

The word "motion" is rendered in large white letters. Each letter is composed of various mechanical parts: 'm' has a motor and gears; 'o' has a robotic arm; 't' has two grey rings; 'i' has a metal spring; 'o' has a black cable; 'n' has a black plastic bracket and a white motor.

motion

- ▶ Reduce costs, improve technology
- ▶ Calculate service life easily online
- ▶ Delivery from 24 hours
- ▶ ❤️

The word "plastics" is rendered in large white letters. Each letter is composed of various plastic and electrical components: 'p' has a yellow gear; 'l' has a black plastic bracket; 'a' has a black cable; 's' has a black plastic bracket; 't' has a black cable; 'i' has a black cable; 'c' has a black cable; 's' has a black cable; 't' has a black cable; 'i' has a black cable; 'c' has a black cable; 's' has a black cable.

plastics[®]

The logo for igus, featuring the word "igus" in a stylized white font with a horizontal line through the middle of the letters.

igus[®]

Eliminate lubrication

The annual worldwide consumption of lubricants amounts to 37.3 million metric tons, 18 million of which are discharged into the environment without any safeguards

(RWTH Aachen)

In the manufacture of plastic, 50% less mineral oil is used than for similar products made of steel and 70% less than for aluminium products

(Wüllner + Kaiser GmbH & Co KG)

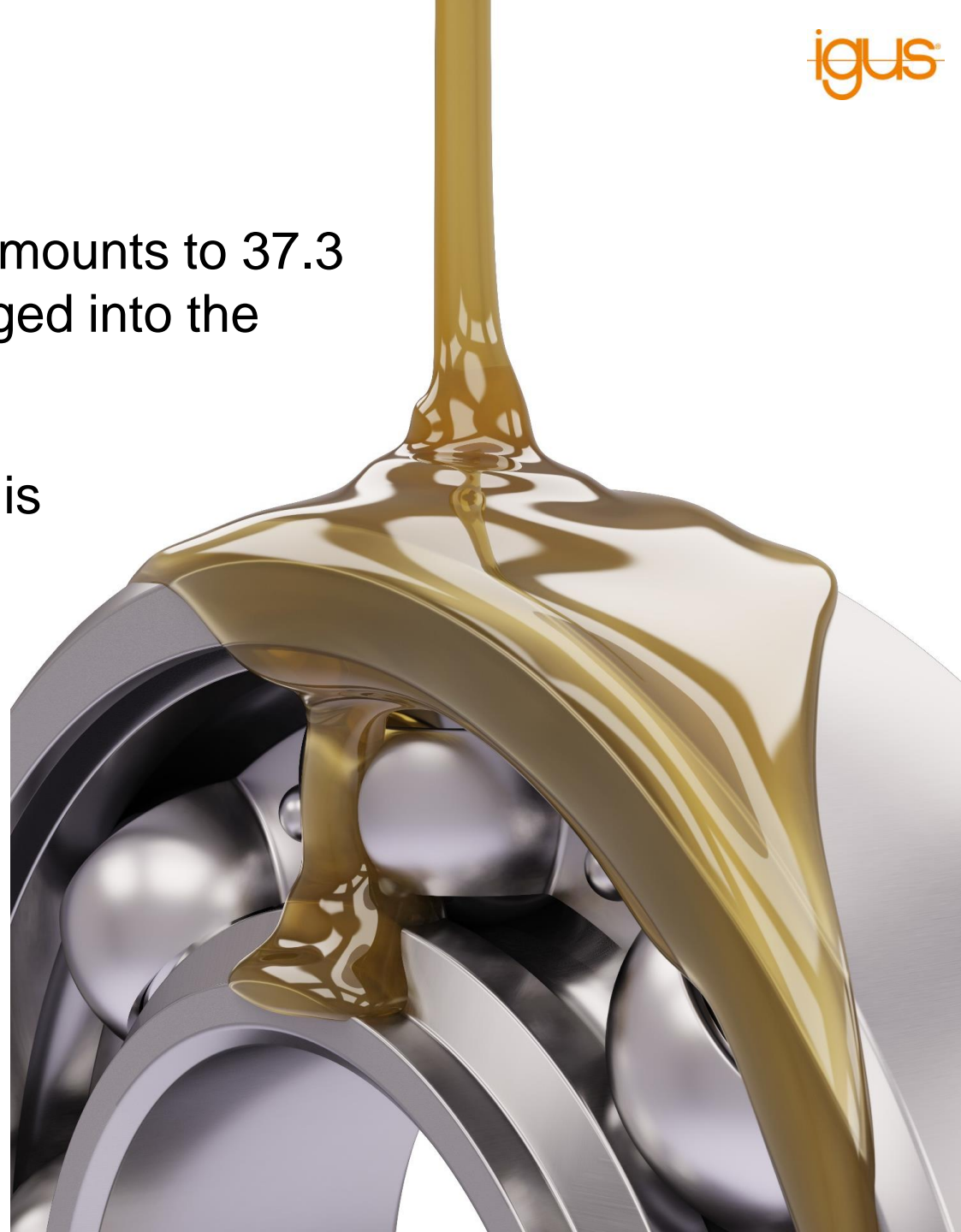
Worldwide, more than 50% of lubricants are discharged into the environment

(Landesanstalt für Umweltschutz Baden-Württemberg)

Costs of failures due to inadequate lubrication:
240 billion dollars in the USA alone

(MIT, Massachusetts Institute of Technology)

In addition, no corrosion, a 70% weight reduction, resistant to dirt, chemicals and UV radiation, ...



