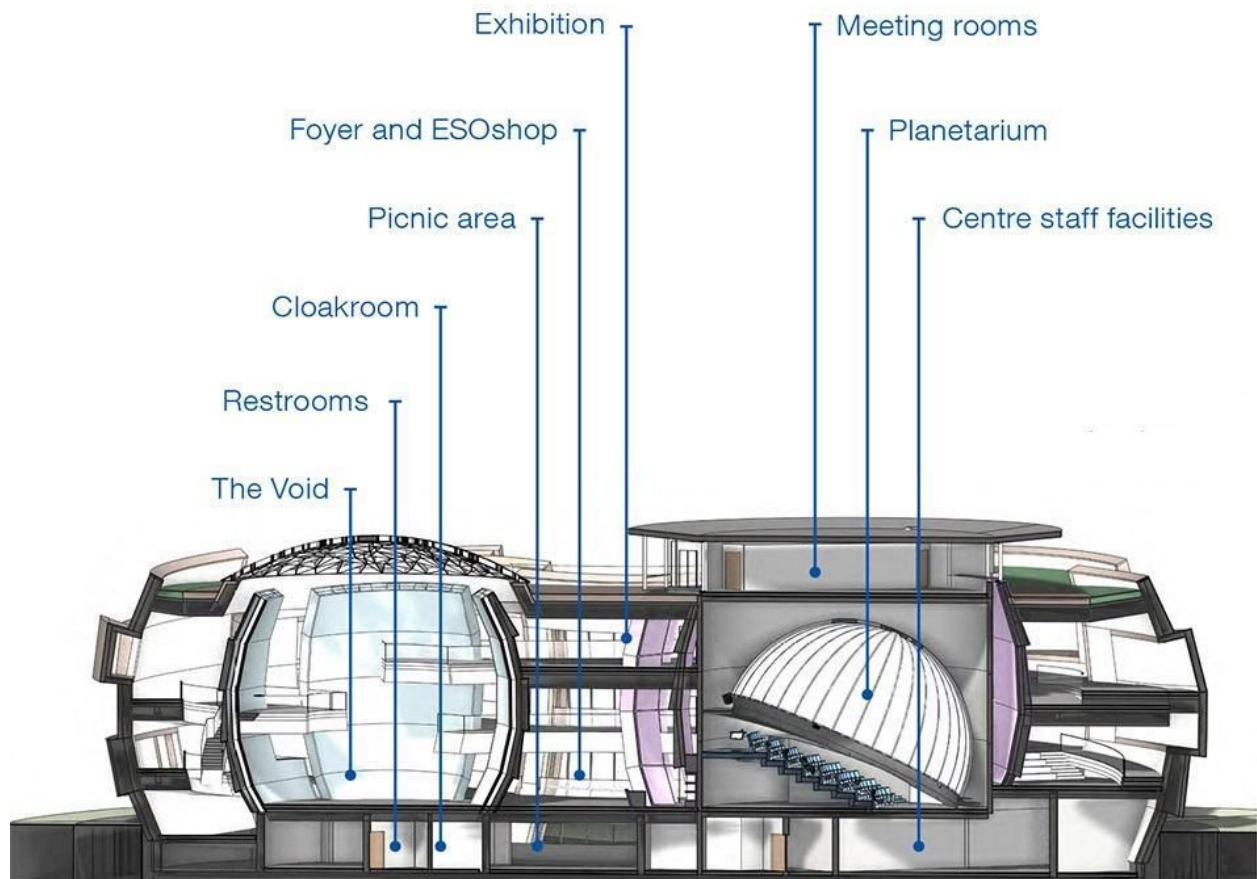
## General facts

- The ESO Supernova Planetarium & Visitor Centre is located at the ESO Headquarters in the [Forschungszentrum](#) Garching, 15 kilometres north of Munich, Germany.
- The new building is a collaboration between [ESO](#) and the [Heidelberg Institute for Theoretical Studies \(HITS\)](#). The [Klaus Tschira Stiftung \(KTS\)](#) funded the construction.
- The groundbreaking ceremony for the construction work took place on 24 February 2015, the official inauguration event of the visitor centre is on 26 April 2018. The centre opens to the public on 28 April.
- The ESO Supernova contains a modern, digital, fulldome planetarium.
- The dome has a diameter of 14 metres, an inclination of 25 degrees and 109 seats.
- It is one of about 10 digital fulldome planetariums in Germany.
- The exhibition area covers almost 2200 m<sup>2</sup> distributed over three floors.
- The exhibition is experienced by walking along a 255-metre long gently-sloped ramp.
- 13 themes introduce visitors to the science and technology behind modern astronomy and the place of the Earth in the Universe.
- Guided tours through the exhibition and to other ESO buildings are possible several times per day.
- The opening hours are 09:00 to 17:00 Wednesday–Friday, and 12:00 to 17:00 Saturday–Sunday. The centre is closed on Mondays and Tuesdays.
- 50 000–100 000 visitors are expected to visit the ESO Supernova each year.
- All activities are free of charge in 2018.
- The centre is fully bilingual — German and English.

## Activities

As well as presenting a huge exhibition, the ESO Supernova offers a large range of activities, including planetarium shows, interactive tours, and engaging workshops for school groups.

- **Planetarium shows**
  - Hidden Universe
  - From Earth to the Universe
  - The Secrets of Gravity
  - Phantom of the Universe
  - The Skies Above Us
  - A Tour of the Solar System
  - Two Pieces of Glass: The Amazing Telescope
  - Europe to the Stars
- **Standard Tours**
  - Premises Tour
