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Creation of electrical planning data for U.I. Lapp GmbH in a joint project with CADENAS

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Agenda

- 1 About LAPP
- 2 Electrical planning data - What is that?
- 3 Why does LAPP need electrical planning data?
- 4 Presentation and advantages of the project with CADENAS
- 5 Results and conclusion of the project
- 6 Outlook

About LAPP

Products

Our strong range for your applications



ÖLFLEX®

Connection and control cables



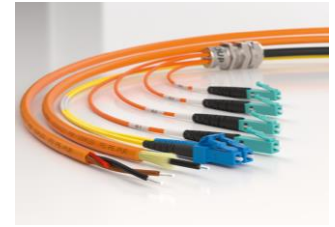
UNITRONIC®

Data transmission systems



ETHERLINE®

Data transmission systems for
ETHERNET technology



HITRONIC®

Optical data transmission
systems



EPIC®

Industrial connectors



SKINTOP®

Cable glands



SILVYN®

Cable protection and guidance
systems



FLEXIMARK®

Marking systems

1,9

Bn. € turnover

1

Globally positioned family
business

More than
40.000
Standard products

5.050

Employees

44

Distribution
companies


21

Production plants

Strong in future industries

A circular image showing a server room with blue and red light trails representing data flow.

**Industrial
communication**

A circular image showing solar panels in a field with wind turbines in the background under a bright sky.

Solar energy

A circular image showing a warehouse interior with a white autonomous mobile robot (AMR) and other equipment.

Intralogistic

A circular image showing a woman sitting on a blue electric scooter outdoors.

E-mobility

A circular image showing a high-speed train moving through a tunnel.

Train

A circular image showing a close-up of industrial machinery with a bright light source.

**Mechanical and
plant
engineering**

A circular image showing wind turbines on a coastal island.

Wind energy

A circular image showing a battery pack with glowing energy lines.

**Battery
storage**

A circular image showing a red industrial robotic arm in a factory setting.