Eliminate downtime

"Our machines have to function all round the clock and unscheduled failures have to be avoided at all costs", explains Thomas Troppmann. "When we worked with igus® to design the cables for the application, we extrapolated the cycles for ten years in order to determine the requirements."



...moving energy made easy

What we do.

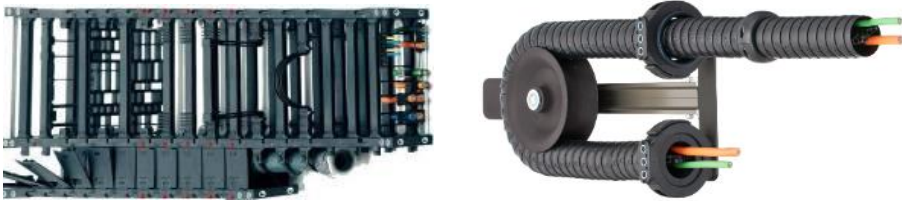
Who we are. (Or we think we are.)

What is on the horizon.

The idea: motion? plastics!

motion plastics® for longer life, cost down ... life up

the-chain ... moving energy made easy



e-chain systems®



chainflex® cables / readycable® harnessed cables



Ready-to-install readychains®

dry-tech® ... lubrication-free bearing technology



iglidur® plain bearings



igubal® spherical bearings



drylin® linear systems

The idea: motion? plastics!

motion plastics® for longer life, cost down ... life up



igidur® wear-resistant parts



igidur® PRT slewing rings and piston rings



xiros® plastic ball bearings



igidur® customised rollers



smart plastics
predictive maintenance



Low Cost Automation:
roboLink®, multi-axis systems for robots and pikchain®



drylin® E electric linear axes



dryspin® lead screw



igidur® gears

Three promises have to be kept

Improve technology ... reduce costs...

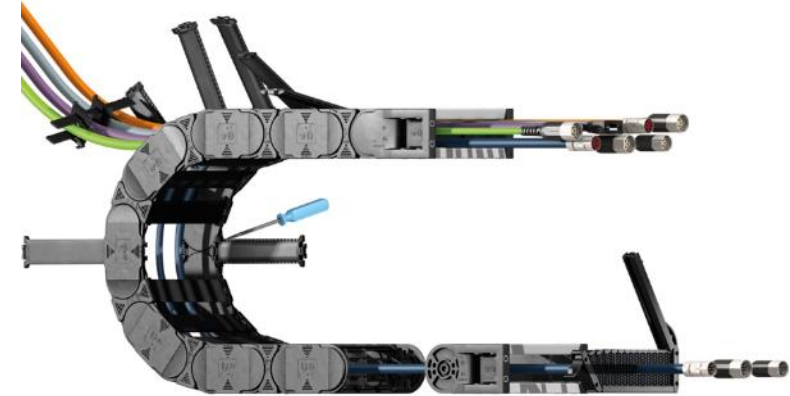
... at least one of the two!

... online calculation ...

Quick and easy online service life calculation and configuration on www.igus.eu

... and fast delivery ...

"from 24 hours"