  - ESO Supernova Exhibition Tour
  - ArchitecTour
- **Bookable Tours**
  - Is Anybody Out There?
  - Big, Bigger, ELT
  - The Astronomical Zoo
  - We Are Made of Stardust!
  - It All Started With a Bang!
  - The Big Questions
  - We Are All Doomed!
- **Educational workshops**
  - Our Home, Planet Earth
  - The Bright Side of the Moon
  - Astronomical Clocks
  - Catching Starlight
  - Astronomy Across the Spectrum
  - Seeing the Invisible
- **Public events:** talks, family events, music events, special screenings.



## The building

- The building's unique design resembles a binary star system, as it transfers mass from one component to the other, prior to going supernova.
- The design of this stunning, sleek building was conceived by Klaus Tschira with the help of the Darmstadt based architectural firm [Bernhardt + Partner](#).
- The new centre is the "sister" of the spectacular [Haus der Astronomie](#), a centre for astronomy education and outreach in Heidelberg, Germany, founded in late 2008 by the Max-Planck Society for the Advancement of Science and the Klaus Tschira Stiftung. Haus der Astronomie was also designed by [Bernhardt + Partner](#).
- The new building is integrated with the existing ESO facilities, making use of current roads and entry points enabling easy access for both visitors and staff.
- The building consists of a basement, ground floor and three upper levels.
- A service road for maintenance and access for emergency services is incorporated into the design of the new complex, with additional parking spaces for staff and visitors.

## Usage of each floor

### 1. Foyer on the ground floor

- The foyer area on the ground floor serves as the reception for all visitors to the facility.
- Adjacent to the reception is a shop where a wide selection of items can be purchased.
- Ticket machines deliver free reserved tickets for all activities.
- Visitors can view large information screens showing the day's schedule for the planetarium shows, public and educational events, and guided tours.

