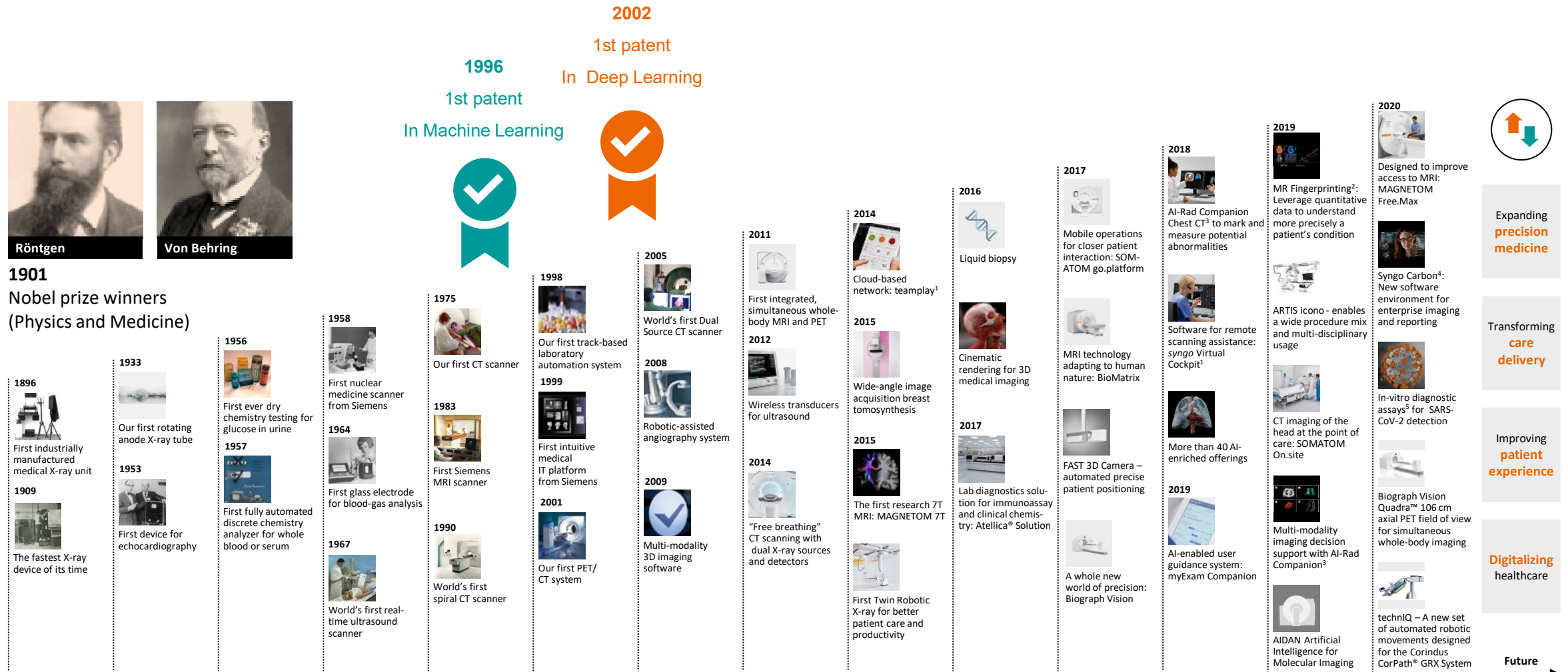
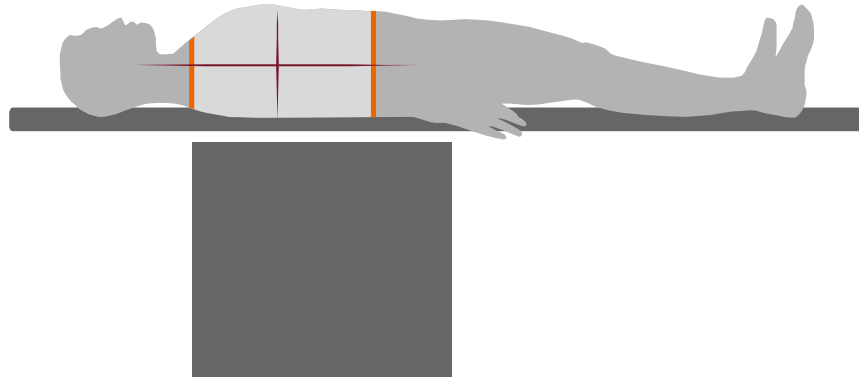