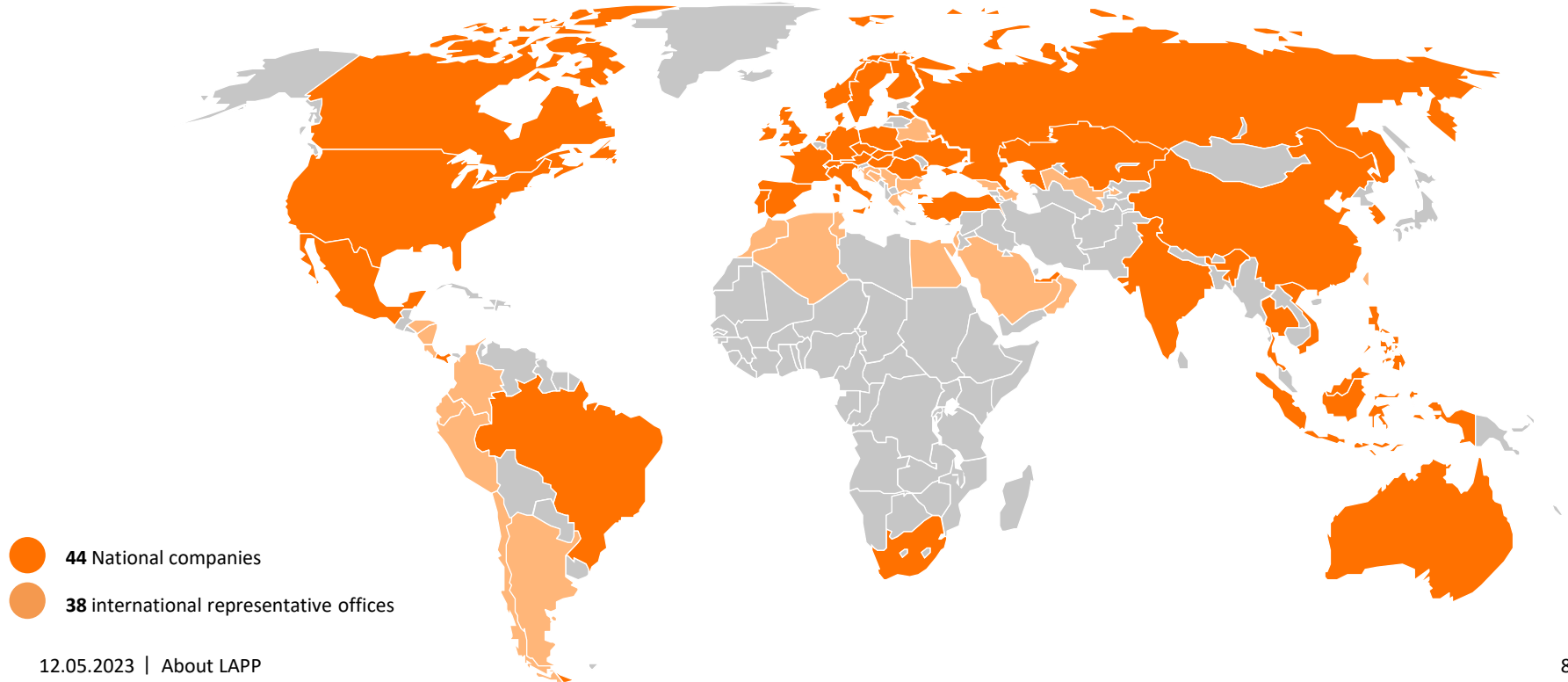
Robotics

A circular image showing a large industrial food and beverage processing plant.

**Food
And
beverage**

We are where our customers are ...

With 44 national companies and a further 38 contractual partners, LAPP is globally positioned.





LAPP always has a solution for your requirement

From experts for experts

LAPP has all application solutions in-house. All cable types, industrial connectors, accessories, protective and labelling material as well as a wide range of services in the area of logistics and service. And if our customers are missing something, we use our international network of suppliers.



We are industrial communication

Safety and reliability

Automation and Industry 4.0 depend on a secure data communication network. We take this task very seriously.

Let's innovate together.



We connect renewable energies

With special solutions for
solar and wind energy

Photovoltaic systems require high-performance plug connections. A PV system runs for many years and is constantly exposed to wind and weather. All components must be particularly weather-resistant. Like the EPIC® SOLAR 4PLUS plug-in system with double snap-in hooks or the wide selection of ÖLFLEX® solar cables.

Let's innovate together.



We are miniaturisation

The new EPIC® POWER M12L

Smaller is better: LAPP presents the EPIC® POWER M12L power connector. It is the smallest M12L connector available on the market and is particularly powerful with up to 16A.

Let's innovate together.





EPIC[®]

Robust yet flexible

Power, signal and data transmission

- Electrical and communications engineering
- Measuring, testing and control technology
- Mechanical engineering and equipment technology
- Drive technology and industrial automation
- Photovoltaic installations

EPIC[®] industrial connectors are used everywhere in mechanical and plant engineering or in drive technology where measurement, control, regulation and drive are required. EPIC[®] is a flexible system of housings, inserts and contacts: extremely robust, absolutely safe and very easy to assemble.

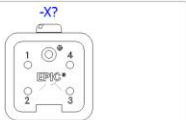
Electrical planning data - What is that?

What data?


Using the example of ePLAN and ZUKEN

- Various data help customers with electrical design
- Connection cross-sections
- Connection point pattern
- 2D and 3D graphic data
- Commercial data
- Drilling pattern


Back Detail view



EPIC® H-A 4 BS
Schaltschrankaufbau
Variante A
LAPP/EPIC H-A\10432000.ema



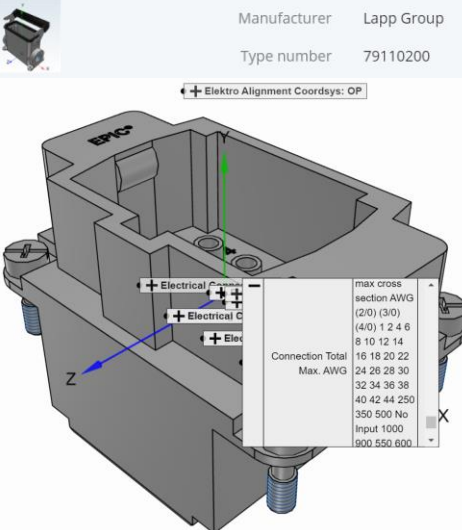
Part placement, Variante A Part placement, Variante B