### 2. Planetarium on the ground floor

- The digital state-of-the-art planetarium holds 109 visitors in 360-degree dome with a 14-metre diameter, unidirectional seating and an inclination of 25 degrees.
- It is one of only about ten digital full-dome planetariums in Germany and the largest tilted planetarium dome in Germany, Austria and Switzerland.
- ESO plans to display up to six shows per day in German or English.
- The crystal-clear digital projections onto the dome come from scientifically accurate three-dimensional astronomical databases and ensure a unique and authentic immersive experience. Each show also contains a live component, moderated by a presenter.
- The ESO Supernova also offers the first real-time, data-driven distribution system for planetariums all over the world, which allows planetarium staff to select and download interesting news and datasets provided by ESO on a daily basis and include them in their own planetarium shows.
- All planetarium shows are free of charge in 2018.

### 3. The Void

- The Void is a large cylindrical room, opposite the planetarium. It is 15.5 metres high, with a total area of 140 m<sup>2</sup>. With its glass ceiling, the room has natural light during the day and a view of the sky at night.
- The lights mounted on the glass roof resemble the constellations of the Southern hemisphere.
- The Void functions as a temporary exhibition space and as the starting point for guided tours.

#### **4. Exhibition space from the ground floor to the second floor**

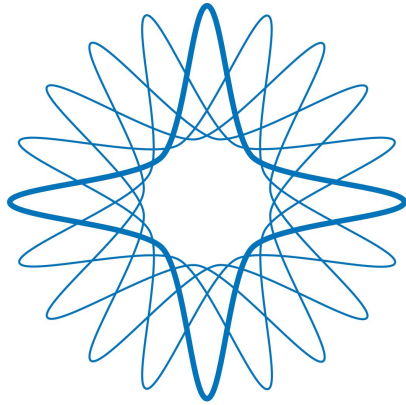
- The exhibition area covers almost 2200 m<sup>2</sup> from the ground to the second floor along a 255-metre long path.
- The exhibition starts at the bottom of the building, culminating in a highlight at the top and then a finale once the bottom is reached again.
- The duration of a visit is flexible, from a quick superficial 30-minute walk-through to a 4-hour in-depth study of all exhibits.
- The exhibition is called *The Living Universe*, and covers the topic of life in the Universe within 13 different themes. It connects visitors with topics that can seem very distant and abstract by focusing on the connection between humans on Earth and the vast Universe around them, general astronomy, life in the Universe, and how we observe the Universe using ESO facilities.
- The exhibition is engaging, interactive and it includes virtual reality elements. Visitors can explore, touch and use real astronomical artefacts and participate in educational games.
- The exhibition also caters for educators in Bavaria and elsewhere by including educational concepts from curricula, allowing teachers to use parts of the exhibition to support and enhance the way in which they teach the material.
- The exhibition includes a small 3D cinema where visitors can enjoy 3D and 2D movies in English and German.
- The exhibition is free of charge.
- All content is provided in English and German.

#### **5. Seminar rooms on the 3<sup>rd</sup> floor**

- Two seminar rooms named *Scorpius* and *Sagittarius* are available at the top of the building. They can be combined into one large room with a floor space of 166 m<sup>2</sup>.
- The rooms are used for educational workshops, public talks, company events, teacher training sessions and administrative and scientific meetings.
- A roof terrace is provided for those wishing to take a break from seminars or who simply want to enjoy the views of the site.

#### **6. Basement**

- Toilets and cloakrooms can be found in the basement, as well as a picnic area with tables and chairs.
- Several self-service vending machines providing sandwiches, drinks, etc. are available.
- The snack area is next to an outdoor terrace.
- All areas are designed with school visits in mind.
- The basement also contains a workshop area, storage facilities, ten temporary and permanent working places for centre staff, a kitchenette, a bathroom for staff and an audiovisual studio.



**ESO Supernova**  
Planetarium & Visitor Centre

The ESO Supernova Planetarium & Visitor Centre is a cooperation between the European Southern Observatory (ESO) and the Heidelberg Institute for Theoretical Studies (HITS). The building is a donation from the Klaus Tschira Stiftung (KTS), a German foundation, and ESO runs the facility.

Klaus Tschira Stiftung  
gemeinnützige GmbH



Heidelberg Institute for  
Theoretical Studies