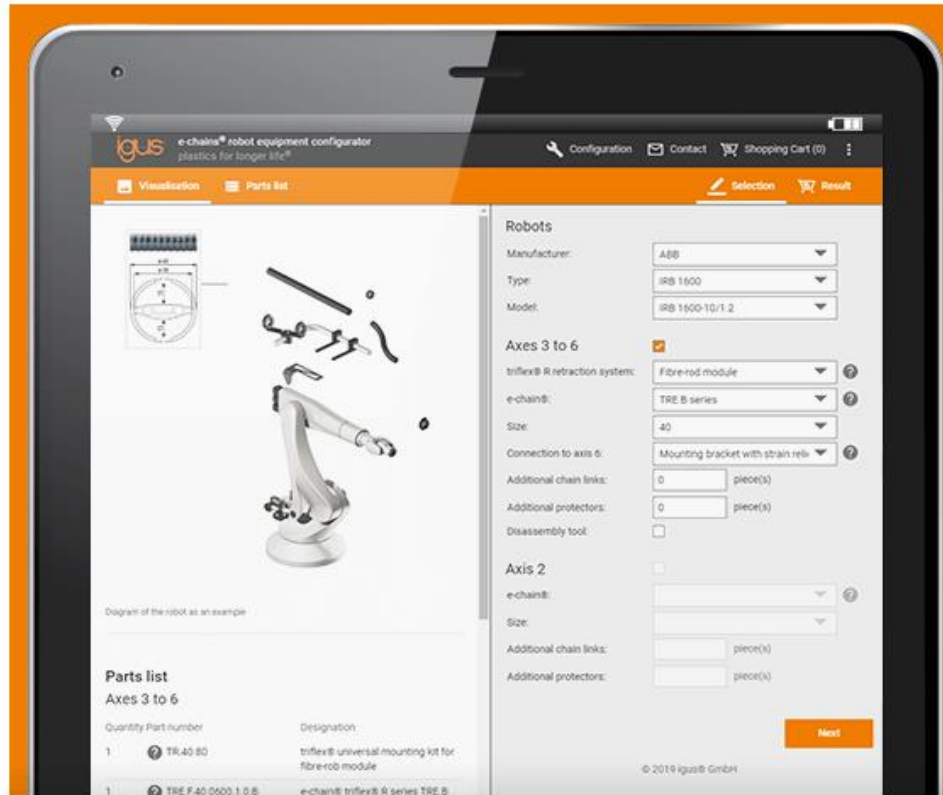
Calculate and configure online

Online Solutions

Online Shop



CAD Downloads



33 online tools
Calculate service life, configure and simulate products.



Customer-specific solutions



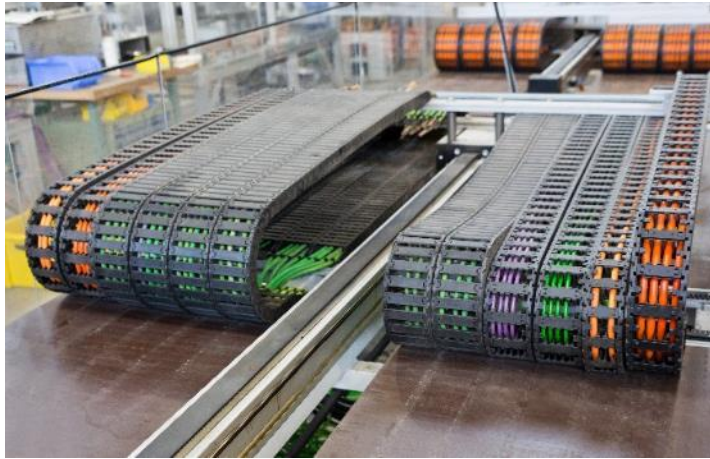
Personal consultation



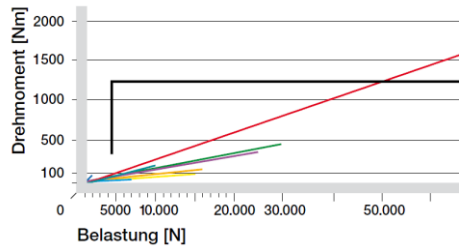
Industry's largest test lab: 3,800m²

More than 16,000 tests per year

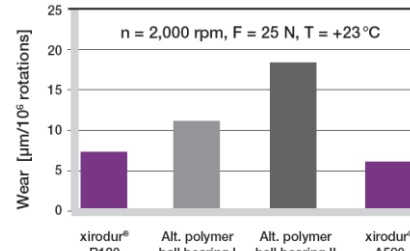
12,000 tribo tests and 4,100 e-chain® tests, with 2 billion e-chain® and chainflex® cycles and 1 million electrical measurements. 135 trillion tribological test movements per year



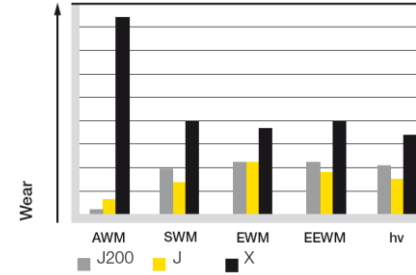
The system of igus® tribo-polymers



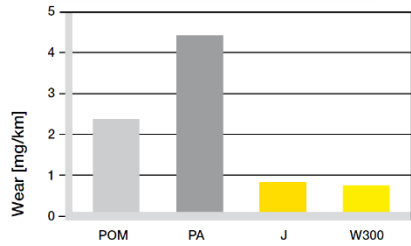
High loads and strength



Faster speeds and higher loads

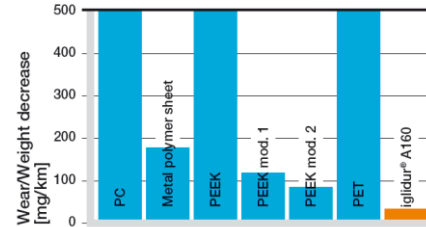


Lubrication-free and dirt-resistant



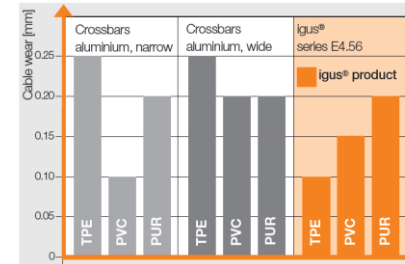
Graph 01: Wear test on a rolled trapezoidal thread lead screw

Little friction during dry operation



Rotating wear against stainless steel pin (1.4305)
F = 35 N, v = 0.5 m/min

Very high durability



Reduction of cable wear

1964: The idea

"Show me the plastic part that gives you a problem.

