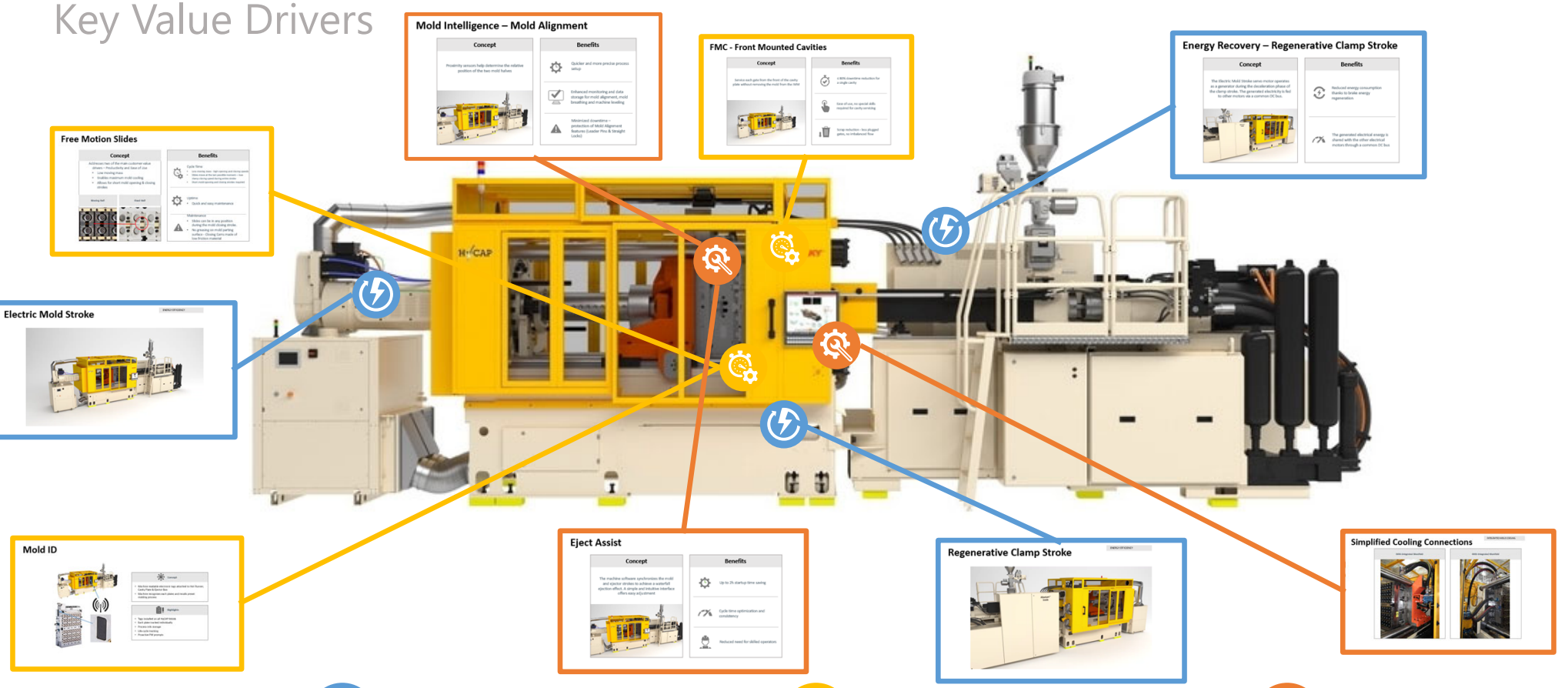
HyCAP4 System

Key Value Drivers



Energy Efficiency

Productivity

Ease of Use

Mold Intelligence – Mold Alignment

Concept

Proximity sensors help determine the relative position of the two mold halves

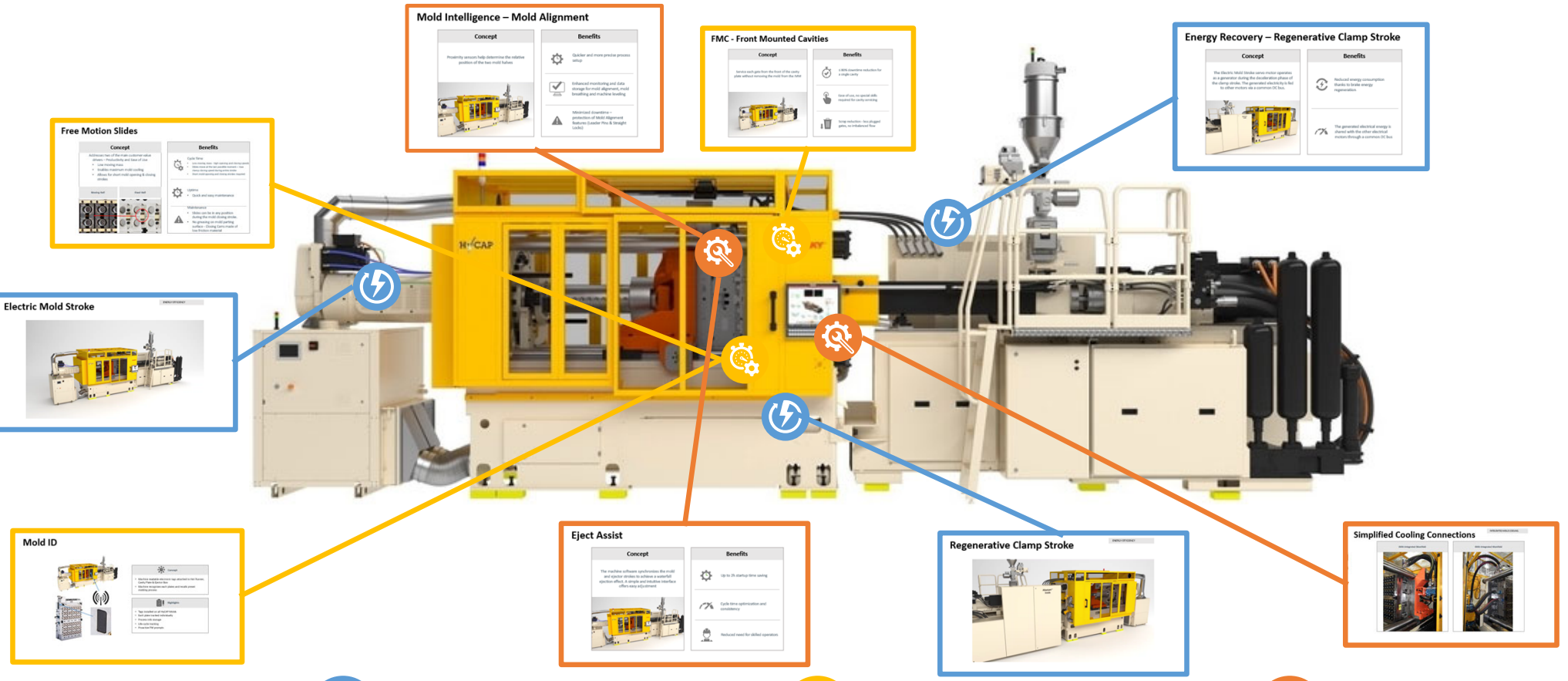
Benefits

Quicker and more precise process setup

Enhanced monitoring and data storage for mold alignment, mold breathing and machine leveling

Minimized downtime – protection of Mold Alignment features (Leader Pins & Straight Locks)

HyCAP4 System



Energy Efficiency

Productivity

Ease of Use

FMC - Front Mounted Cavities

Concept

