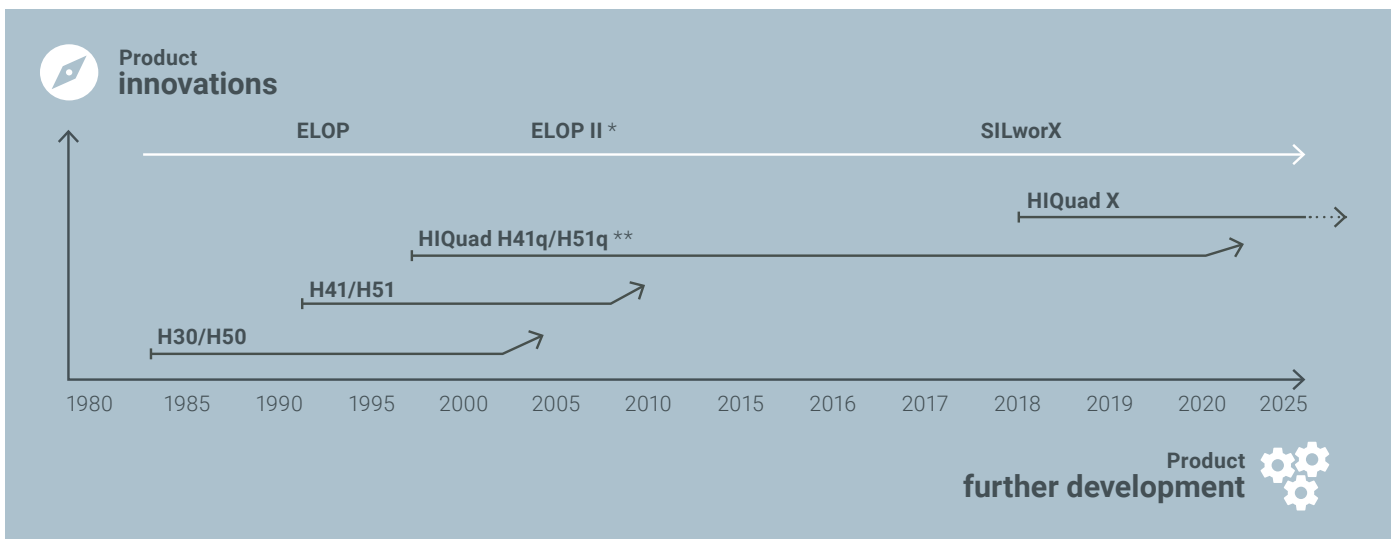




HIQuad Lifecycle & Modernization

HIMA products give you maximum, long-term plant availability. To ensure this, we continually modernize our product portfolio with new technologies. Compatible successor products ensure your safety system continues to operate smoothly many years after installation. This reduces life-cycle costs, avoids unplanned downtime, and ensures investment protection for your assets.

HIQuad H41q/H51q was introduced to the market in 1997 as the third generation of central modules for certified programmable safety systems. In 2018, the fourth generation of central modules was introduced to ensure the sustainability of the HIQuad system family. The new central modules support a wide variety of I/O modules from the previous generation. The combination of the reliable HIQuad I/O modules and the new central modules is named HIQuad X. This guarantees maximum compatibility for field installations and minimum modernization efforts.



* ELOP II based logic can be converted to SILworX.

** For HIQuad to HIQuad X modernization, the main part of I/O modules including field wiring will remain untouched.

TECHNICAL FACTS

PRODUCT LIFECYCLE MANAGEMENT

As HIQuad X is available now, H41q/H51q central modules have been moved to the replacement phase of the HIMA product lifecycle. The H41q/H51q central modules will be shifted to the passive phase in 2020. The passive phase is expected to last 10 years with full service available. The I/O level will remain unchanged and will be continued in HIQuad X.

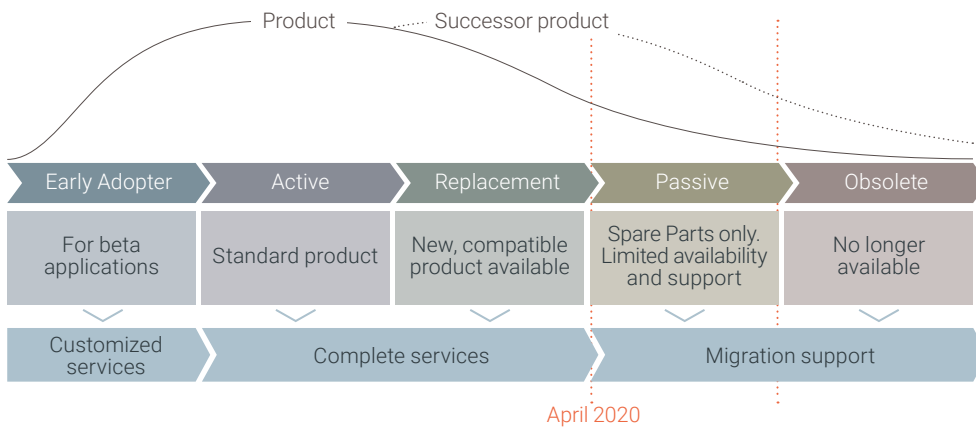


Figure 2: Overview of the product lifecycle phases

HIQuad X completes our Smart Safety platform. All of the new features are now also available for HIQuad X, including:

- SILworX as one engineering tool for all system families
- State-of-the-art security concept
- Enhanced performance especially for REAL calculations
- Comprehensive communication (SafeEthernet, HIPRO-S-V2)


Extensions, Upgrades, and Modernization

Systems, technology, and standards change continuously. To ensure the long-term safety and availability of your plants, our experts will assist you to keep them up to date during operation. As part of our modernization services, our experts support you with on-site analysis and advise you on all options and technologies to keep your plant up to date. This includes consulting on system upgrades, maintaining your equipment, and updating to compatible successor models. Our modernization services include upgrade planning, logic conversion from ELOP II to SILworX, and installing your systems in accordance with the latest safety standards.

Modernizations to HIQuad X will have additional benefits:

- **Seamless modernization**
HIQuad I/Os including field wirings can be kept as they are, which reduces costs as compared to new installations. Software engineering is supported through automatic logic conversion, reducing engineering effort and potential sources of errors.
- **Reduced downtime**
Unchanged parts can be tested more easily, reducing the downtime required for modernization.
- **Modernization flexibility**
You have complete freedom to perform modernization in a single step or in multiple phases.
- **Improved safety and security**
HIQuad X provides you the optimal basis to bring your system to the latest standard of functional safety according to IEC 61511 and automation security according to IEC 62443.
- **Better performance**
State-of-the-art technology offers improved features, such as: reduced cycle time, improved reload capabilities, increased system availability, less engineering effort, and improved maintenance.
- **Continued support:**
Products that enter the passive phase will have limited availability and will not receive updates or new features. HIQuad X fully supports new safety features and future certifications.

Find out more about HIQuad X online:

 www.hima.com/en/products-services/hiquad-x