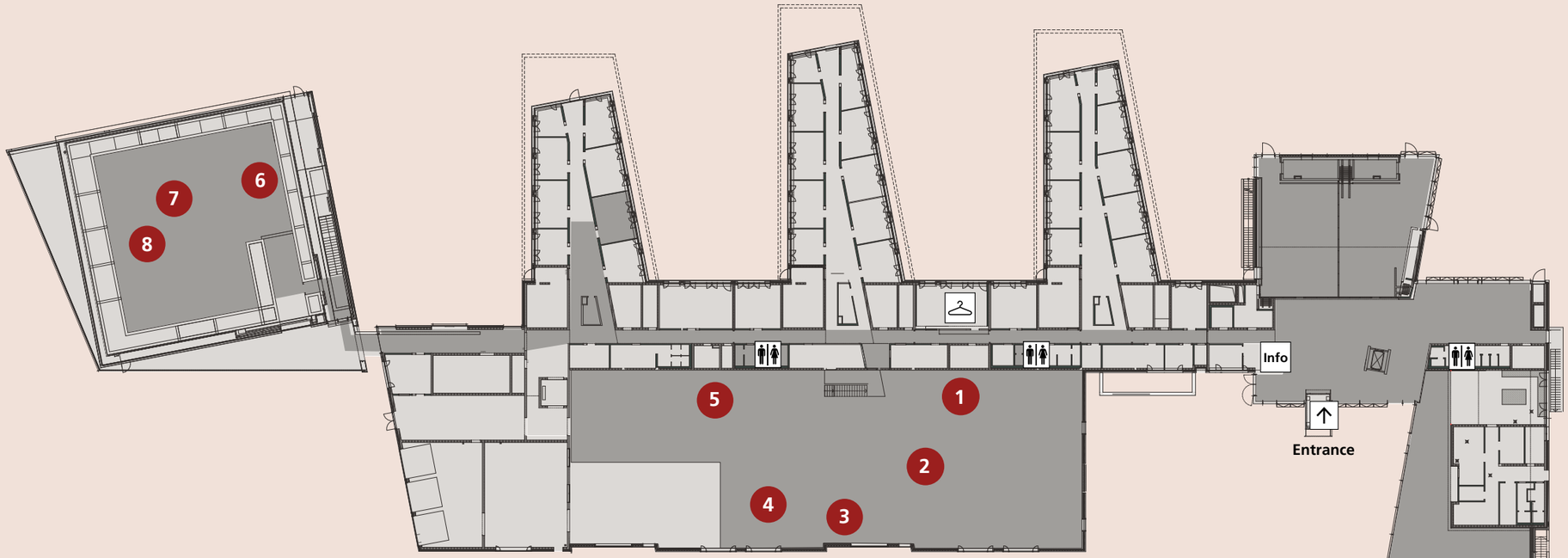
FÜRTH | GROUND FLOOR



1 **FINDING CLIMATE-RESISTANT PLANTS WITH X-RAY TECHNOLOGY**

Climate change is advancing - can crops cope with the changing conditions? To find out which varieties are as robust as possible against environmental influences, we are experimenting in a state-of-the-art climate chamber with an integrated X-ray system.

2 **X-RAY TECHNOLOGY IN FIELD TRIALS**

Modern agriculture increasingly relies on the use of high-tech machines and vehicles. Most important is the minimization of labor costs and maximization of crop yields. With the aid of X-ray technology the field vehicle DeBiFix determines the biomass of wheat directly in the field.

3 **3D ANALYSIS AT THE HIGHEST RESOLUTION SCALE: NANO-CT IN THE LAB**

The drive towards ever increasing resolution requirements in materials analysis demands the continuous development of methods, components and instruments. We show our fields of work with examples from current research topics and our laboratory equipment for highest resolution analysis.

4 **HIGH-RESOLUTION 2D AND 3D REGION-OF-INTEREST IMAGING OF LARGE PARTS: ROBOCT MAKES IT POSSIBLE**

When parts are too large or complex shaped to be inspected in detail, it's time for RoboCT! Two cooperating industrial robots move the X-ray components in a highly flexible way around region-of-interests of e.g. car bodies or aerostructures allowing high-resolution 2D and 3D imaging.

5 **FROM MINING TO FOOD TO RECYCLING: APPLICATIONS OF DUAL-ENERGY X-RAY SORTING**

Materials and products are becoming increasingly complex. Dual-Energy X-Ray sorting enables qualitative and quantitative sorting of materials in a wide variety of material streams. This method is used throughout the entire product life cycle, from raw material to product, security control and recycling.

6 **DIGITIZATION OF CULTURAL HERITAGE**

The three dimensional digitization of historical or culturally valuable objects using X-ray computed tomography creates the opportunity of gaining knowledge for research, restoration or exhibition. Presenting selected examples, we show the progress and processing of the huge amounts of data in digitization.

7 **POSSIBLE APPLICATIONS OF THE SMALLEST X-RAY SYSTEM**

The CTportable is our smallest CT system. Thanks to the low weight and compact size, the systems is portable. It can be easily used for measurements at changing or previously unimaginable locations.

8 **XXL-CT AND HIGH-ENERGY-CT**

X-ray analysis of archaeological soil finds, entire automobiles or massive cast components: High-energy CT allows a non-destructive and high-resolution insight into the internal structures of large-volume or massive test parts. Discover the superlative XXL-CT system!