I'll provide you with a solution!" (Günter Blase, here with co-founder and wife Margret Blase)



Figures

- ▶ More than 200,000 customers worldwide
- ▶ More than 7,000 deliveries/day to customers
- ▶ Average order value: €365
- ▶ 34 subsidiaries + distributors in more than 80 other countries
- ▶ Consolidated turnover 2018: €748 million

Europe

Service and sales: 20

+ production: 4 (DE, UK, PL, IT)

Asia

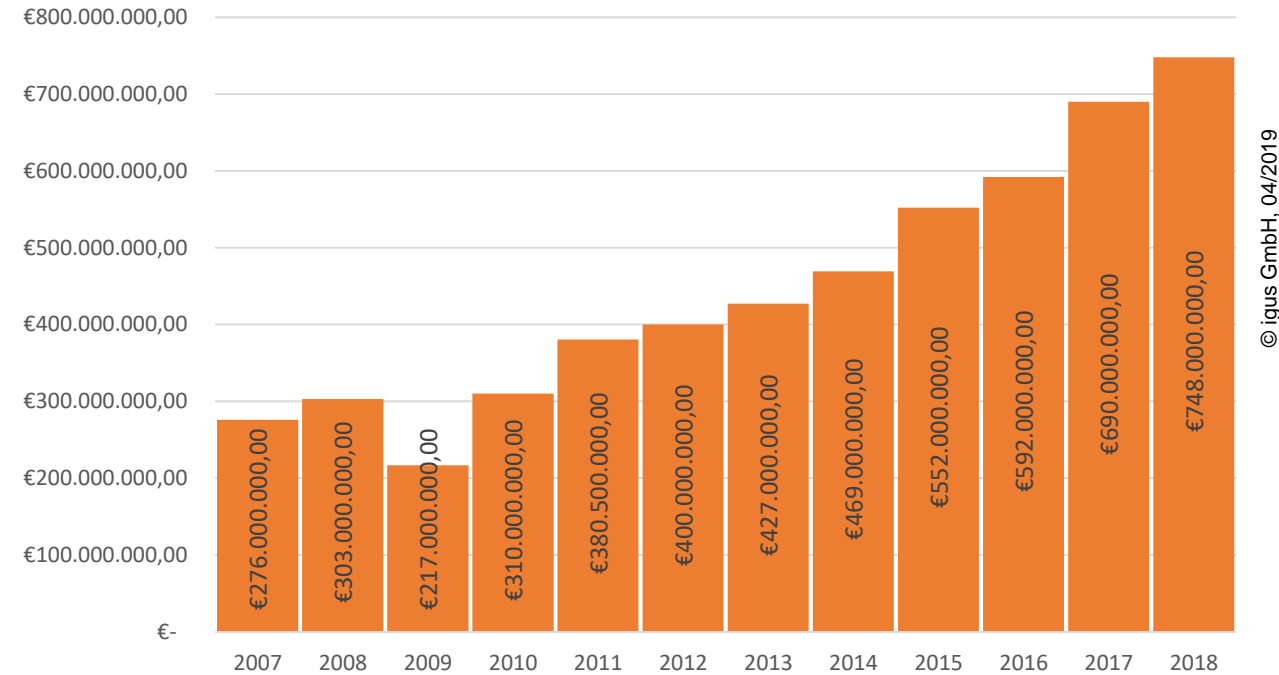
Service and sales: 10

+ production: 6 (IN, KR, SG, TW, JP, CN)

North and South America

Service and sales: 4

+ Production: 2 (US, BR)



What we do.