Service each gate from the front of the cavity plate without removing the mold from the IMM

Benefits

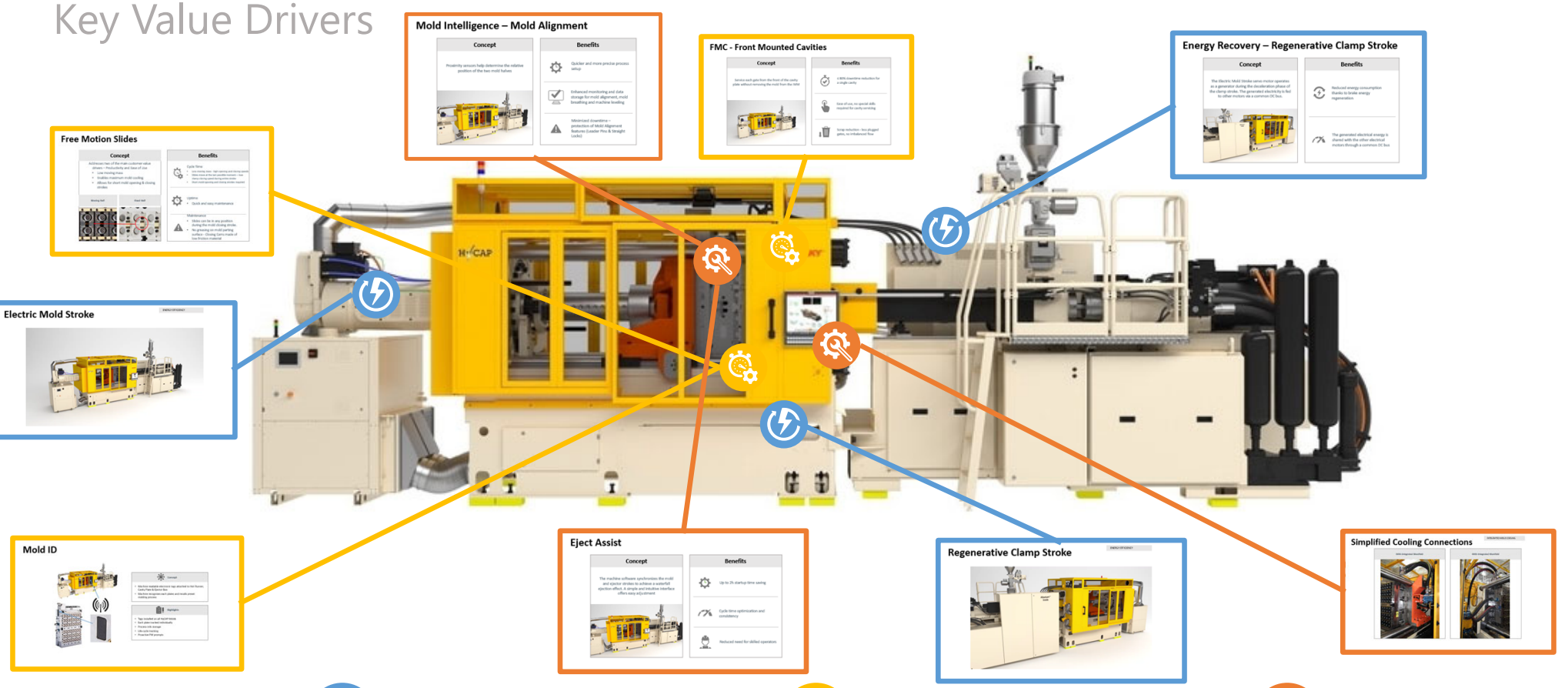
≤ 80% downtime reduction for a single cavity

Ease of use, no special skills required for cavity servicing

Scrap reduction - less plugged gates, no imbalanced flow

HyCAP4 System

Key Value Drivers



Energy Efficiency

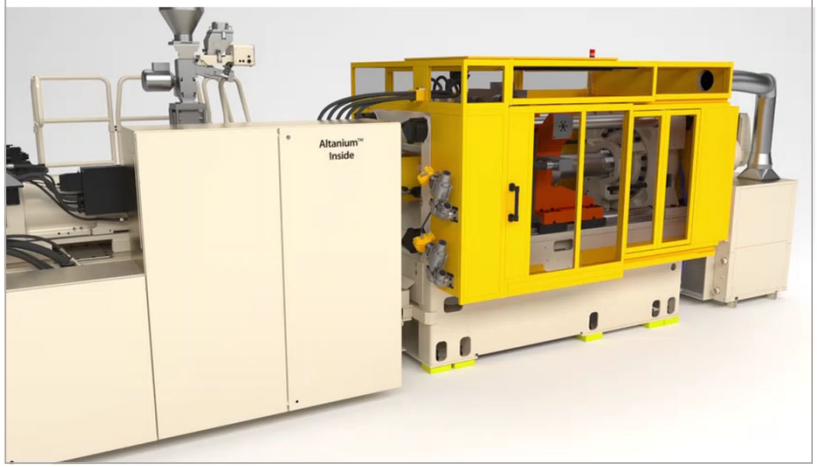
Productivity

Ease of Use

Energy Recovery – Regenerative Clamp Stroke

Concept

The Electric Mold Stroke servo motor operates as a generator during the deceleration phase of the clamp stroke. The generated electricity is fed to other motors via a common DC bus.