Part number: LAPP.10432000
Manufacturer: Lapp Group
Type number: 10432000
Order number: 10432000
Designation: EN_US EPIC® H-A 4 BS
Description: EN_US Classification ETIM 5 ETIM 5.0 Class-ID: EC000438 ETIM 5.0 Class-Description: Contact insert for industrial connectors Classification ETIM 6 ETIM 6.0 Class-ID: EC000438 ETIM 5.0 Class-Description: Contact insert for industrial connectors Rated voltage (V) IEC: 400 V UL: 600 V CSA: 600 V Rated impulse voltage 4 kV Rated current (A) IEC: 23 A UL: 10 A CSA: 10 A Pollution degree 3 Flammability UL94 V-0 Contact resistance 1.5 - 4 mohm Contacts Copper alloy, hard silver-plated Number of contacts 4 + PE Termination methods Screw termination: 0.5 - 2.5 mm² (2.5 mm² with conductor end sleeves depending on the crimping profile) Stripping length (mm) 6 Cycle of mechanical operation 100 VDE-tested Certified production control: VDE-REG. no.: B437 UL-tested: UL File Number: E75770 Temperature range -40°C to +100°C, short-term up to +125°C
Languages: EN, DE
Product group: Electrical engineering > Plugs > Female insert
ECLASS: Electric engineering, automation, process control engineering > Connector system > Connector component > Contact insert for industrial connectors
classification
Data types: 

Available data types

- Commercial data
- Logic macro
- Connection point pattern
- 3D graphic data
- Function template
- 2D graphic data
- Drilling pattern
- DXF data

LAPP.79110200




Manufacturer: Lapp Group
Type number: 79110200

Elektro Alignment Coordsys: OP

Electrical Coordsys: OP

max cross section AWG
(2/0) (3/0)
(4/0) 1 2 4 6
8 10 12 14
16 18 20 22
24 26 28 30
32 34 36 38
40 42 44 250
350 500 No
Input 1000
900 550 600

Connection Total
Max. AWG

Data types: 

Available data types

- Commercial data
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IC assembly

Using the example of ePLAN

- Software for electrical and control cabinet construction
- Access to the Lapp Webshop
- Catalogue selection of all articles available at LAPP
- Reduction of data entry errors
- Create accurate BoM

The screenshot displays the ePLAN Electric P8 2.9 Update 1 software interface. The main window is titled "Lapp IC assembly" and shows a configuration panel for a Lapp IC assembly. The configuration parameters are as follows:

- IEC 81346 compliant structure:
- Page Starting Number (e.g. 1)*: 2
- Page Description*: LAPP IC assembly 2
- Cable-DT (e.g. -W1)*: -W2
- System*: PROFINET
- Application*: Type C - Drag Chain
- Connector Left*: RJ45, plug, 180° cable outlet
- Connector Right*: Open end
- Length [m]*: 5
- Place LAPP Webshop Links?:

The right side of the interface shows a 3D perspective view of the assembly, including a red drag chain and a blue cable tray. A link is visible: [View and order this part from the LAPP Webshop LAPP-2471289](#). The status bar at the bottom indicates "ONE-4.00 mm" and "Logic 1:1".

Why does LAPP need electrical planning data

-and of course our customers?

Why electrical planning data?

