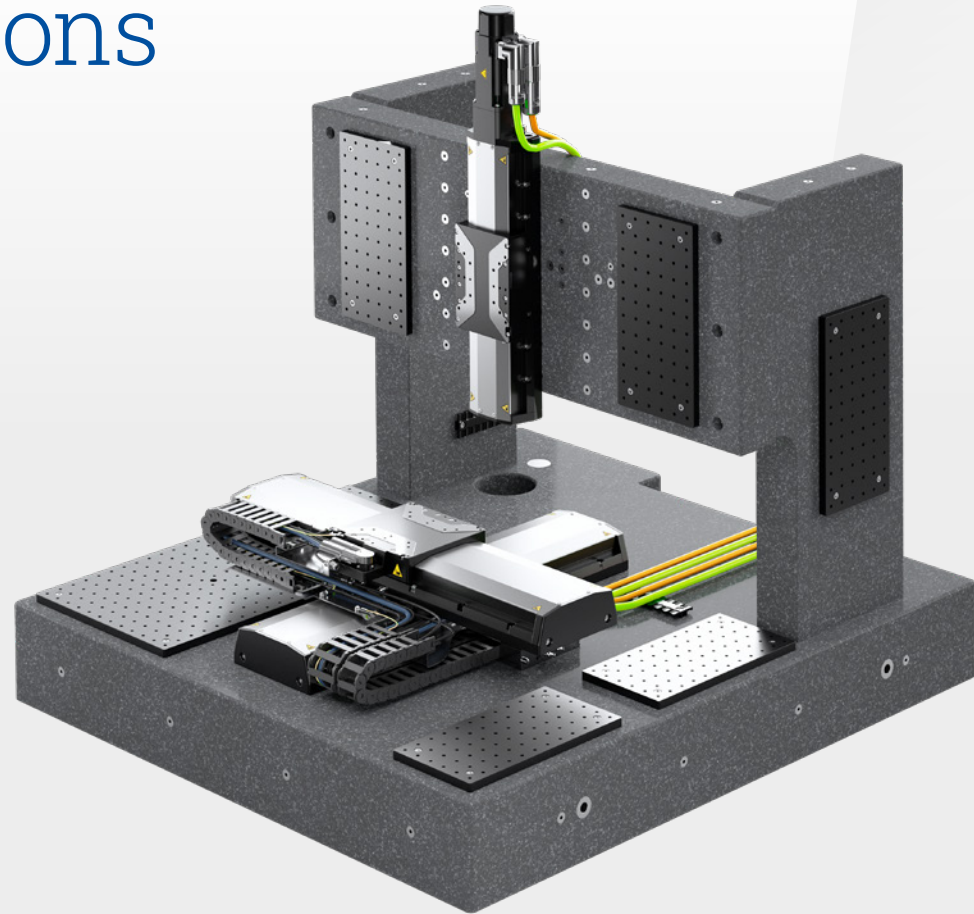


# Preconfigured Multi-Axis System for Industrial Applications

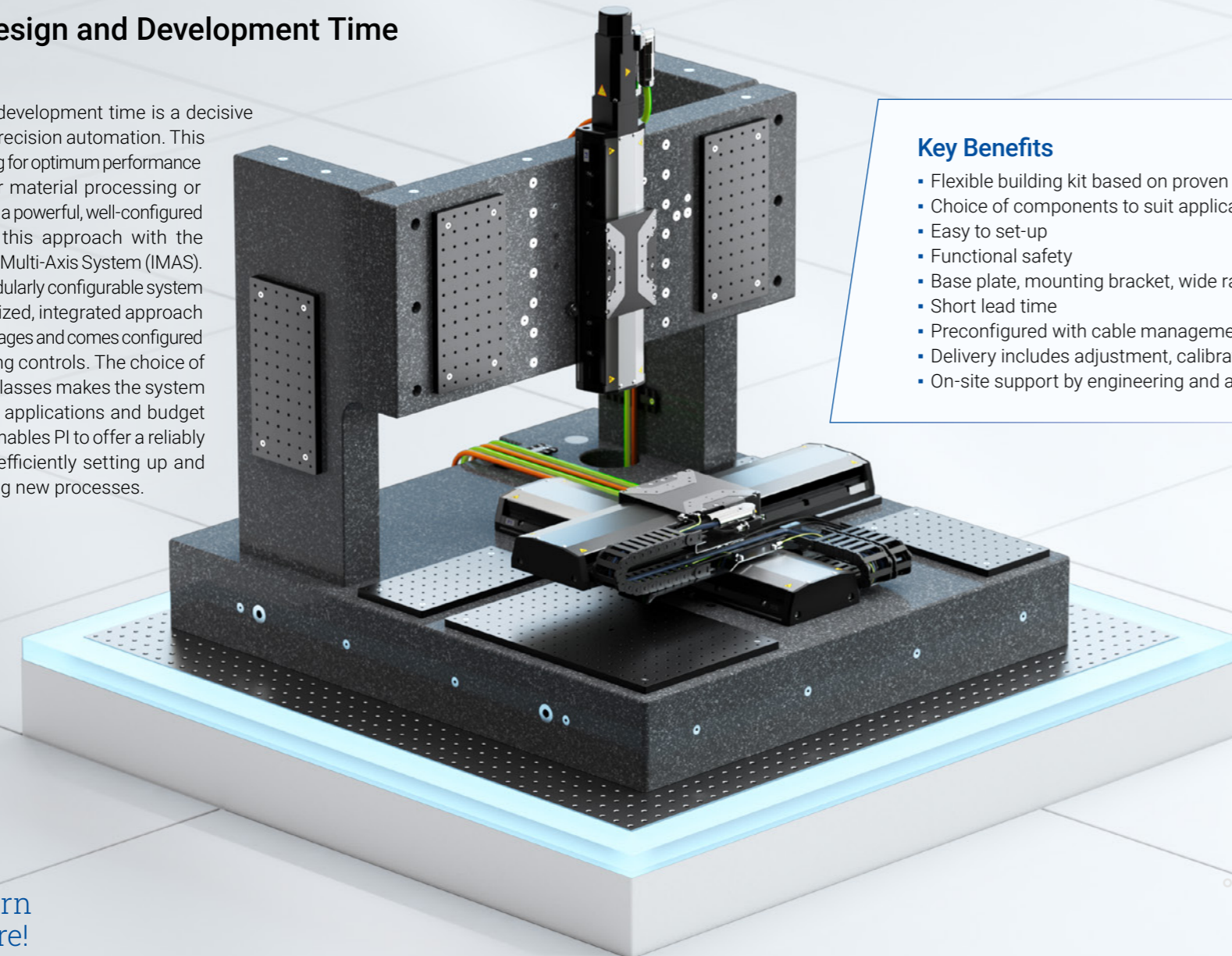
Shape the Future of Precision Automation



# Efficient Setup and Process Integration

## Optimizing Design and Development Time

Reducing design and development time is a decisive competitive factor in precision automation. This is why companies striving for optimum performance in areas such as laser material processing or metrology should rely on a powerful, well-configured system. PI supports this approach with the configurable Integrated Multi-Axis System (IMAS). The globally proven, modularly configurable system is based on a standardized, integrated approach for different expansion stages and comes configured and fully tuned including controls. The choice of several performance classes makes the system suitable for numerous applications and budget requirements. All this enables PI to offer a reliably available solution for efficiently setting up and successfully integrating new processes.



### Key Benefits

- Flexible building kit based on proven components
- Choice of components to suit application requirements
- Easy to set-up
- Functional safety
- Base plate, mounting bracket, wide range of accessories
- Short lead time
- Preconfigured with cable management
- Delivery includes adjustment, calibration and test reports
- On-site support by engineering and application experts

### XY Axis – Workpiece Positioning

- Choice between high-load XY linear stages with various travel ranges from 102 mm to 407 mm
- XY drag chain cable management for smooth integration
- Stage tuning for selectable payloads
- Metrology options: XY orthogonality to 35 to 20  $\mu$ rad, axis mapping, 2D mapping
- High dynamic motors in various performance classes
- Connector for purge air, side seal, and hard cover to protect against particles

>> X-417 Integrated Multi-Axis System

### Motion Control

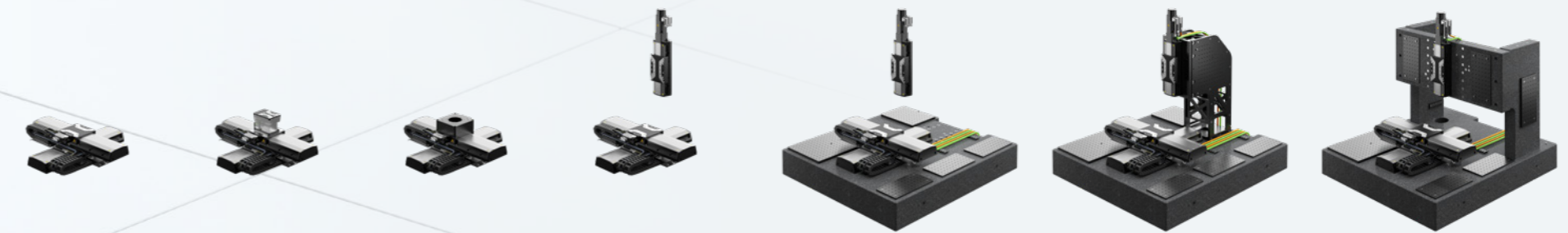
- ACS EtherCAT® network motion control
  - >> G-901 Motion Controller in three versions
- Synchronization of motion to laser/event for high accuracy cutting at high speeds
  - >> PEG / Laser Control Module\*
- Servo control for improved tracking at higher duty cycles and for disturbance rejection
  - >> ServoBoost™\*
- Support of higher-level languages: C, C#, .Net, LabView™, MATLAB®, Visual Basic®, Python

\*Optional add-ons

### Z Axis – Adjustment

- High-load linear stage with holding brake
- Various travel ranges from 102 mm to 204 mm
- Available as a folded version for a reduced installation space in Z axis
- The Z axis can also be mounted directly on the XY cross table or to a fixed structure, travel range 26 mm
- A supplementary rotary stage will be available in the future
- Robust industrial IP65 connectors for flexible cable exit

>> X-417 Integrated Multi-Axis System



Scalable Standard Levels of Integration with Flexible Travel Ranges, Payloads, Mounting Options and Optional Accessories



Learn  
more!

# PI

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