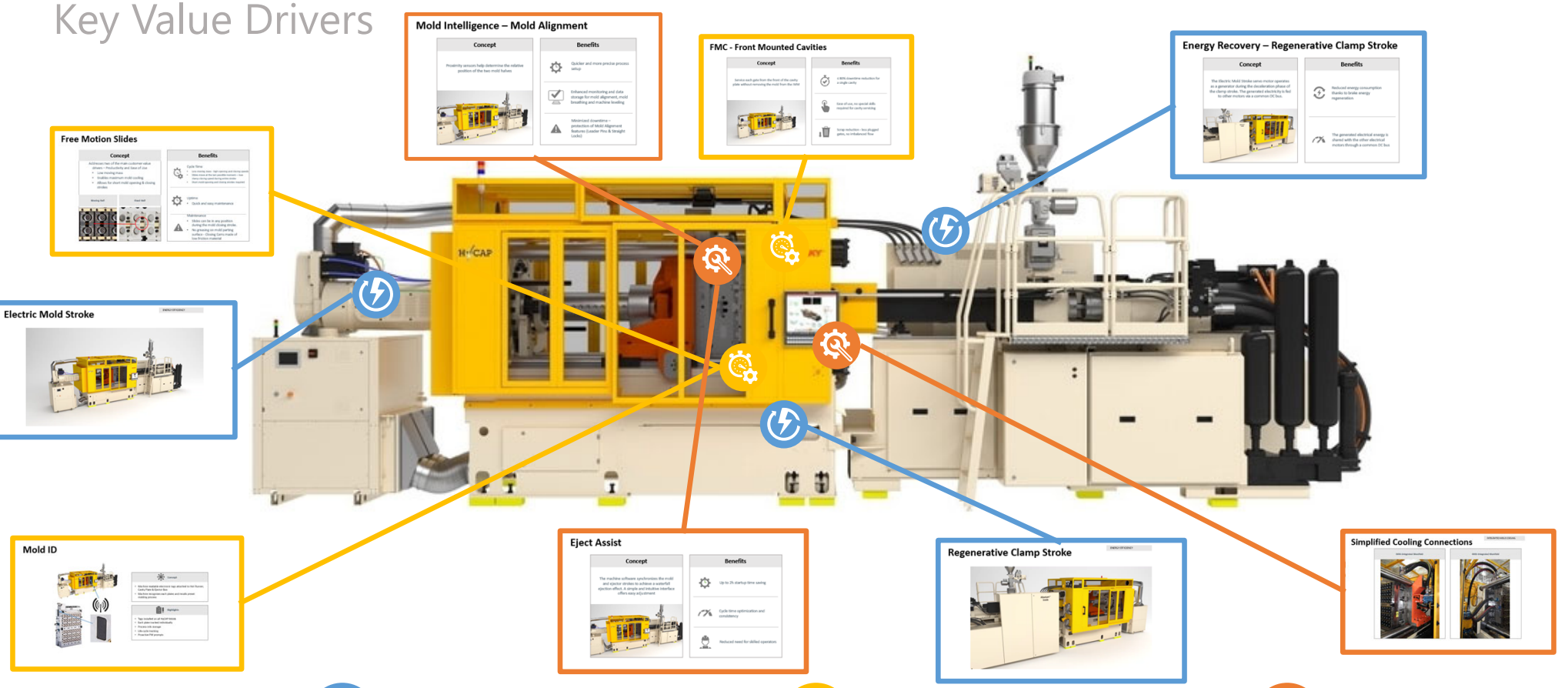
Benefits

Reduced energy consumption thanks to brake energy regeneration

The generated electrical energy is shared with the other electrical motors through a common DC bus