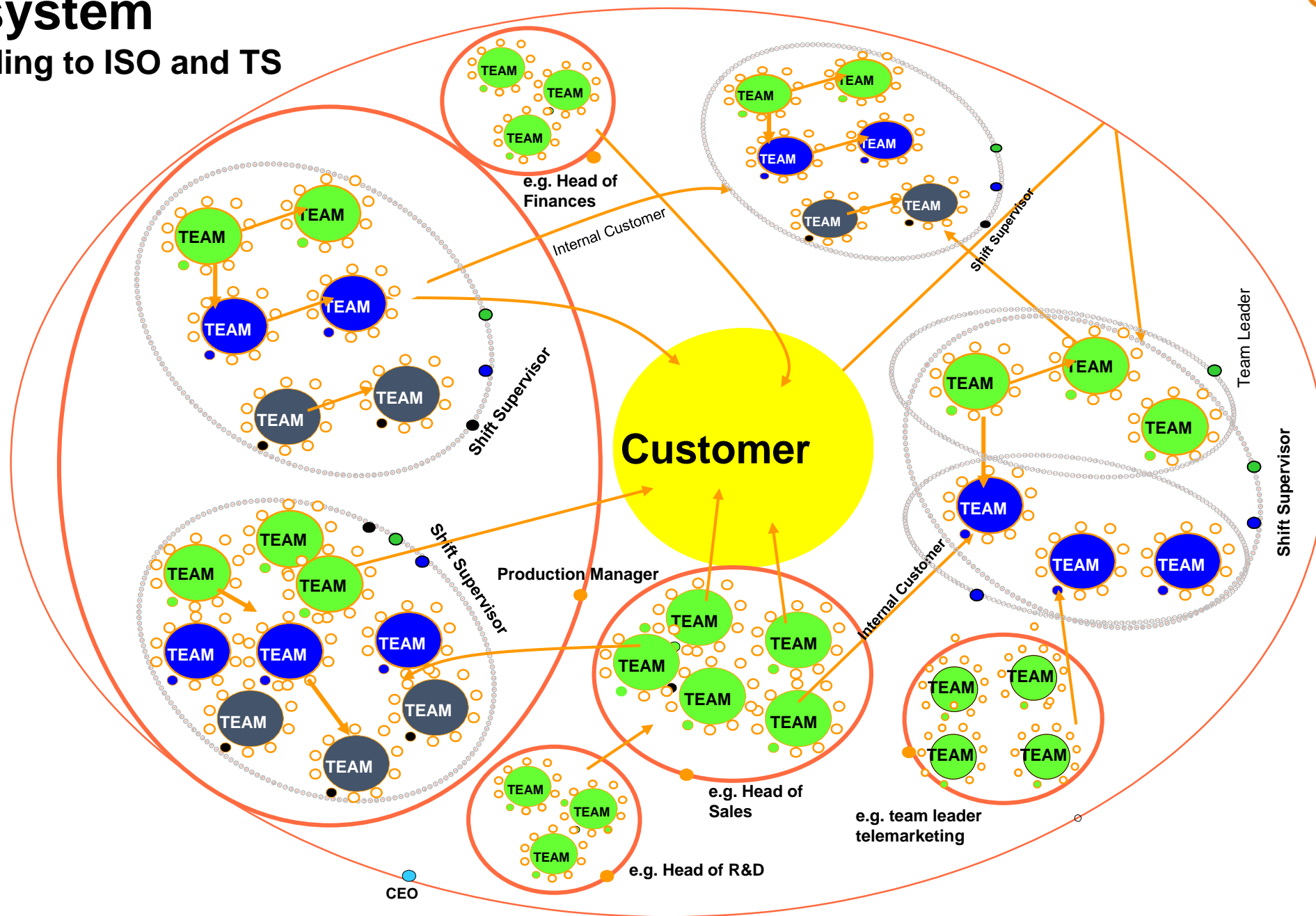
Who we are. (Or we think we are.)

What is on the horizon.

Who we are.

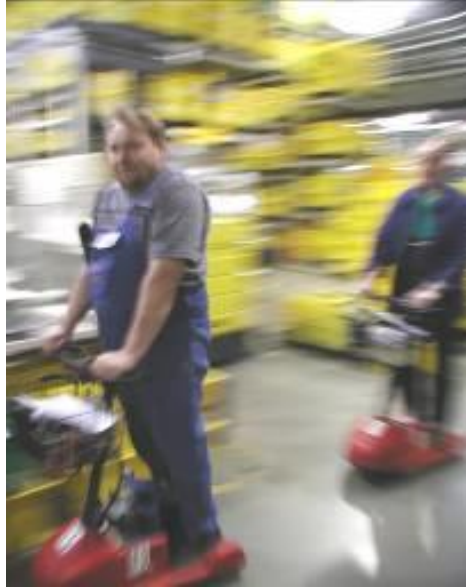
igus[®] solar system

Certification according to ISO and TS



Who we are.

igus[®] solar system today ...



Lean production with no minimum order quantity



Global standards



Liefern was die Kunden wollen.
Sofort.
Fehlerfrei.
Zu geringsten Kosten.



Build your igus® Management and Marketing Factory!

Area	Management	Marketing	Sales	Customer Service	Production	Logistics	Finance	HR
Management	Strategic Planning	Business Plan	Marketing Plan	Sales Plan	Production Plan	Logistics Plan	Financial Plan	HR Plan
Marketing	Market Research	Product Development	Sales Promotion	Customer Relationship	Production Control	Logistics Control	Financial Control	HR Control
Sales	Customer Acquisition	Product Sales	Sales Training	Customer Support	Production Support	Logistics Support	Financial Support	HR Support
Customer Service	Customer Feedback	Product Feedback	Sales Feedback	Customer Satisfaction	Production Satisfaction	Logistics Satisfaction	Financial Satisfaction	HR Satisfaction
Production	Production Planning	Product Development	Sales Planning	Customer Planning	Production Control	Logistics Control	Financial Control	HR Control
Logistics	Logistics Planning	Product Development	Sales Planning	Customer Planning	Production Planning	Logistics Control	Financial Control	HR Control
Finance	Financial Planning	Product Development	Sales Planning	Customer Planning	Production Planning	Logistics Planning	Financial Control	HR Control
HR	HR Planning	Product Development	Sales Planning	Customer Planning	Production Planning	Logistics Planning	Financial Planning	HR Control



Build your igus® E-Chain Systems® Training Factory!

