

IFR Executive Roundtable on 23 May 2023

The Future of Manufacturing in North America

International Federation of Robotics



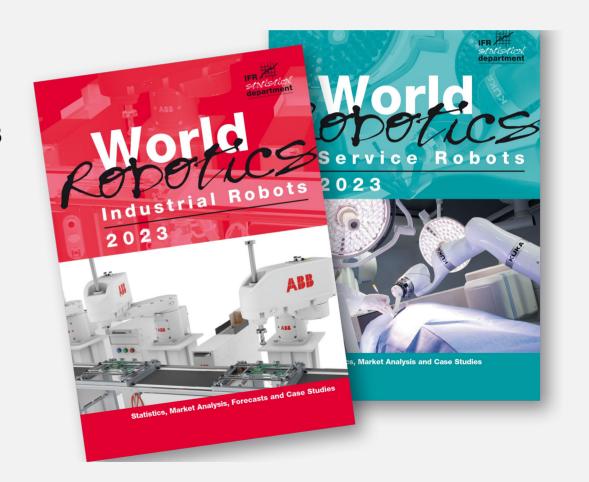
- Non-profit organization since 1987
- IFR represent more than 2,000 organizations from 25 countries
- Robot manufacturers, national robotics associations, universities, start-ups worldwide
- Annual global robotics turnover \$50 billion (robot systems including software & peripherals)



IFR statistics and World Robotics

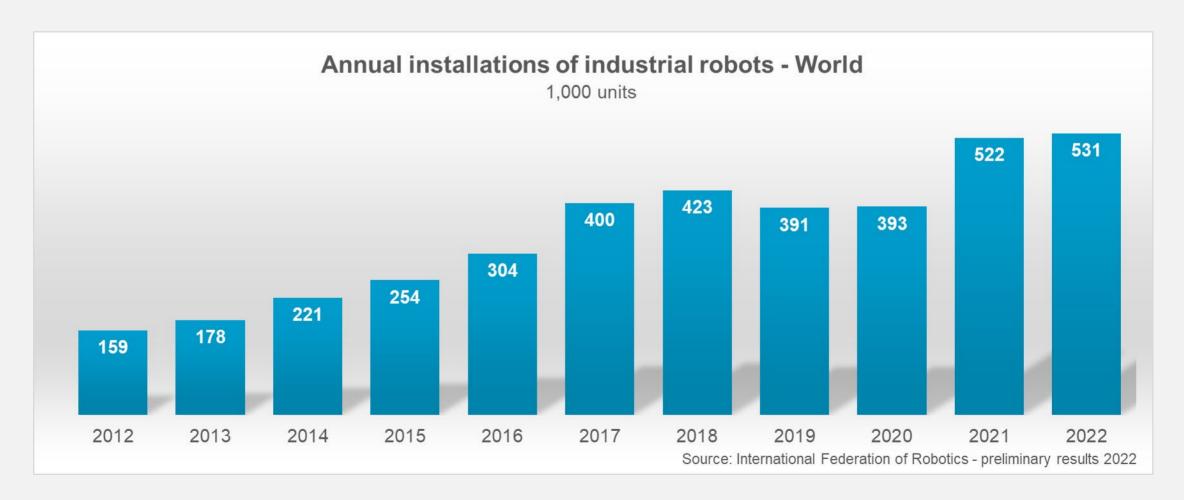


- Numbers presented here are preliminary
- Final results will be published in World Robotics 2023
 - Available September 2023



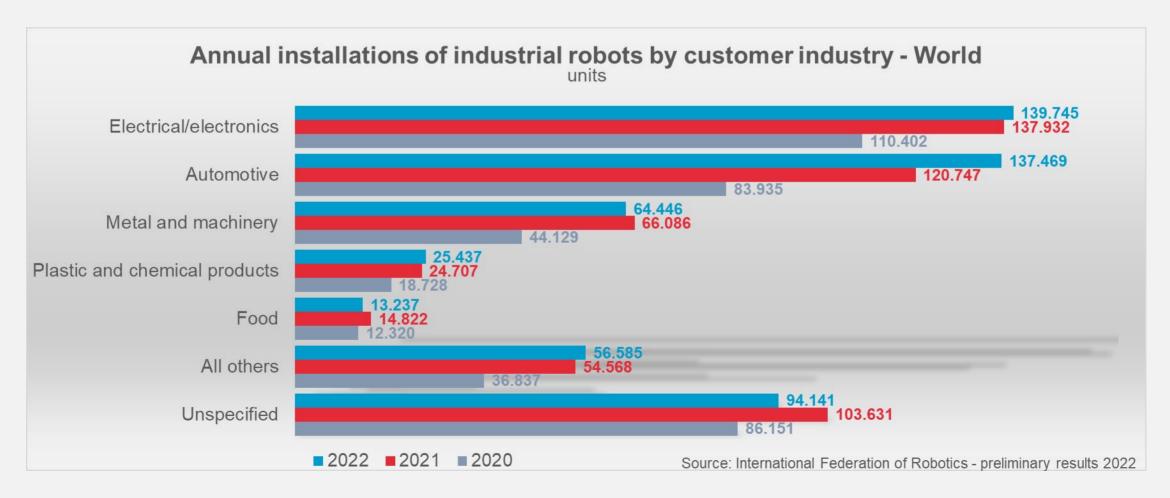
Global installations 2022: 531,060 units (+2%)