# More than a quarter century of work in AI



The products/features and service offerings (mentioned herein) are not commercially available in all countries and for all modalities. Their future availability cannot be guaranteed. | 1 Precondition: Expert-i enabled modality from Siemens Healthineers. | 2 MR Fingerprinting is currently under development and not commercially available. It is not for sale in the US or other countries. Its future availability cannot be guaranteed. | 3 AI-Rad Companion consists of several products that are (medical) devices in their own right, and products under development. AI-Rad Companion is not commercially available in all countries. Future availability cannot be ensured. AI-Rad Companion Chest X-ray is not for sale in the United States. | 4 Syngo Carbon consists of several products which are (medical) devices in their own right. Some products are under development and not commercially available. Future availability cannot be ensured. | 5 The SARS-CoV-2 molecular and antibody tests have not been FDA-cleared or approved. These tests have been authorized by FDA under an EUA for use by authorized laboratories. The molecular test has been authorized only for the detection of nucleic acid from SARS-CoV-2, not for any other viruses or pathogens. The antibody test has been authorized only for detecting the presence of antibodies against SARS-CoV-2, not for any other viruses or pathogens. These tests are only authorized for the duration of the declaration that circumstances exist justifying the authorization of emergency use of in vitro diagnostics for detection and/or diagnosis of COVID-19 under Section 564(b)(1) of the Act, 21 U.S.C. § 360bbb-3(b)(1), unless the authorization is terminated or revoked sooner. Product availability may vary from country to country and is subject to varying regulatory requirements.

# The underestimated challenge – frequency and effect of incorrect isocentering in patient positioning


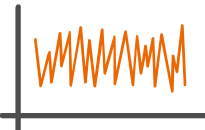


In **95%** of all examinations, isocentering is incorrect  
About **2.6 cm** mean deviation

**3 cm**

A vertical dimension line with horizontal caps at the top and bottom, indicating a 3 cm measurement.



**+ 18%** peripheral dose   
**+ 6%** noise 

The text describes the effects of incorrect isocentering: an 18% increase in peripheral dose (indicated by a radiation symbol) and a 6% increase in noise (indicated by a waveform icon).