Area	Management	Marketing	Sales	Customer Service	Production	Logistics	Finance	HR
Management	Strategic Planning	Business Plan	Marketing Plan	Sales Plan	Production Plan	Logistics Plan	Financial Plan	HR Plan
Marketing	Market Research	Product Development	Sales Promotion	Customer Relationship	Production Control	Logistics Control	Financial Control	HR Control
Sales	Customer Acquisition	Product Sales	Sales Training	Customer Support	Production Support	Logistics Support	Financial Support	HR Support
Customer Service	Customer Feedback	Product Feedback	Sales Feedback	Customer Satisfaction	Production Satisfaction	Logistics Satisfaction	Financial Satisfaction	HR Satisfaction
Production	Production Planning	Product Development	Sales Planning	Customer Planning	Production Control	Logistics Control	Financial Control	HR Control
Logistics	Logistics Planning	Product Development	Sales Planning	Customer Planning	Production Planning	Logistics Control	Financial Control	HR Control
Finance	Financial Planning	Product Development	Sales Planning	Customer Planning	Production Planning	Logistics Planning	Financial Control	HR Control
HR	HR Planning	Product Development	Sales Planning	Customer Planning	Production Planning	Logistics Planning	Financial Planning	HR Control

Who we are.

A place for innovation



A place for experts in hundreds of professions and fields



A place from where it is possible to conquer the world

"#1 in motion cables"

(Press conference November 2015)



A place for research and development



What we do.

Who we are. (Or we think we are.)

What is on the horizon.

World-class **igus®** factory: 95% (99%?) supply or inform.



"Everything we do increases the product's value"

"A focus on the person"

"Entrepreneurial decision in the team"

"Smart means EASY"

LEAN living.

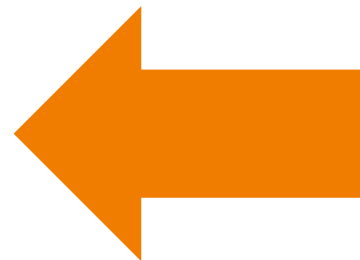
All staff follow a lean approach in their thought, work and deeds.

Delivery is part of the **PRODUCT**.

What is on the horizon.

igus® "SUPER FAST"

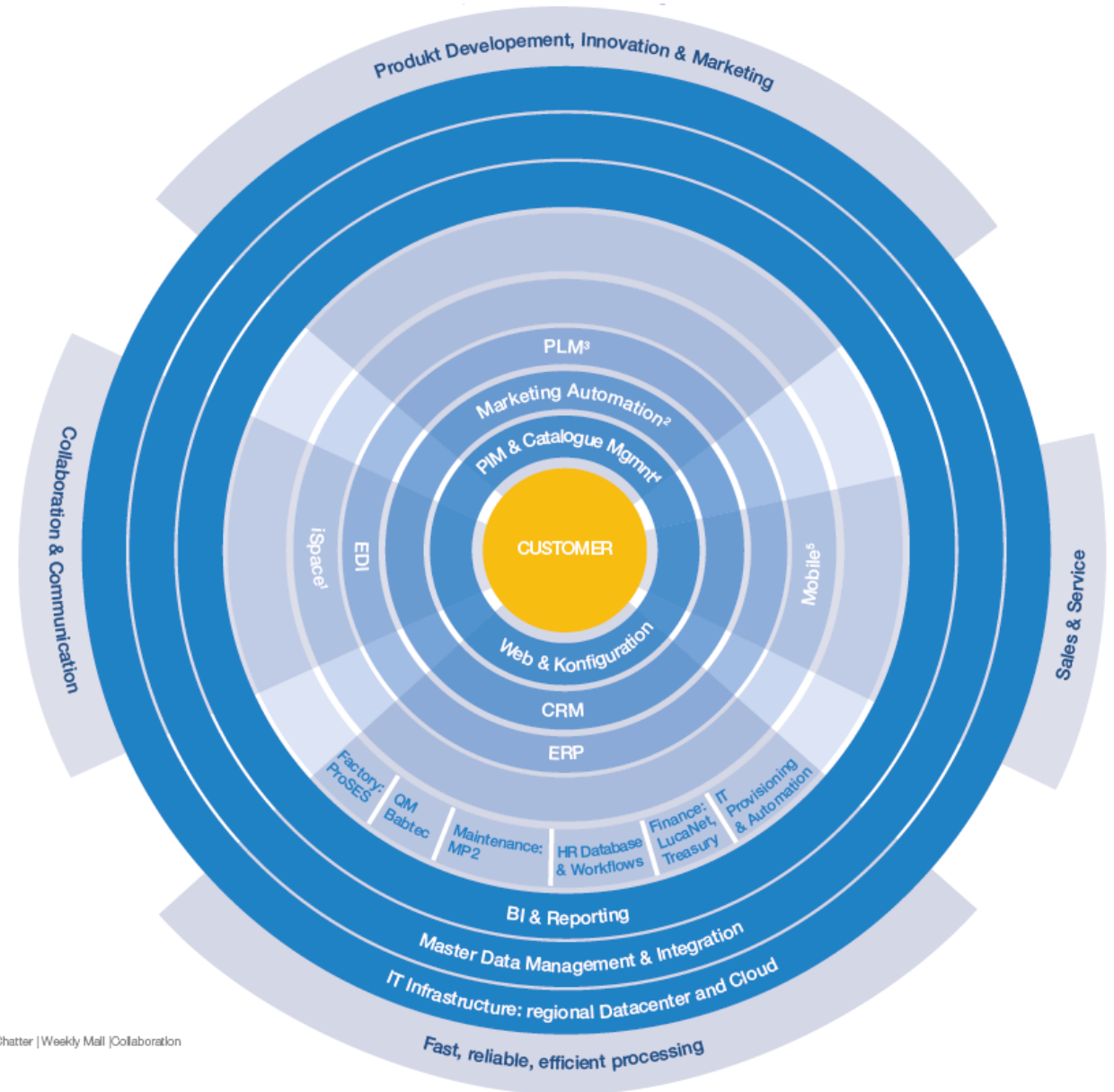
In the morning, we receive a complicated order that we have never put together before but we still deliver the same evening.