HyCAP4 System

Key Value Drivers



Energy Efficiency

Productivity

Ease of Use

Simplified Cooling Connections

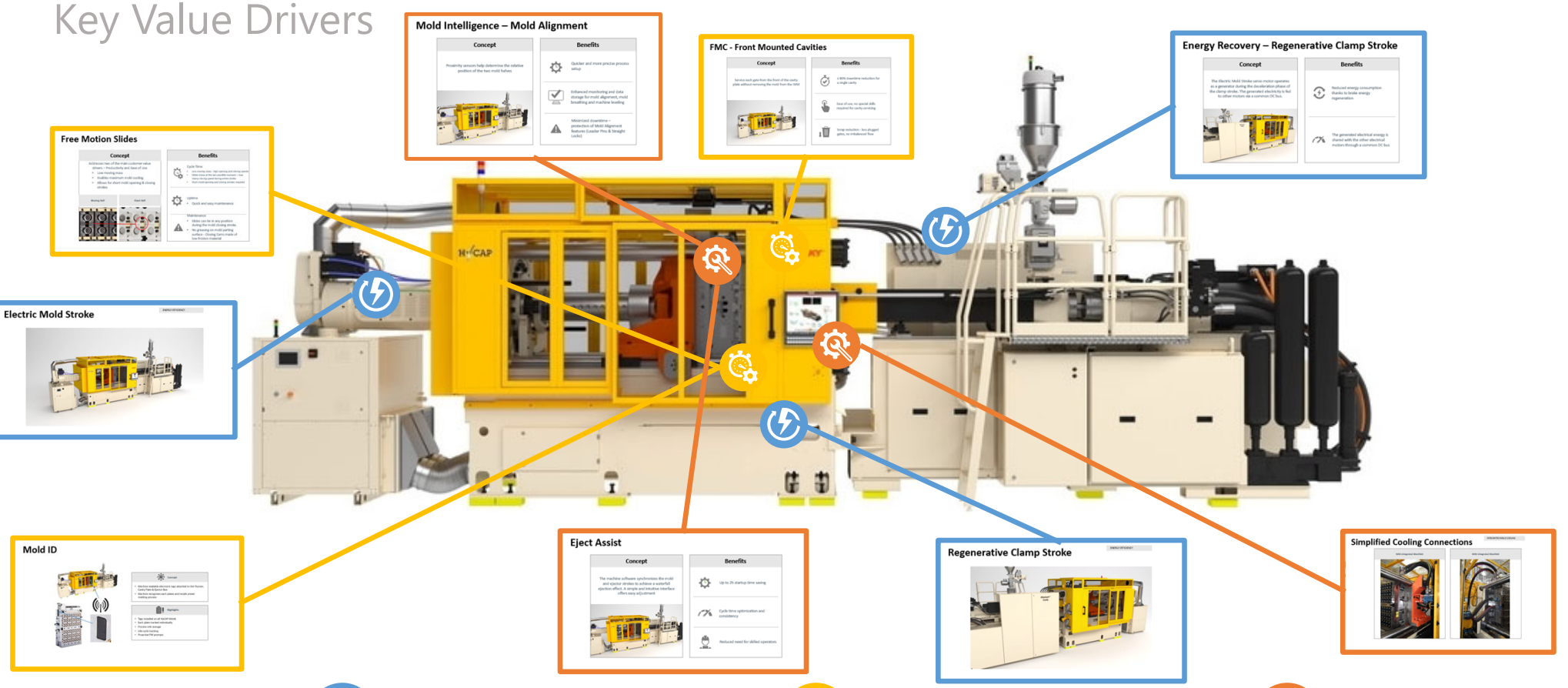
INTEGRATED MOLD COOLING

With Integrated Manifold

With Integrated Manifold

HyCAP4 System

Key Value Drivers



Energy Efficiency

Productivity

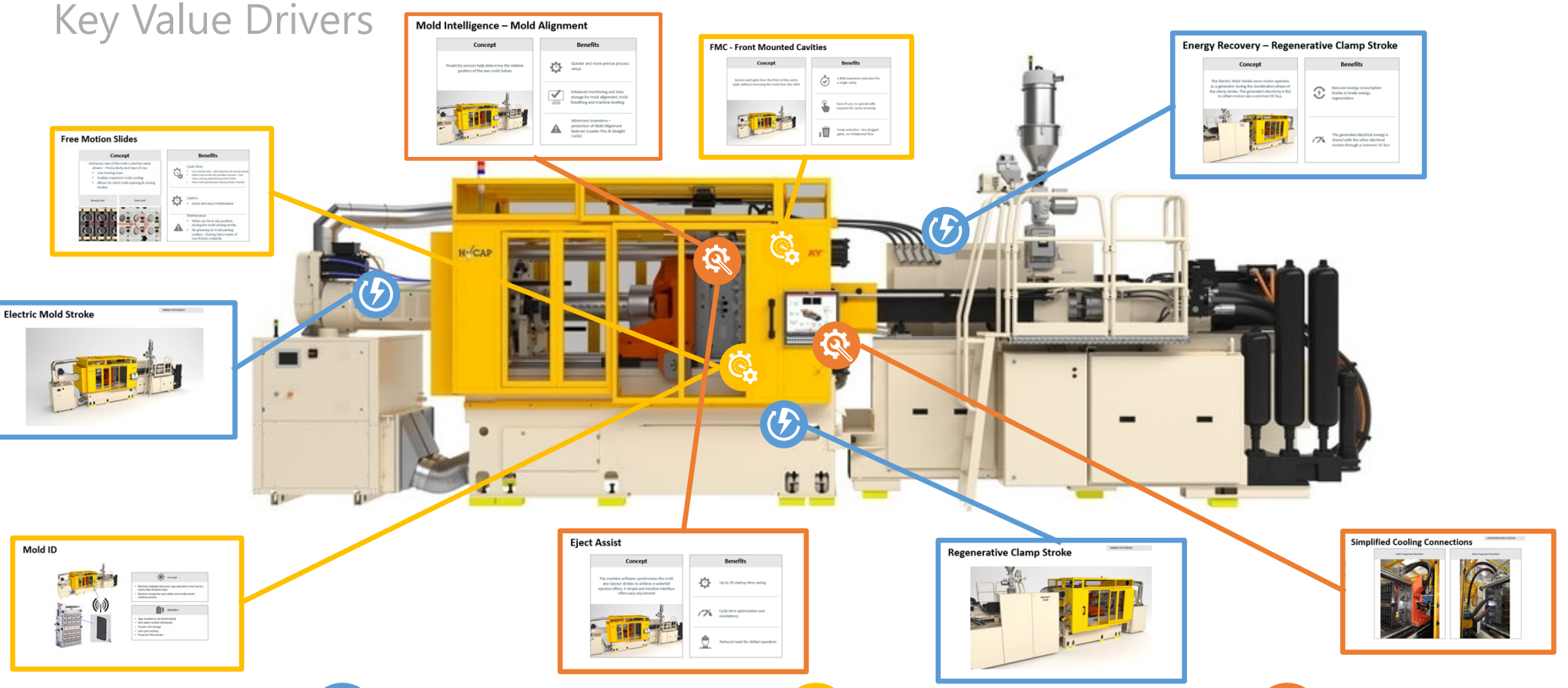
Ease of Use

Regenerative Clamp Stroke

ENERGY EFFICIENCY

HyCAP4 System

Key Value Drivers