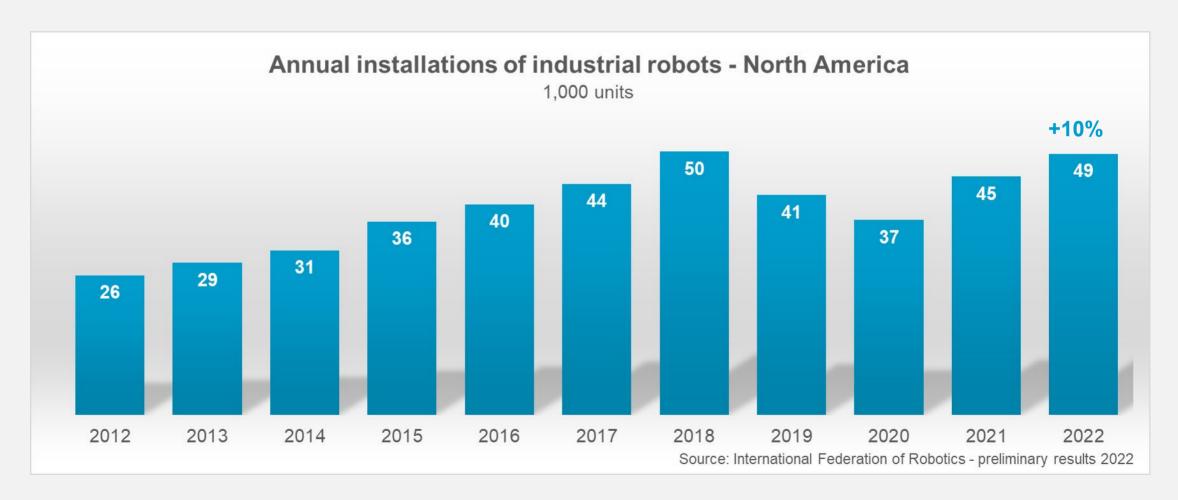
Automotive catching up – head to head with Electronics