Industry 4.0 ... digital automation

igus® "WONDERWORKS"

- ▶ From the first contact
- ▶ to online configuration & simulation,
- ▶ to automation-supported production and service.



PIM: Product Information Management
PLM: Product Lifecycle Management
MDM: Master Data Management
CRM: Customer Relationship Management
EDI: Electronic Data Interchange

¹ Skype for Business | Telephony Solutions | Outlook | Chatter | Weekly Mail | Collaboration

² Newsletter automatisaton

³ Product development

⁴ One source for all (marketing) data

⁵ Tablets | Saleskit | all Tools available | ... everywhere

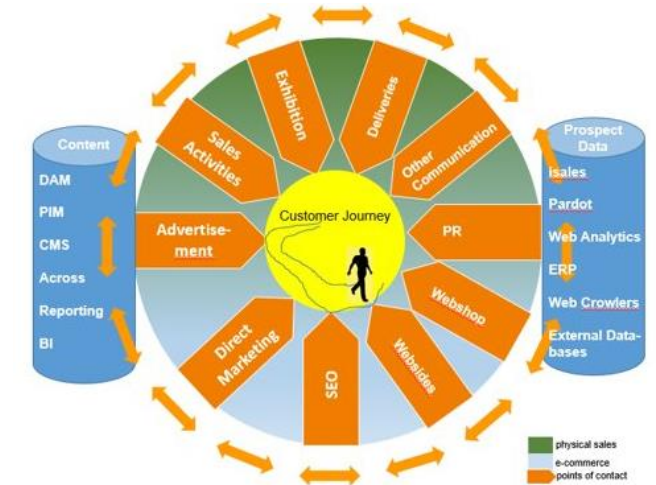
WonderWorks

Digitisation of production processes
"Customer contact until delivery"



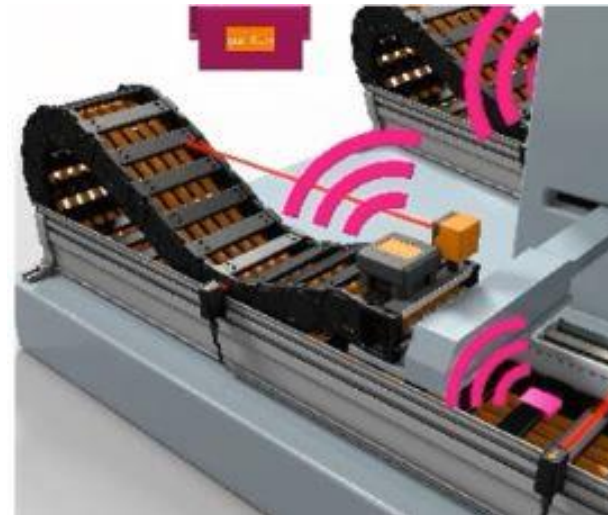
DreamMachine

Customers are not pressurised and quickly
find exactly the information they need.



