



# Tulip Overview for Manufacturing

2024



The \$2T<sup>1</sup> invested annually in technology is **not solving a fundamentally human problem.**

**70%-80%**

of failures are  
caused by humans <sup>1</sup>

**\$2.5t**

of economic output at risk due to  
persistent skills shortage <sup>2</sup>

**2.5m**

jobs will go unfilled  
over the next decade  
<sup>3</sup>

**40%**

yearly turnover rate in  
manufacturing <sup>4</sup>

1) Source: IHS Markit

2) Department of Energy, "Human Performance Improvement Handbook", Noria research

3) Economic output at risk and unfilled positions over 2018-2028, Source: BLS and Oxford Economic Model, Deloitte and Manufacturing Institute (MI) research initiative

4) US Department of Labor, 2022



Operations is **underserved by technology**.  
Legacy solutions lack:

### **Agility and Extensibility**

Adapt operations to react quickly.  
Enabling engineers to  
continuously improve operations.

### **Human-Centric Augmentation**

Training workers quickly,  
improving their productivity, error-  
proofing and augmenting  
workflows.



# Boost productivity with human-centric systems

- Streamlined, connected end-user experiences
- 70% reduction of defects <sup>1</sup>
- 15% boost in operator efficiency <sup>1</sup>
- 50% time savings for supporting staff <sup>1</sup>



Interactive Work Instructions

Streamlined Data Collection and Validation

Edge Connectivity  
Calipers, scales, etc.

Vision Camera  
Visual Inspection, Time Studies, Material Flow, etc.

1) Forrester Consulting. The Total Economic Impact™ of Tulip Frontline Operations Platform. A Study commissioned by Tulip. April 2023.

# Empower engineers on the frontline of operations to create powerful solutions

## Connected Apps to Power Operations

Create, deploy, collect, and analyze —  
without writing a line of code



Frontline Feedback



Real-Time  
Process Data



Continuous  
Improvement

# Manufacturers who embrace this new approach **see value fast**

– and at a lower cost and with less risk.



**6-month** reduction in  
**training time**<sup>1</sup>

Electronics Manufacturer

**62%** reduction in  
**errors, 20%** increase in  
production

**DMG MORI**

Increased production  
capacity **40 to 45%**<sup>1</sup>

Medical Device Manufacturer

**70%** reduction  
in **defects** in  
finished goods<sup>1</sup>

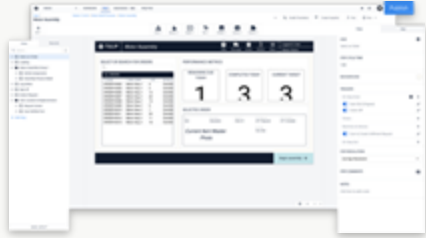
Medical Device Manufacturer

**18%** increase in  
**productivity**<sup>2</sup>

Luxury Jewelry  
Manufacturer

1) Forrester Consulting. Total Economic Impact of Tulip. 2023

# Tulip's platform consists of four main components



## Web-Based Editor

Add logic to your operations without writing any code — using our apps editor, you can make simple work of complex applications.

Translate apps, or add AI to your apps in minutes with powerful triggers.



## Powerful Connectivity

Connecting all of your devices, sensors, and machines to Tulip with OPC UA and MQTT or with our Edge Devices.

Integrate APIs and systems you already use with Tulip's Connector Framework.



## Real-Time Analytics

Create and share analytics and dashboards from your process data to measure, monitor, and make decisions in real-time.

Take action on your insights with native machine learning and alerting.



## World-Class Ecosystem

Download apps and connectors from the Tulip Library. Learn from free online courses on Tulip University. Connect with Technology Partners.

Chat with experienced users and staff on Tulip Community.