40%

of engineers spend at least one hour per day recreating standard or supplier parts

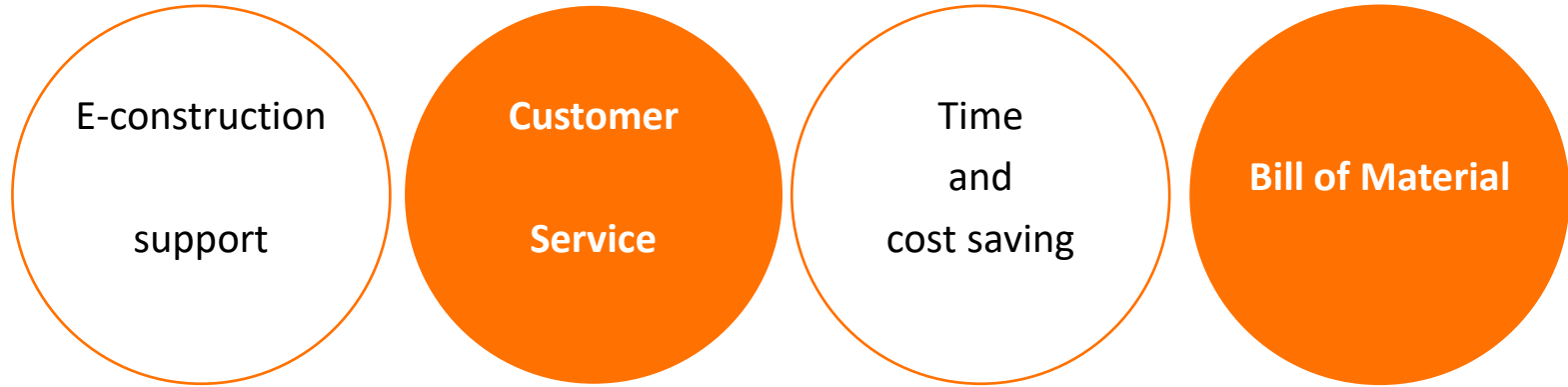
83%

of engineers spend time rebuilding parts that are already available online

48%

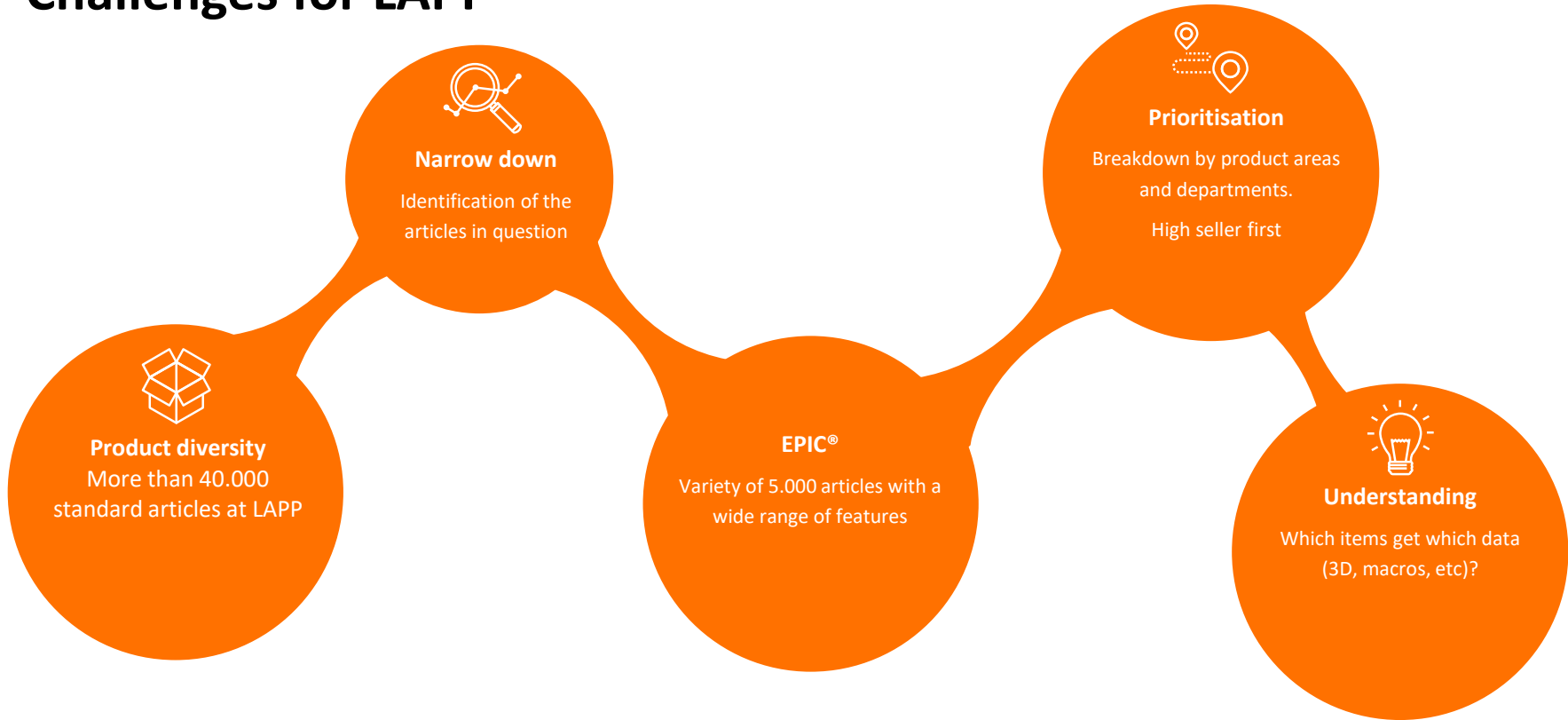
of engineers spend at least one hour per day searching for standard or supplier parts

