There are two answers to this. The power in the neutron source is directly related to how many neutrons the facility produces. The more neutrons, the more detailed and realistic the results of research are. The more powerful the neutron source is, the greater its use to research.
ESS is designed with the aim of providing entirely new opportunities for detailed material studies within a large number of fields of research. Europe's best researchers will compete for the chance to go to Lund.
Traditionally, neutron research is a field in which Europe leads other countries and parts of the world – the USA is considered to be the leader in many other fields of research, which is also reflected in the fact that many Nobel Prize winners are American. Above all, the reason is that today there are a large number of neutron sources in Europe. However, many present-day facilities have been in operation for several decades, and by around 2020, several of them will have been taken out of operation.
The new American Spallation Neutron Source (SNS) is already in operation and the Japanese J-PARC is planned to be finished in 2008. However, still no decision has been made in Europe about where the new European spallation facility, ESS, will be built. If Europe wants to maintain its leading position within neutron research, ESS needs to be finished around 2020, which means that planning must already be started now.