Abstract/Description

- **Tango Controls** is a **free** open source device-oriented controls **toolkit for controlling any kind of hardware or software** and building SCADA (supervisory control and data acquisition) systems.
- **Tango Controls** is operating system independent and supports C++, Java and Python for all the components.

www.tango-controls.org

Technology Transfer proposal BSBF 2022

Original/Potential Field of Application

- The technology was developed for controlling the heterogenous environment of a modern synchrotron light source
- The software used in synchrotron facilities can be compared with the software for stock markets – huge amount of data must be displayed on the monitor in real time and being processed and being saved in databases for post processing.
- Tango Controls **exists for >20** years and has proved itself as a reliable toolkit across a wide range of environments

- The technology can be applied in any multi-device environment requiring an overall control and visualisation.
- Examples include research infrastructures, factories, astronomy, telecopes and space applications.

Proposal SWOT Analysis

Strengths

- Full solution for control
- Very well documented and high reliability
- Proven in a wide range of applications
- Professional technical support
- Free and open source
- Well designed and rich API

Weaknesses

- None

Opportunities

- Exploitation in any environment where control and visualisation of a heterogenous set of devices is required
- The software is open source and free making it cost effective

Threats

- As far as known, this is a unique solution

IPR Status & Contact Information

- The technology is open source and free for use
- The core TANGO Controls consortium is a 15 strong community with many associates

- For further information, the contact points are Andy Gotz (goetz@esrf.eu) and Ed Mitchell (mitchell@esrf.eu)
- The European Synchrotron is an intergovernmental research organisation based in Grenoble, France.
- It develops and operates the world's **first high-energy fourth generation synchrotron light source**.
- Serving over 7,000 visitors from academia and industry every year, it provides state-of-the-art synchrotron X-rays for the study of materials and living matter.