Keyfacts



Presentation and advantages of the project with CADENAS

Challenges for LAPP



Current catalogue at CADENAS / ECAD

- 01 40.000 standard articles in the LAPP portfolio
- 02 5.000 standard articles in the EPIC® portfolio
- 03 10.500 LAPP articles at CADENAS
- 04 2.200 EPIC® articles at CADENAS
- 05 15.850 LAPP complete articles at ePLAN
- 06 1.850 EPIC® articles at ePLAN / 500 at ZUKEN

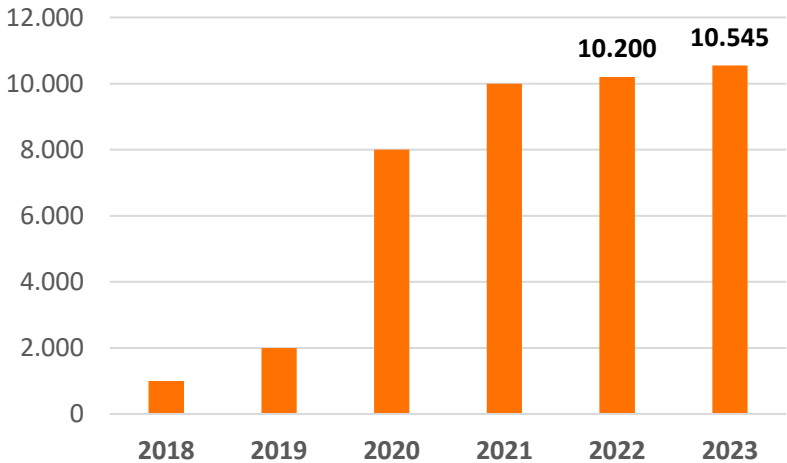
Extension of the LAPP catalogue with CAE data

- 01** Growing customer demand for CAD and ECAD
- with CADENAS as an established provider on the market
- 02** Technical and organisational implementation and support
- 03** CAD, ECAD and in future rendering - All-in-one solution for LAPP