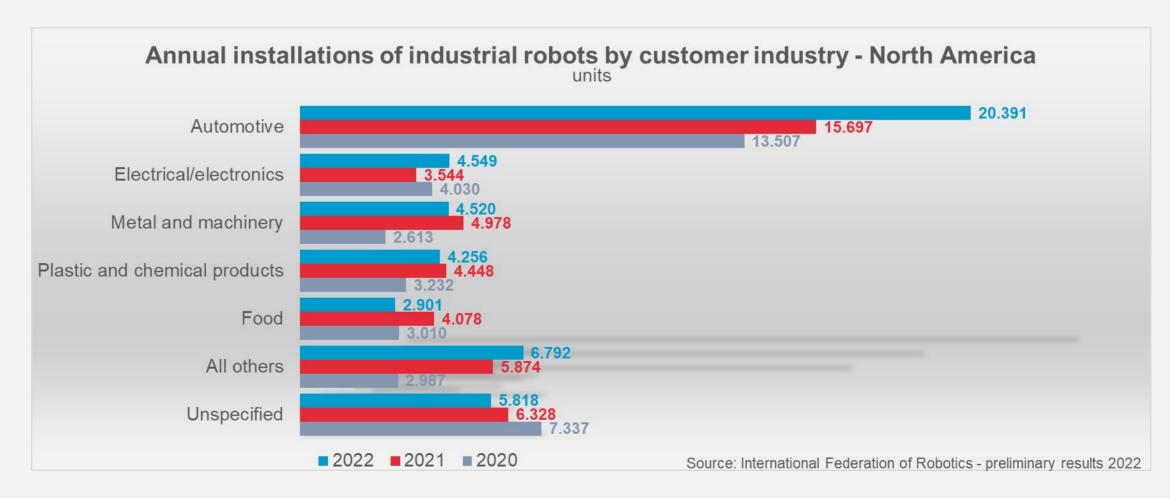
North America approaching all-time high





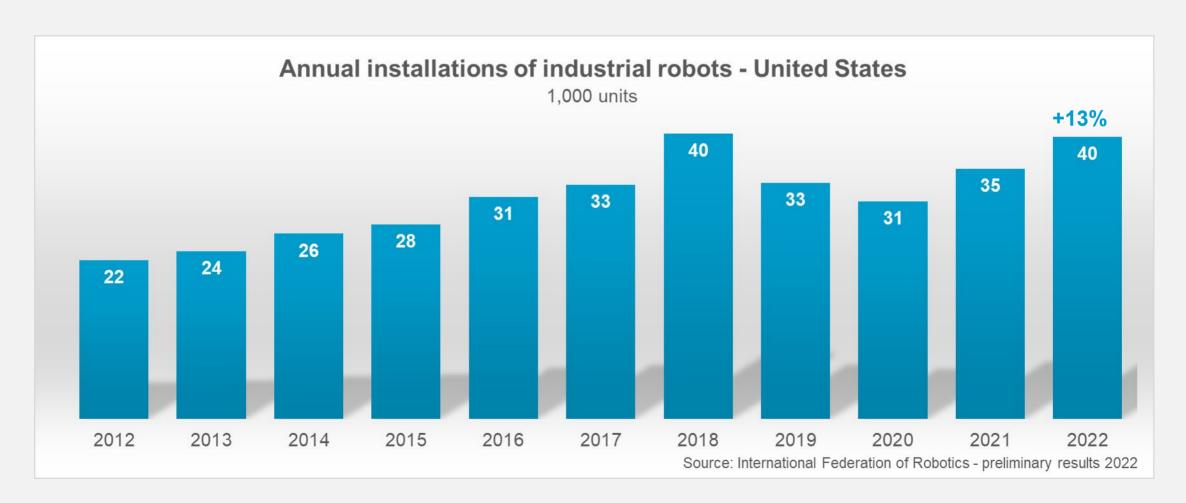
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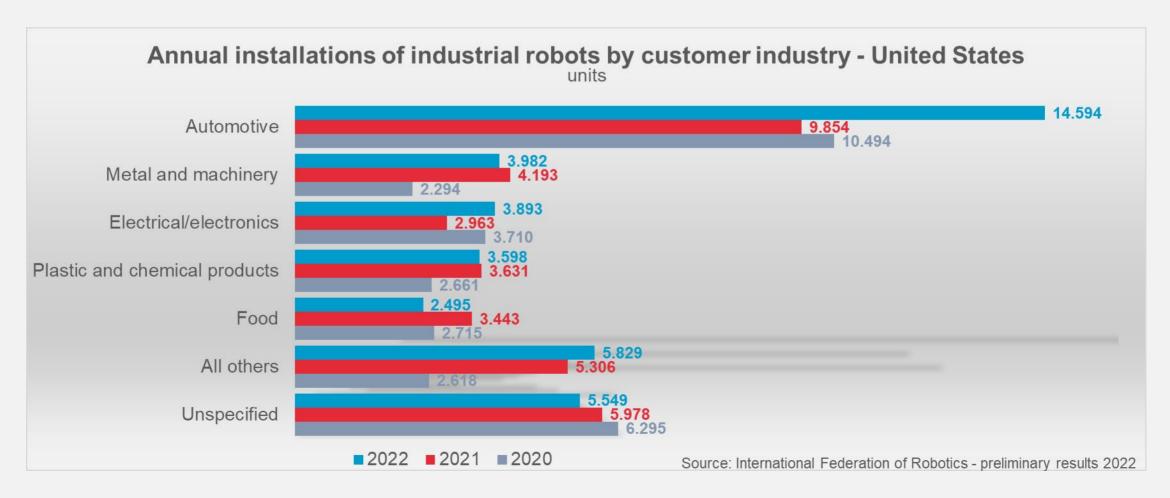
US installations +13%