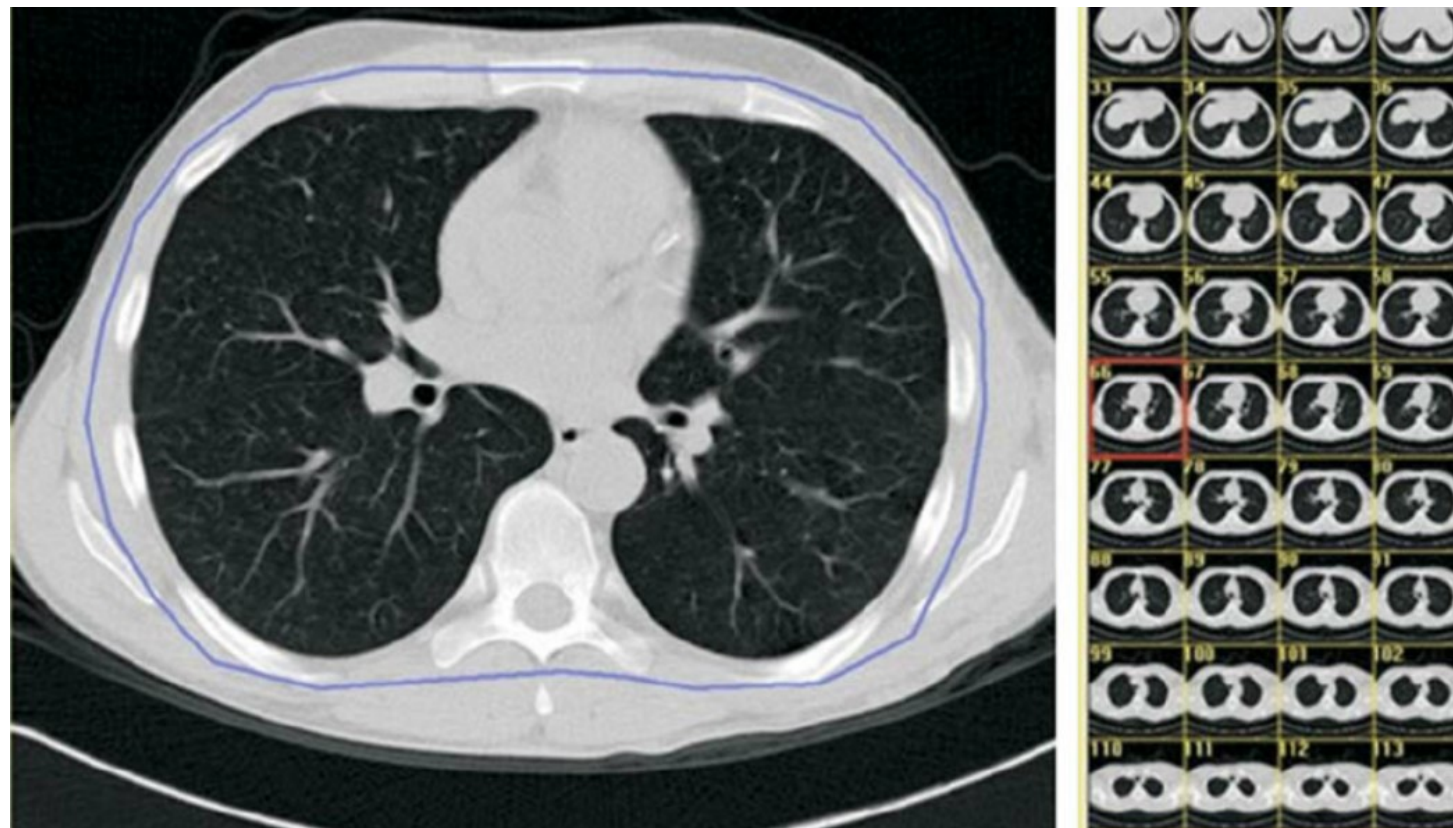
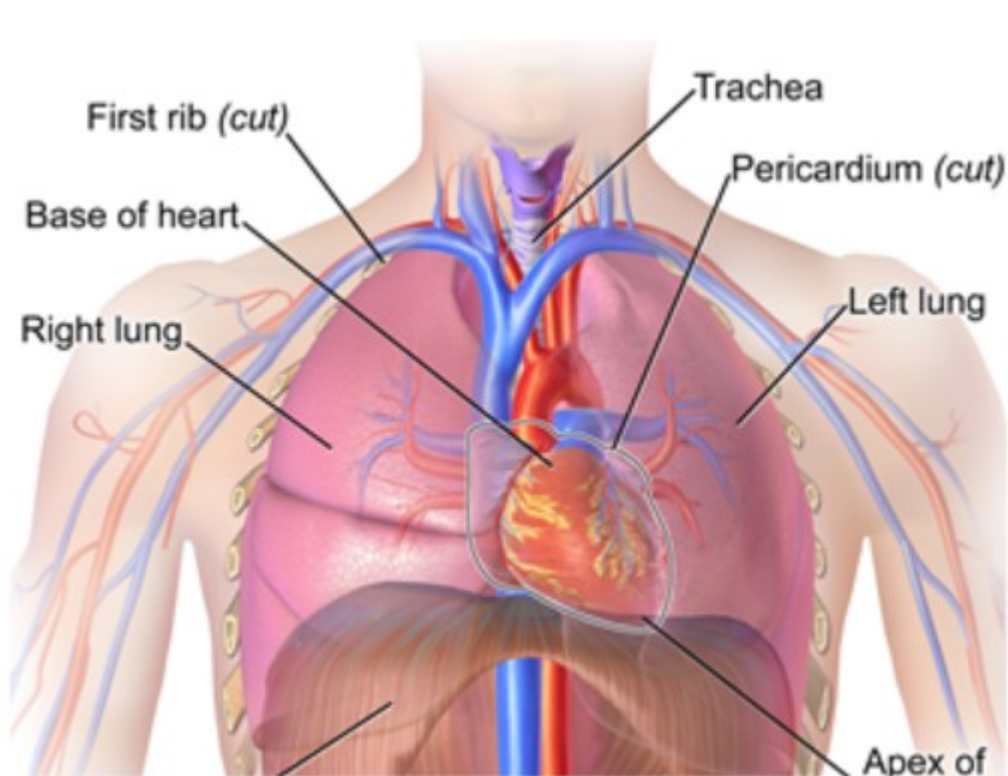
# AI to make precise positioning your standard