Energy Efficiency

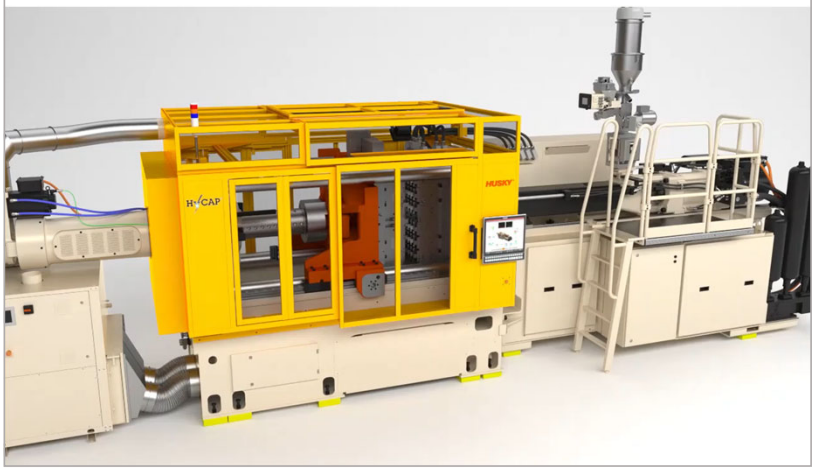
Productivity

Ease of Use

Eject Assist

Concept

The machine software synchronizes the mold and ejector strokes to achieve a waterfall ejection effect. A simple and intuitive interface offers easy adjustment

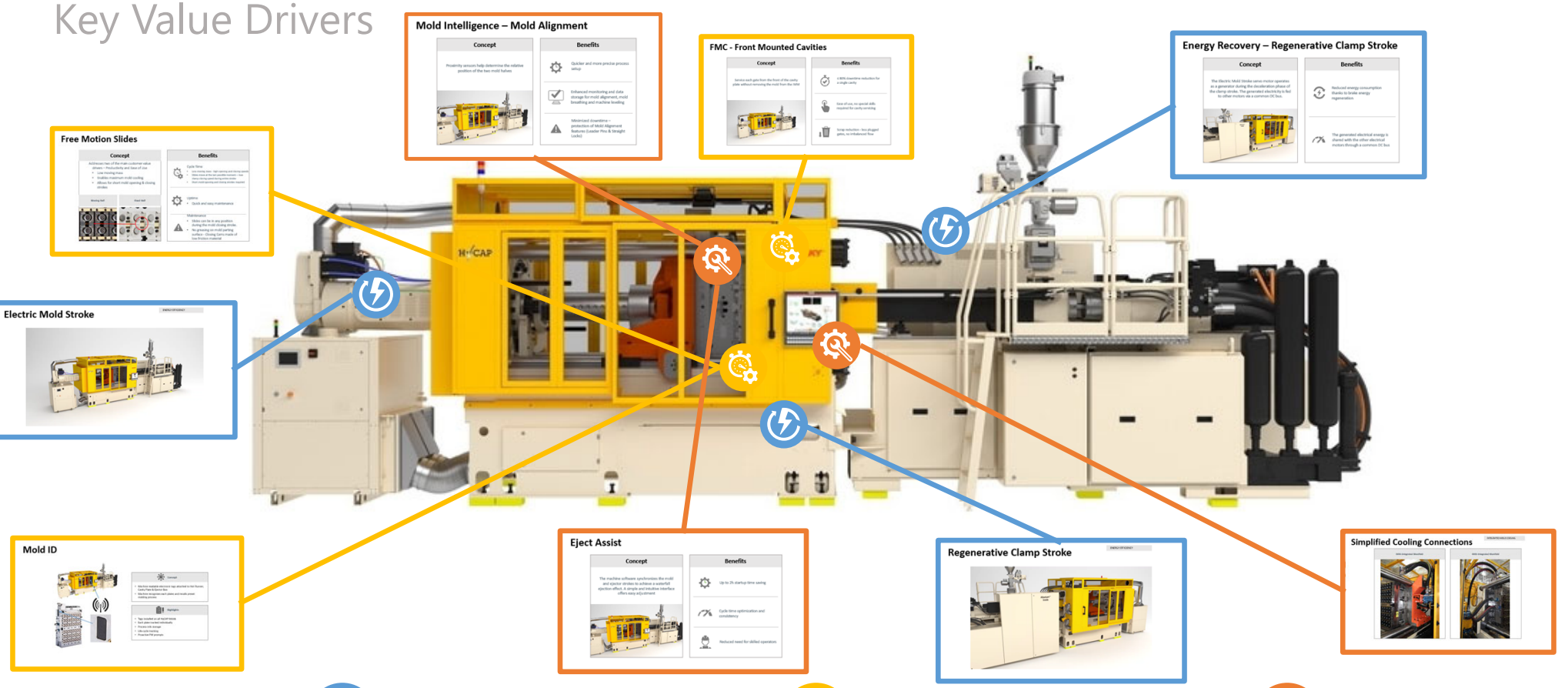


Benefits

- Up to 2h startup time saving
- Cycle time optimization and consistency
- Reduced need for skilled operators