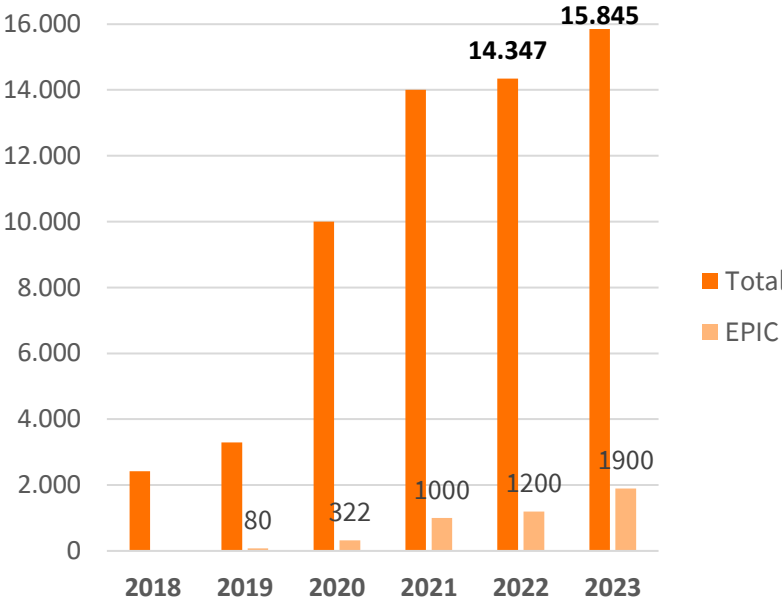
Results and conclusion of the project

Development of the available models

Available CAD models



Available ECAD models

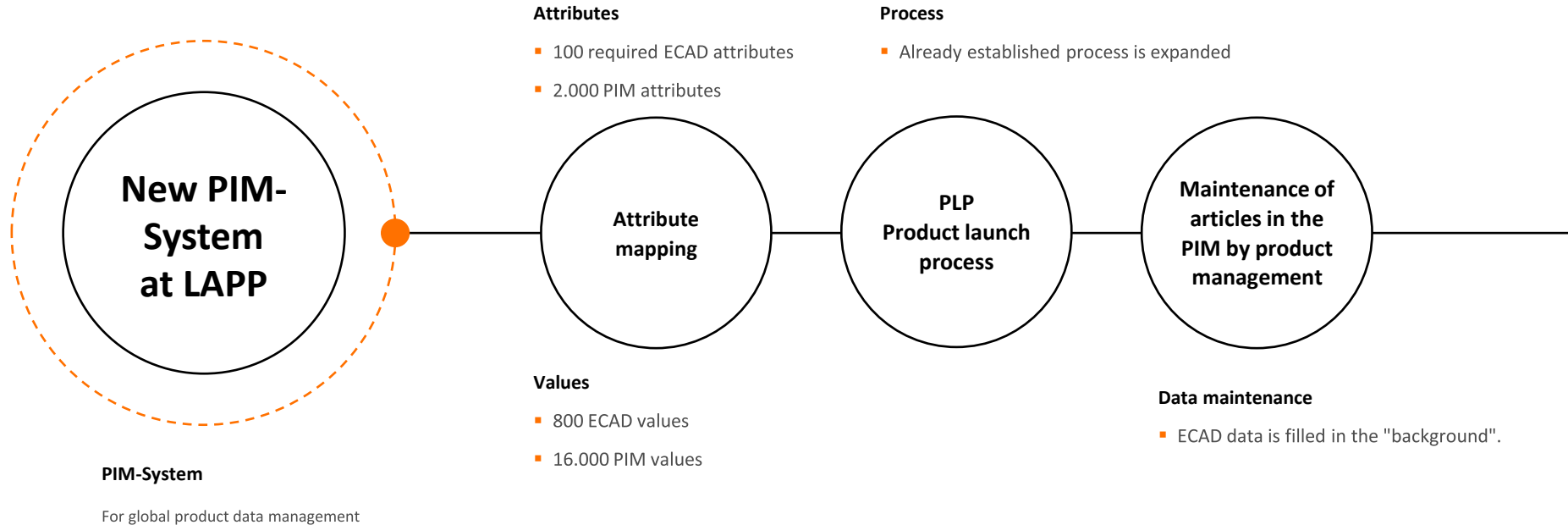


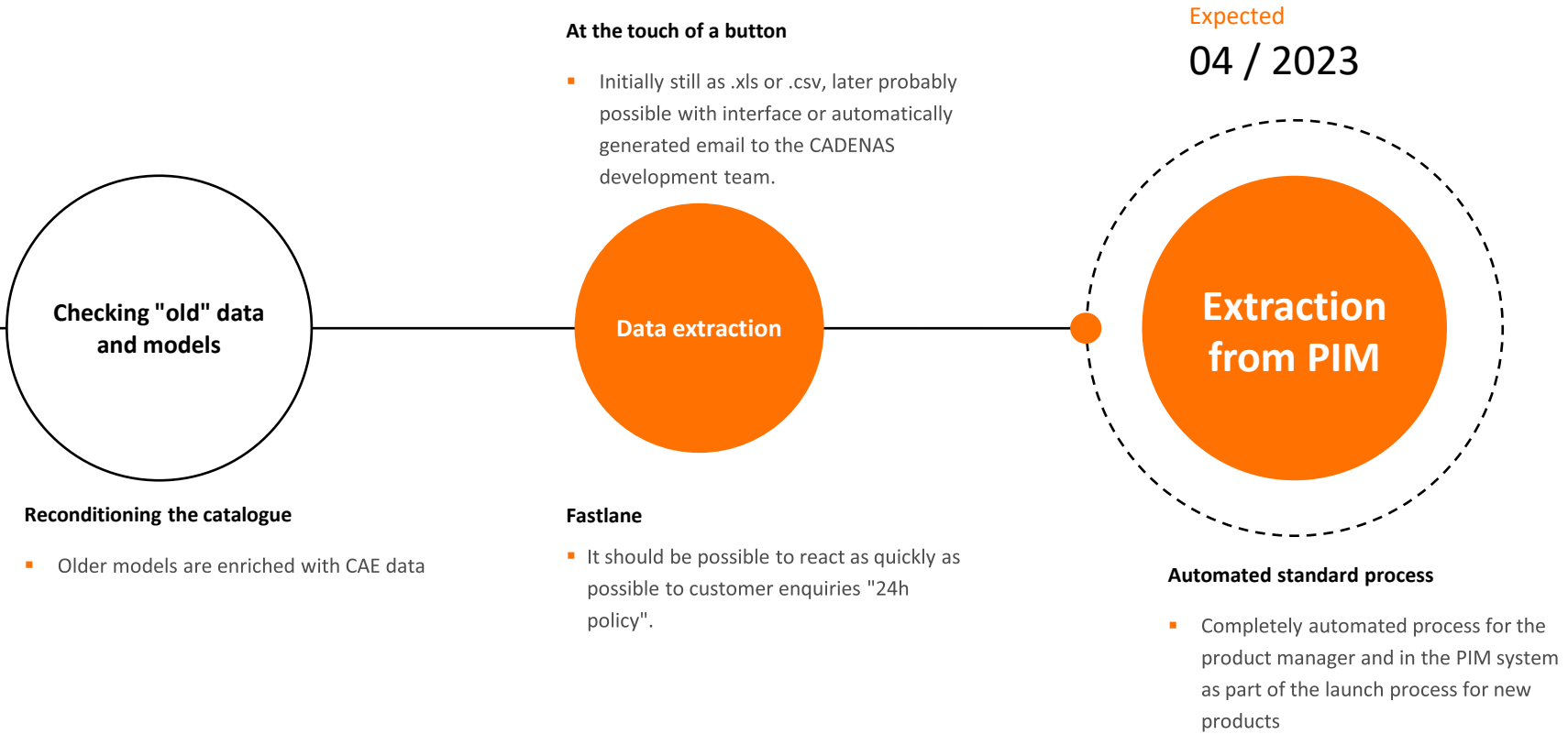
Summarised results and conclusion

- 01 **Increasing demand (download numbers and customer feedback)**
- 02 **Fastlane for customer enquiries**
- 03 **Continuous expansion and closing of gaps**
- 04 **Project is seen as MVP**
- 05 **Full success to be built on**
- 06 **Project to be transformed into standard process**

Forecast

Timeline





At the touch of a button

- Initially still as .xls or .csv, later probably possible with interface or automatically generated email to the CADENAS development team.

Fastlane

- It should be possible to react as quickly as possible to customer enquiries "24h policy".

Automated standard process

- Completely automated process for the product manager and in the PIM system as part of the launch process for new products

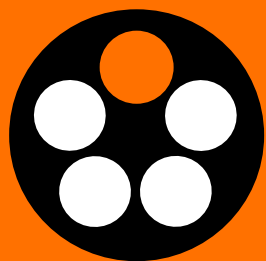
Reconditioning the catalogue

- Older models are enriched with CAE data

Thank you for your attention

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LAPP