**Video and Infrared camera**  
**AI driven technology**

# Thoracic Computer Tomography Scan

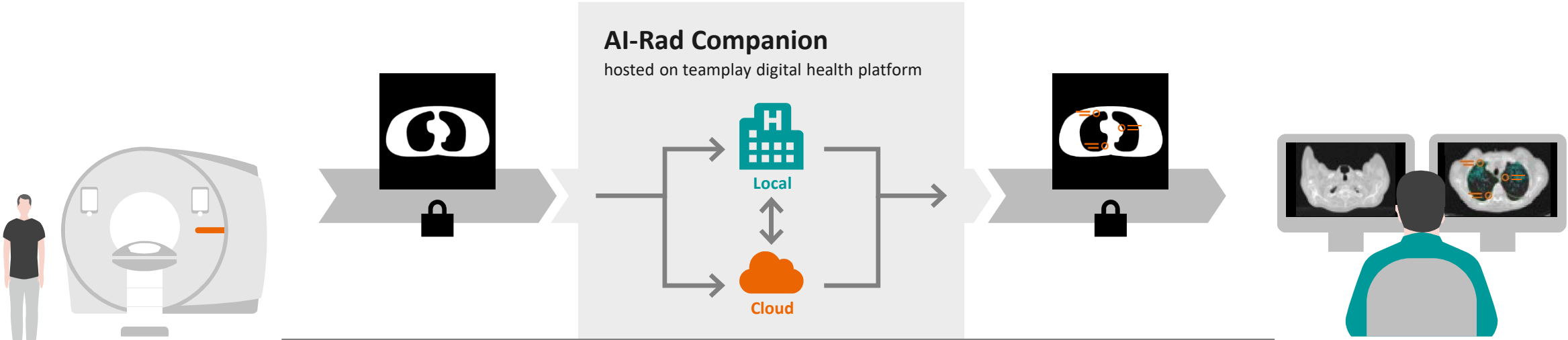
## The radiologist's workload



About 500 images to be analyzed by the radiologist

# Chest CT with AI-Rad Companion<sup>1,2</sup>

## Your augmented reading aide

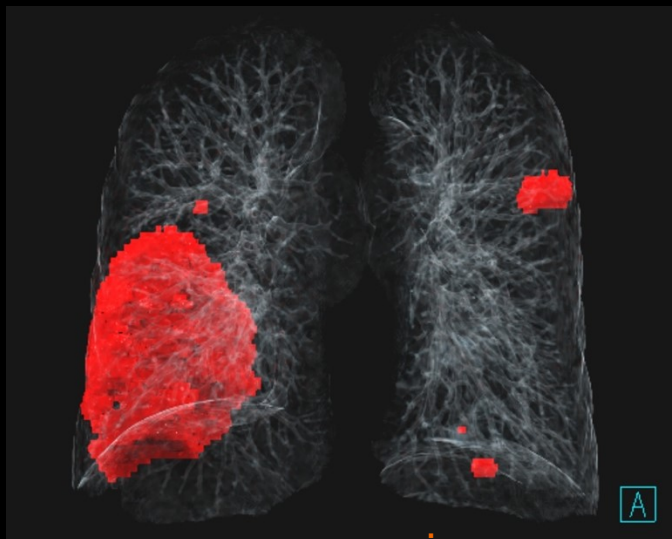


| Multi-organ approach |          | Functionalities |              |                        |  |
|----------------------|----------|-----------------|--------------|------------------------|--|
| Heart                | Aorta    | Measuring       | Highlighting | Follow-up <sup>3</sup> |  |
| Lung                 | Vertebra | Reporting       | Segmentation |                        |  |

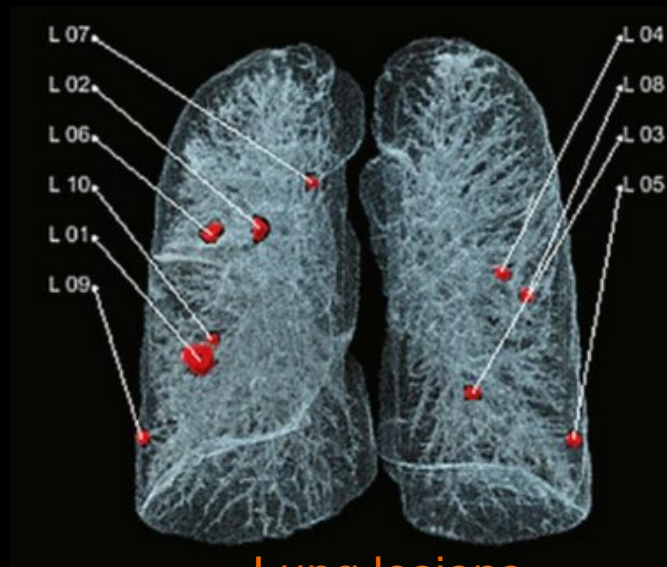
Courtesy of Klinikum Nürnberg, Nuremberg, Germany. **1** Tested and validated for DICOM Images from CT scanners of Siemens Healthineers, GE Healthcare and Philips Healthcare. **2** AI-Rad Companion Chest CT is not commercially available in all countries, and its future availability cannot be ensured. **3** Lung lesion follow-up is pending 510(k) clearance, and is not yet commercially available in the United States

# Thoracic Computer Tomography scan

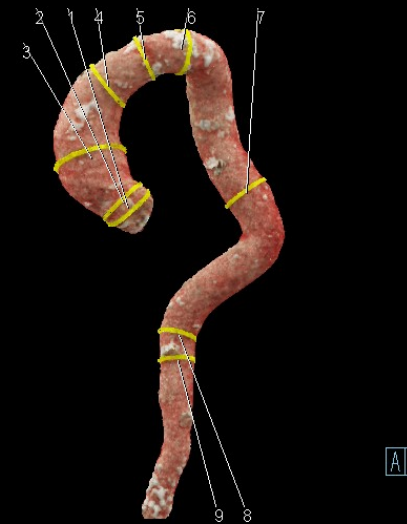
## The results provided by AI in few minutes