HyCAP4 System

Key Value Drivers



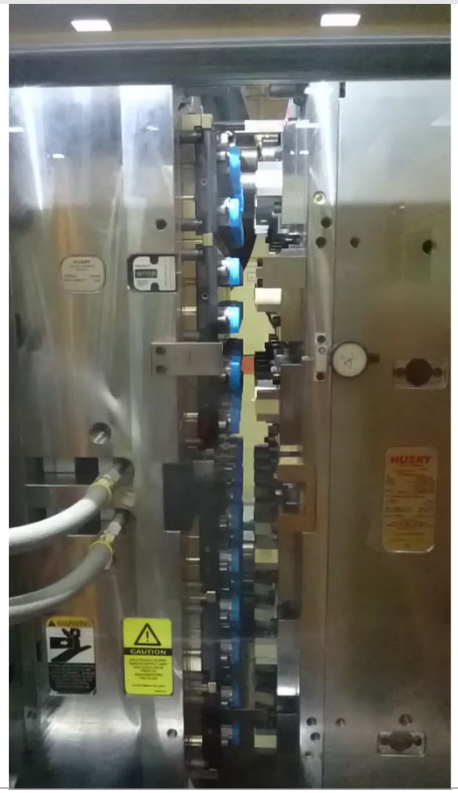
Energy Efficiency

Productivity

Ease of Use

Eject Assist

Concept

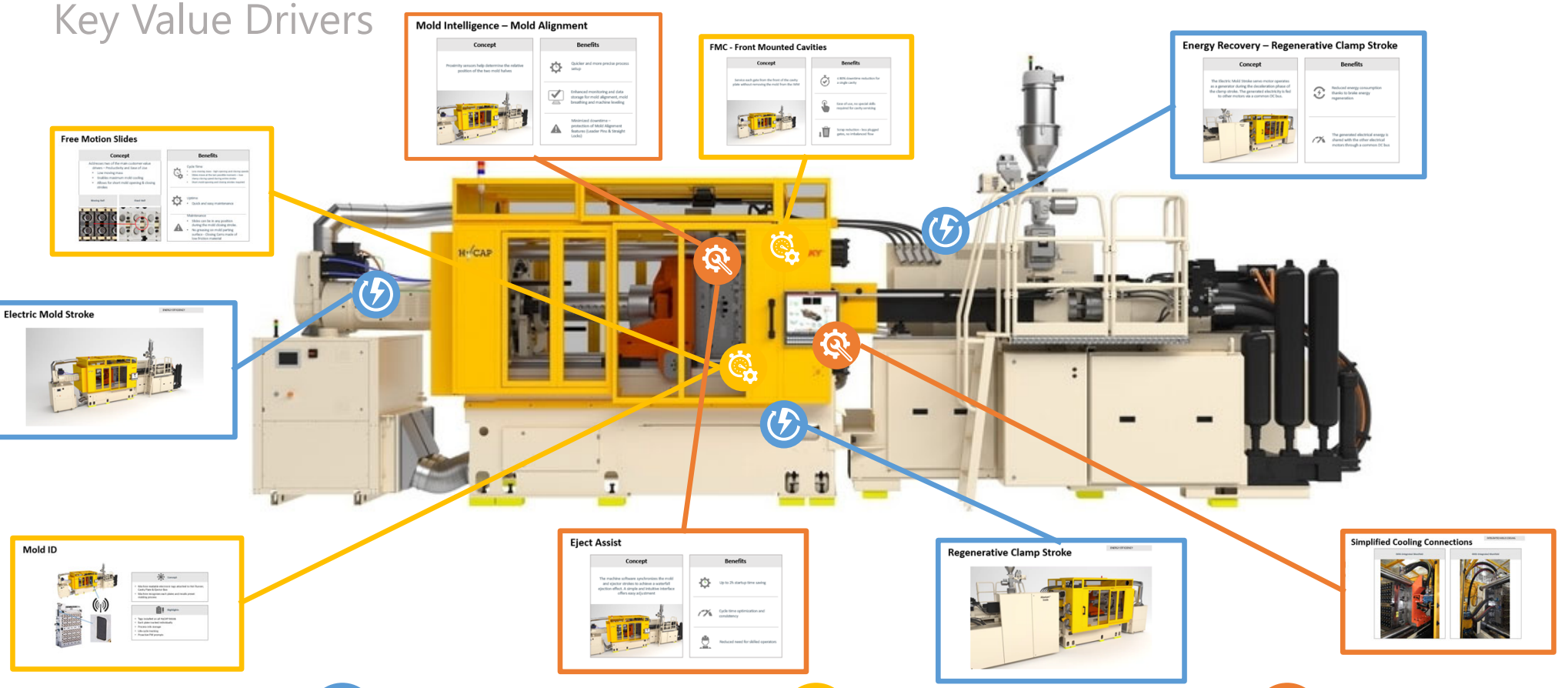


Benefits

- Up to 2h startup time saving
- Cycle time optimization and consistency
- Reduced need for skilled operators