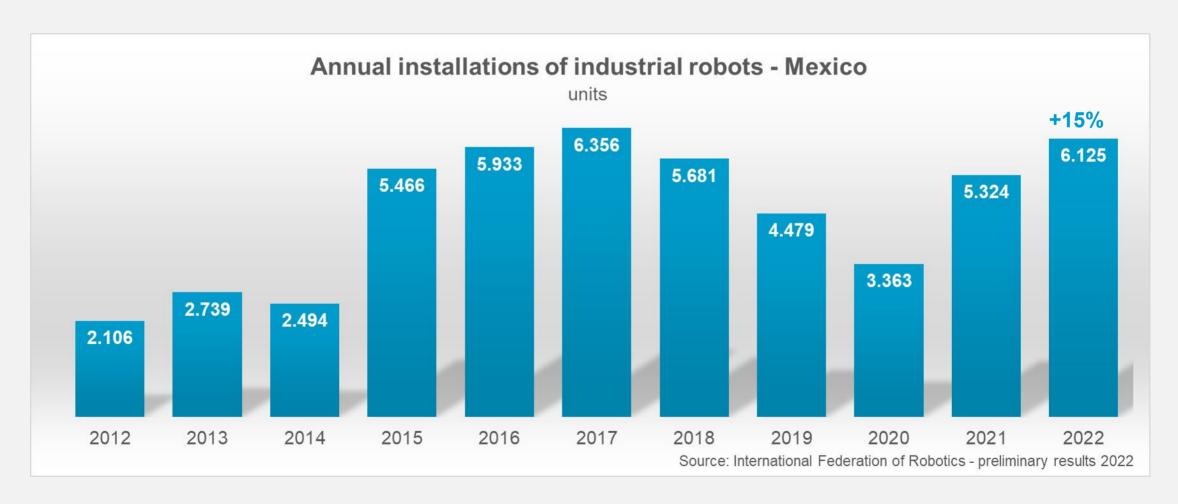
Automotive drives growth in the US





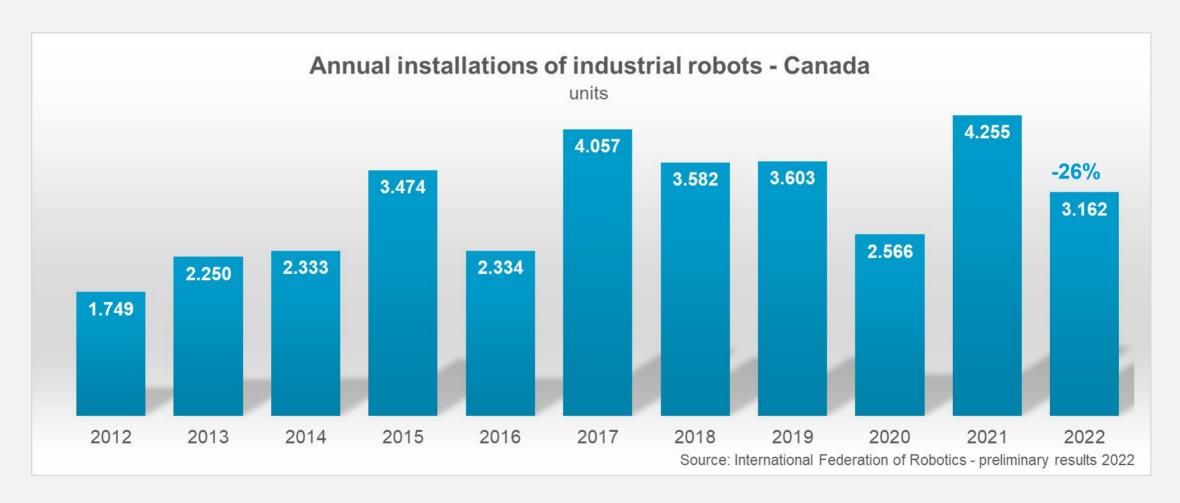
Mexico: strongest growth in North America





Canada: very cyclical due to automotive









"Boom after crisis" decelerating

- Turnover in North America was still growing strongly in Q1/2023 *
- Order intake in Q1/2023 is declining (-5% to -10% yoy) *
- "Base effect": Orders were at an all-time high in Q1/2022 *



Sources:

^{*} IFR Quarterly Survey

⁺A3 Quarterly Statistics







Global trends:

- Uncertainty factors weigh on willingness to invest
- Central bank policy in the US and in the Euro Area burden investments
- Chinese economy more soft *
- Political tensions
- Outlook for North America
 - Good climate for investments
 - Labor shortage
 - Inflation Reduction Act

Source: * VDMA Machinery & Equipment in China Q1/2023: