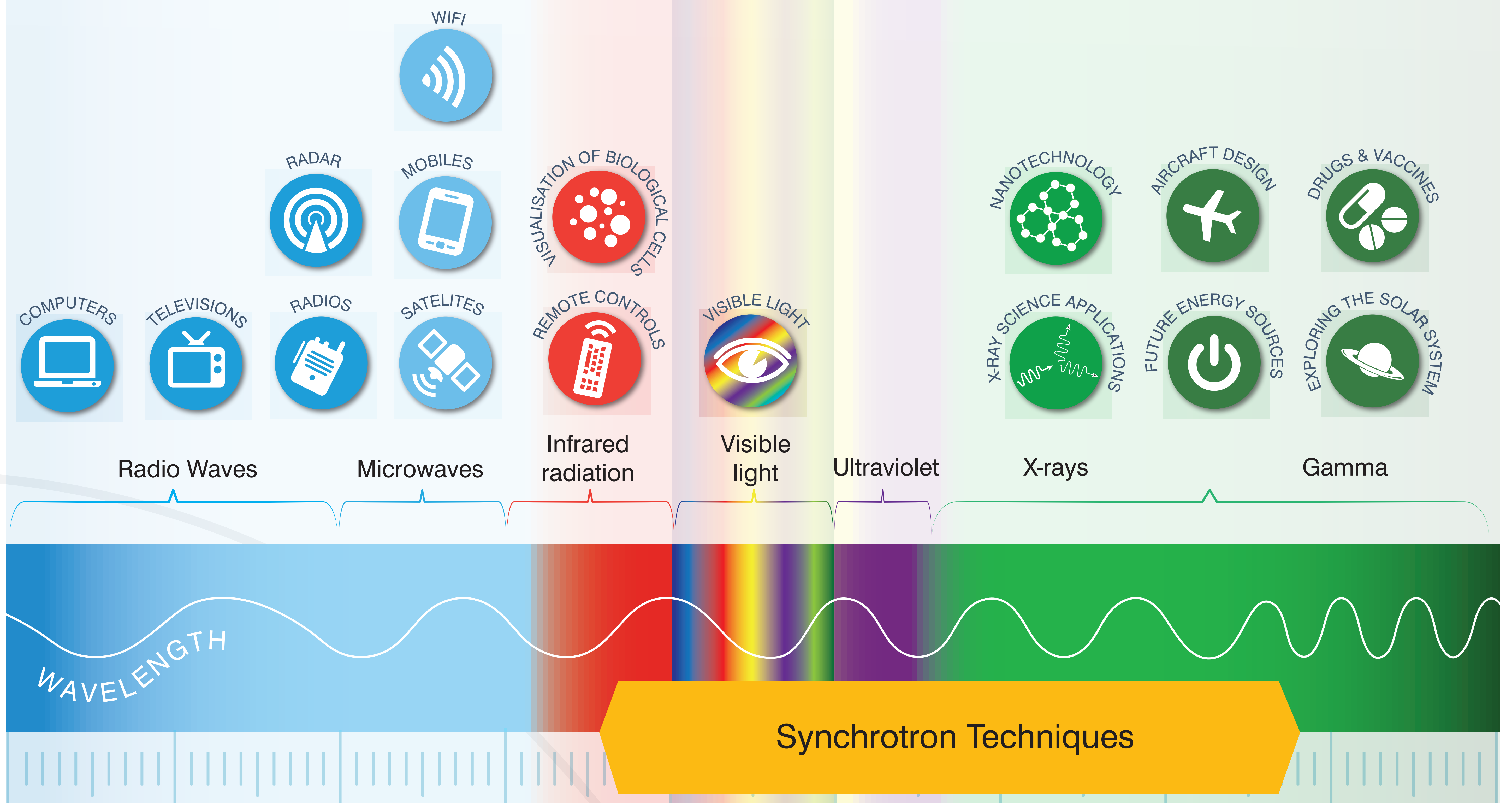


Electromagnetic Spectrum



We need to match the length scale of the item we want to look at with the wavelength of light that shines through it. For example, radio waves have a longer wavelength so can be used to detect larger things like buildings. When a wave is more compact, we can look at much smaller things, from molecules to atoms.

At Diamond, the synchrotron produces different wavelengths of light, including infrared, visible, ultraviolet light and X-rays. Most of our beamlines use X-rays through different techniques for this including imaging, scattering, crystallography and spectroscopy.