# Manufacturers need to change their thinking to transform their operations

## Shift in development → **democratization**

Faster, more effective human-centric solution development – **by those who know the process best**

"If we empower our employees to leverage a technology, they will surprise us on what they can do."  
- VP, Outset Medical

## Change in culture → **composability**

Reduced risk associated with changes to production – **enabling resilience and operational agility and faster time-to-value**

"My team can recognize inefficiency and implement [a solution] in Tulip in a matter of hours"  
- Director, Lockheed Martin

## Creation of an ecosystem → **extensibility**

Extended solutions with multiple data sources to solve problems– **freeing organizations to build the stack they need**

"Simple things are simple, complex things are possible."  
- Engineer, Components Mfg





# About Tulip



2014

Founded out of  
MIT Media Lab.

Boston

HQ, with offices in  
Munich and Budapest.

300+

Employees.  
(and growing!)

## Industries



Pharma



CPG



A&D



Automotive



Heavy Industry



High-Tech



Medical Devices

## Customers

800+

Customer sites  
(and growing!)

20K

Apps active  
monthly



StanleyBlack&Decker

DMG MORI



## Thought Leadership

Gartner

Tulip named a **Challenger** in the **2023 Gartner® Magic Quadrant™** for third time.

FORRESTER

Tulip named a **Strong Performer** in **Forrester's 2024 Wave for Low Code Platforms for Citizen Developers**.

Tulip CEO co-authored **Augmented Lean** book and transformation framework.



## Alliances and Partners



McKinsey  
& Company



60+

Implementation and  
GTM Partners

20+

Countries Across  
the Globe



# Get value fast by focusing on the most pressing challenges in your operations



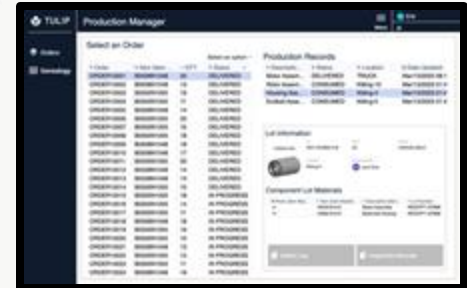
Production Management



Quality



Digital Guidance



Traceability and Compliance

# Get value fast by focusing on the most pressing challenges in your operations

## Digital Guidance

Digital Work Instructions

Kitting

Operator Training

Pack & Ship

## Quality

Non-Conformance Tracking

Rework Tracking

Dispositioning

Scrap Tracking

Quality Inspection

AI-powered Quality Inspection

## Production Management

Production Tracking

Performance Visibility

Alert Management

Labor Tracking

Digital Traveler

Safety Checklists

Order Dispatch

Daily Management Board

Hourly Production Scorecards

Resource Management

## Traceability & Compliance

Genealogy/ Traceability

Process Audits

Tool Tracking

Batch, Lot, and Material Release

Batch Records

Device History Records

Logbooks

Line Clearance

Weigh & Dispense

## Inventory

Replenishment

Inventory Management

Material Management

## Maintenance

Asset Maintenance

Markets



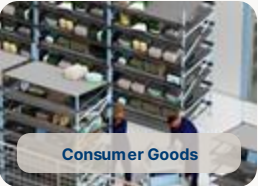
Industrial Equipment



Pharma & Biotech



Automotive



Consumer Goods



Electronics



Medical Devices

Use Cases



Quality Inspection



Production Visibility



Equipment Management



Equipment Logbooks



Digital Guidance



GxP Documentation



Inventory Management



Defect Tracking



Traceability & Genealogy



Production Tracking

...



Continuous Improvement

Ecosystem



Community



University



Library



Knowledge Base



Technology Partners

Platform

Core Features



App Editor

Tables

Analytics



Edge HW

Connectors

AI

Automation s

Vision

Machine Monitoring

Enterprise Features

Approval / GxP

Workspaces

SAML/LDAP

Custom Widgets

Node - RED

API

Developer Features

IT / OT



WMS



LIMS



MES



ERP



Historian



PLM

IaaS



Public Cloud



VPCx



Gov Cloud

Automation



Robotics



Smart Tools



PLC



SCADA







Questions?



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