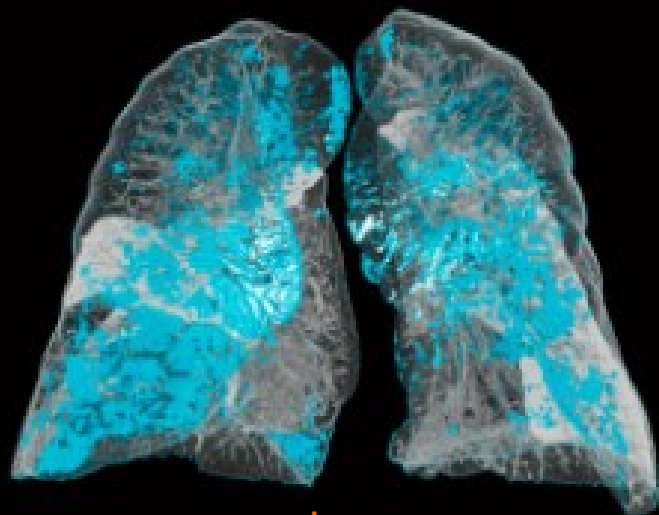
pneumonia



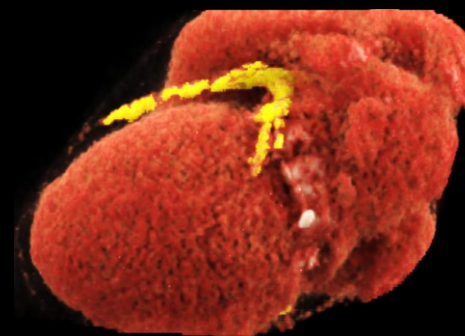
Lung lesions



Aorta diameters

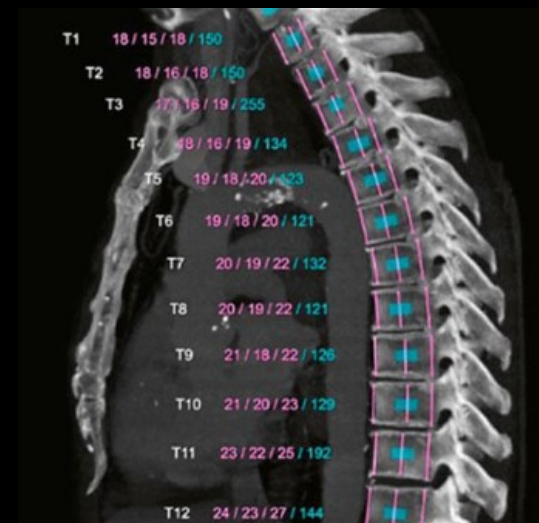


emphyzema



Coronary arteries

calcium load

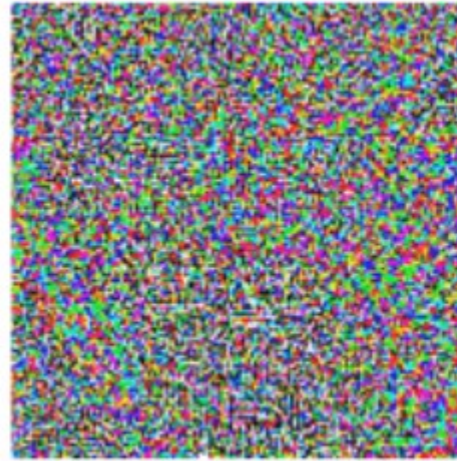


labelling and height of the vertebrae

# When a panda is predicted to be a gibbon



+ .007 ×



=



“panda”  
57.7% confidence

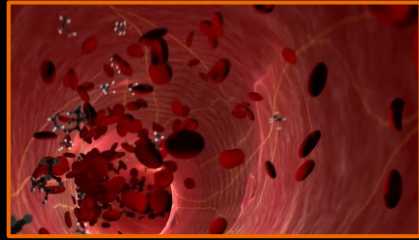
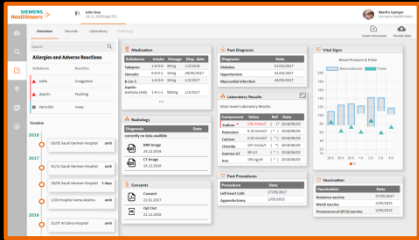
“gibbon”  
99.3 % confidence