HyCAP4 System

Key Value Drivers

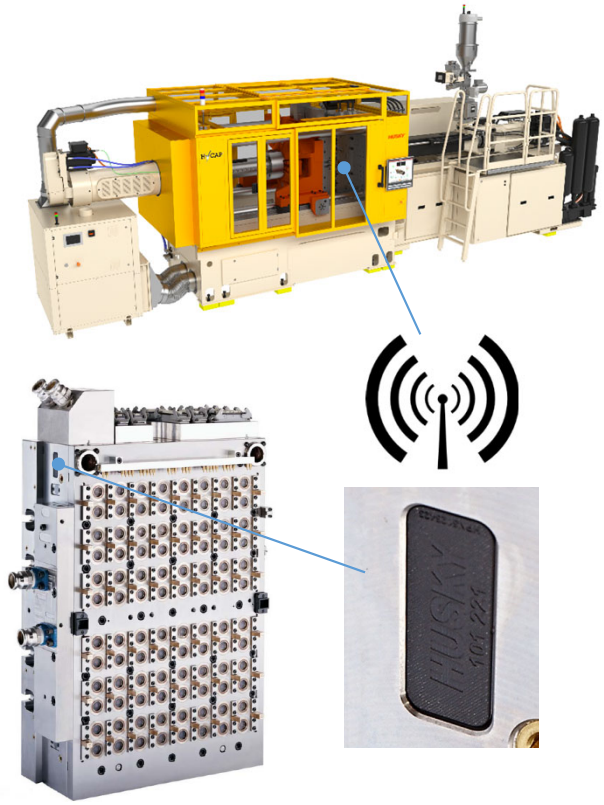


Energy Efficiency

Productivity

Ease of Use

Mold ID



Concept

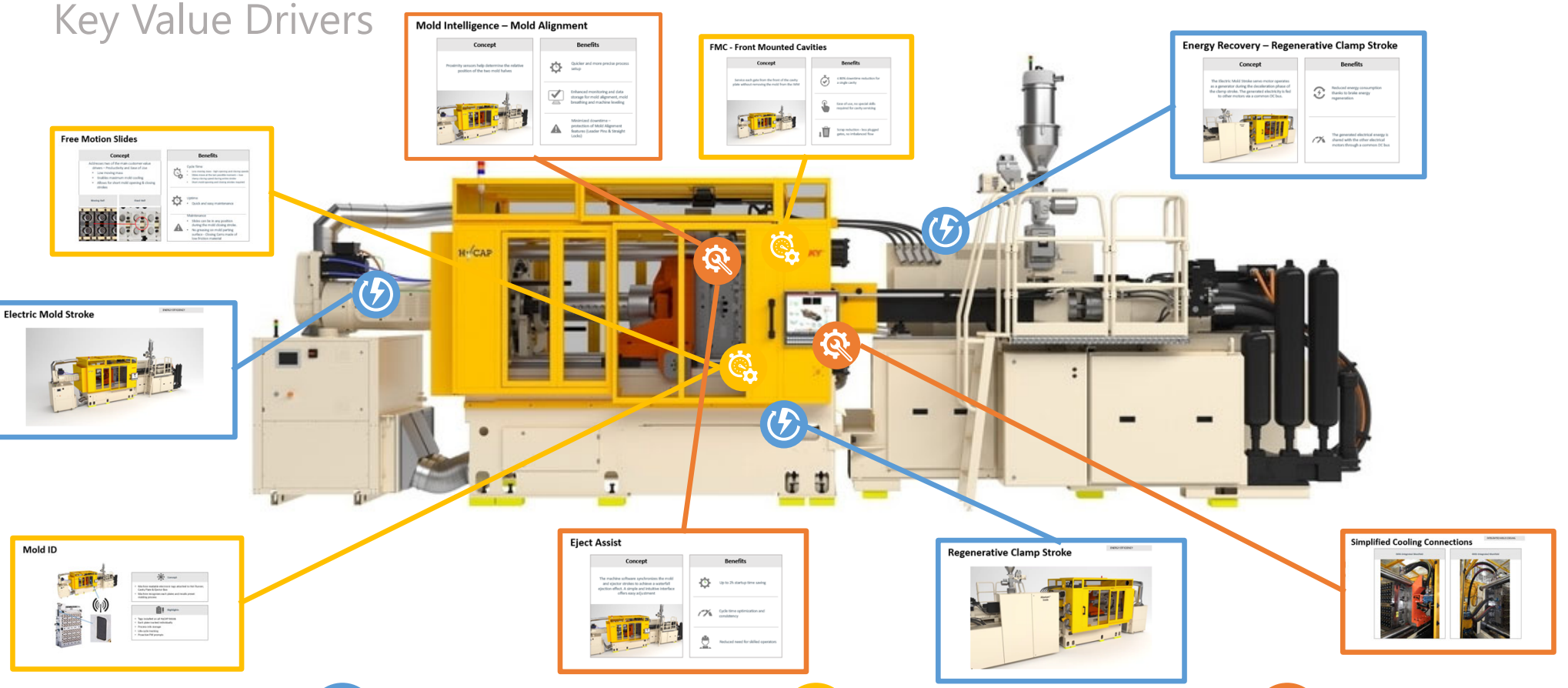
- Machine readable electronic tags attached to Hot Runner, Cavity Plate & Ejector Box
- Machine recognizes each plates and recalls preset molding process

Highlights

- Tags installed on all HyCAP Molds
- Each plate tracked individually
- Process info storage
- Life-cycle tracking
- Proactive PM prompts

HyCAP4 System

Key Value Drivers



Energy Efficiency

Productivity

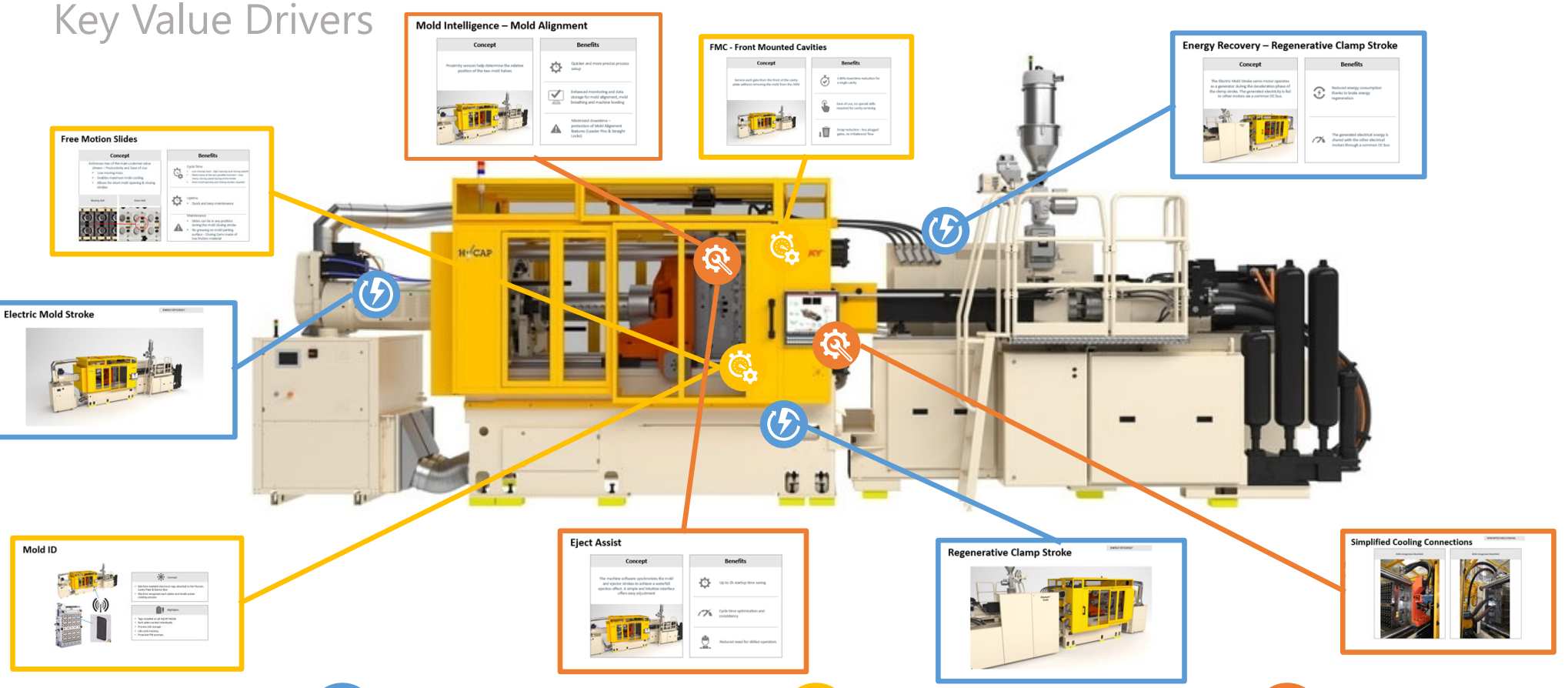
Ease of Use

Electric Mold Stroke

ENERGY EFFICIENCY

HyCAP4 System

Key Value Drivers



Energy Efficiency

Productivity

Ease of Use

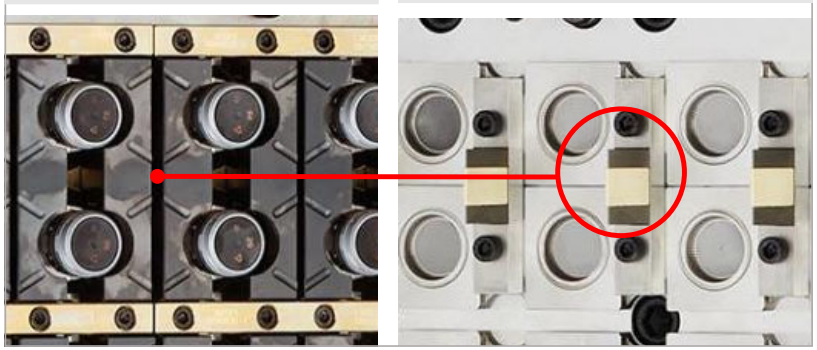
Free Motion Slides

Concept

Addresses two of the main customer value drivers – Productivity and Ease of Use

- Low moving mass
- Enables maximum mold cooling
- Allows for short mold opening & closing strokes

Moving Half	Fixed Half



Benefits

Cycle Time

- Low moving mass - high opening and closing speeds
- Slides move at the last possible moment – max clamp closing speed during entire stroke
- Short mold opening and closing strokes required

Uptime

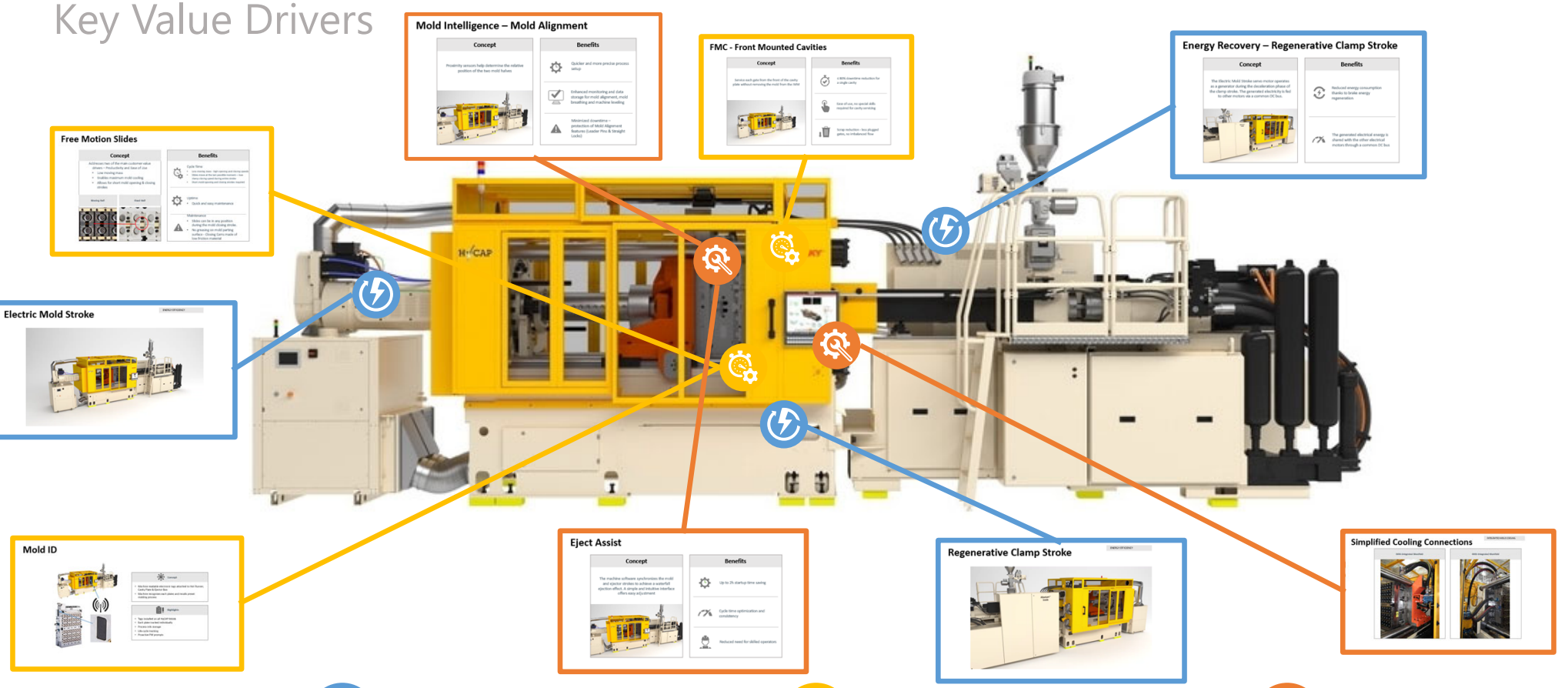
- Quick and easy maintenance

Maintenance

- Slides can be in any position during the mold closing stroke.
- No greasing on mold parting surface - Closing Cams made of low friction material

HyCAP4 System

Key Value Drivers



Energy Efficiency

Productivity

Ease of Use