[https://www.researchgate.net/figure/illustrates-such-an-example-where-an-image-of-a-Panda-is-predicted-as-a-Gibbon-with-high\\_fig1\\_353284886](https://www.researchgate.net/figure/illustrates-such-an-example-where-an-image-of-a-Panda-is-predicted-as-a-Gibbon-with-high_fig1_353284886) [accessed 30 May, 2022]

human beings are also fallible  
83% of radiologists do not see the gorilla



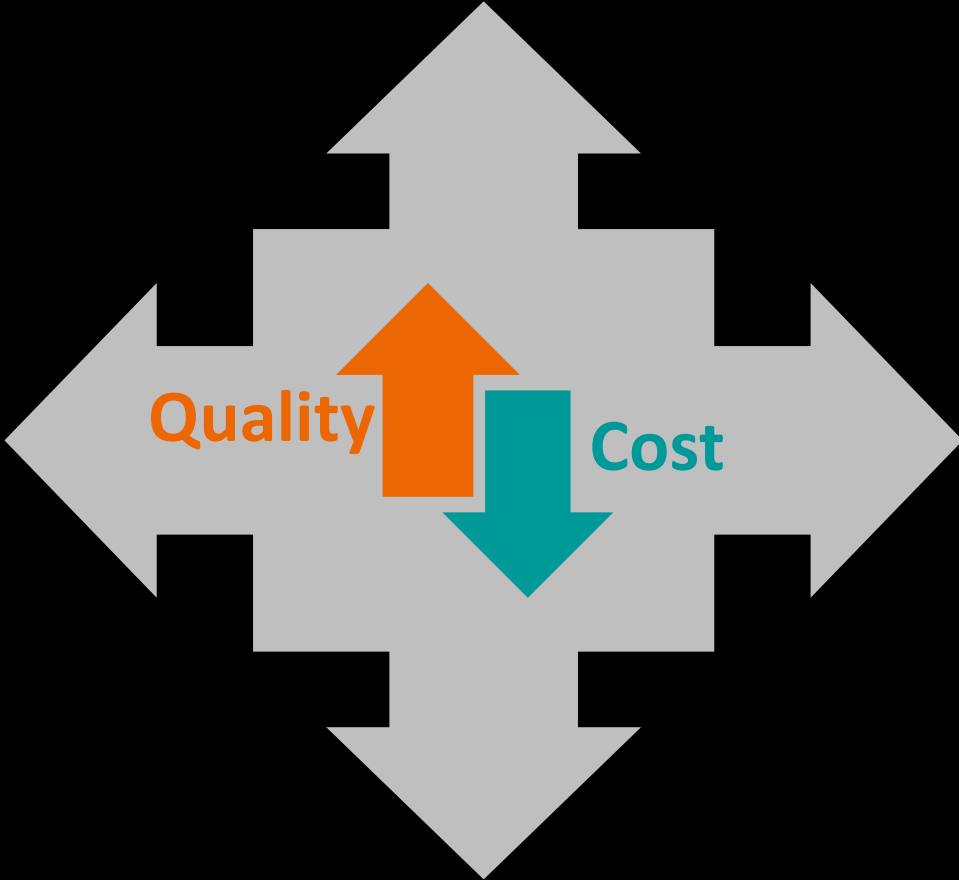
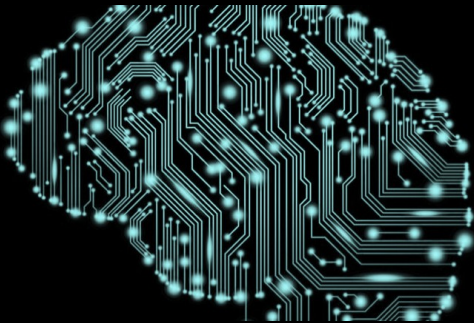




Health Digital twin –  
lifelong, personalized  
physiological model  
updated with each  
scan, exam

Person-centric  
prevention and  
holistic treatment

# AI in Healthcare



**Access  
to Medical Care for all**