isense

smart plastics

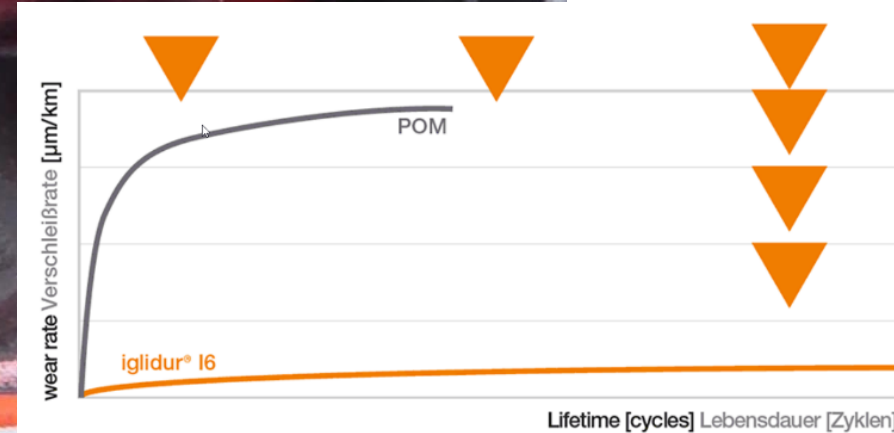
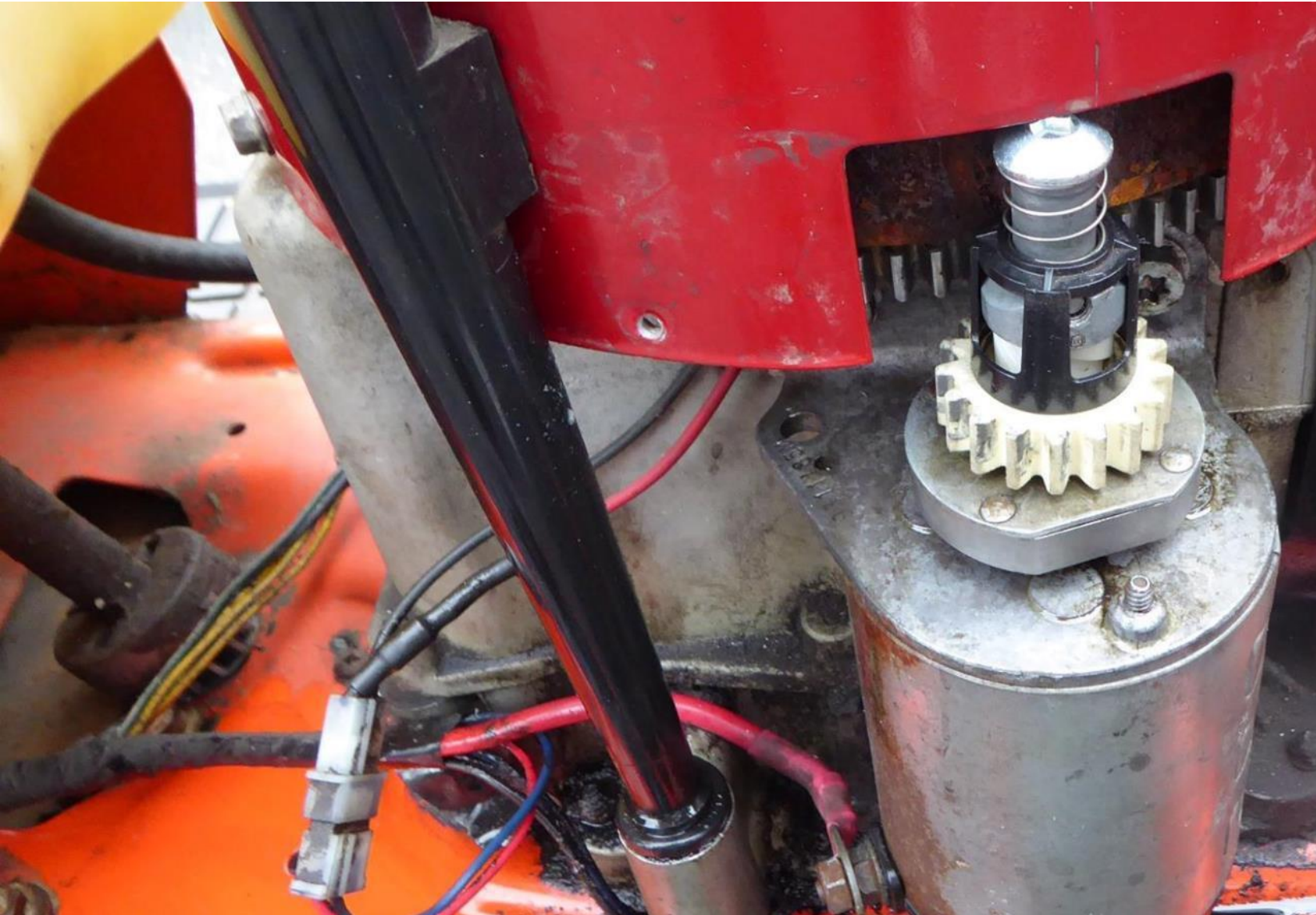


Smart motion plastics
products that, when being used,
know how long they will last.

Development of "start-ups"



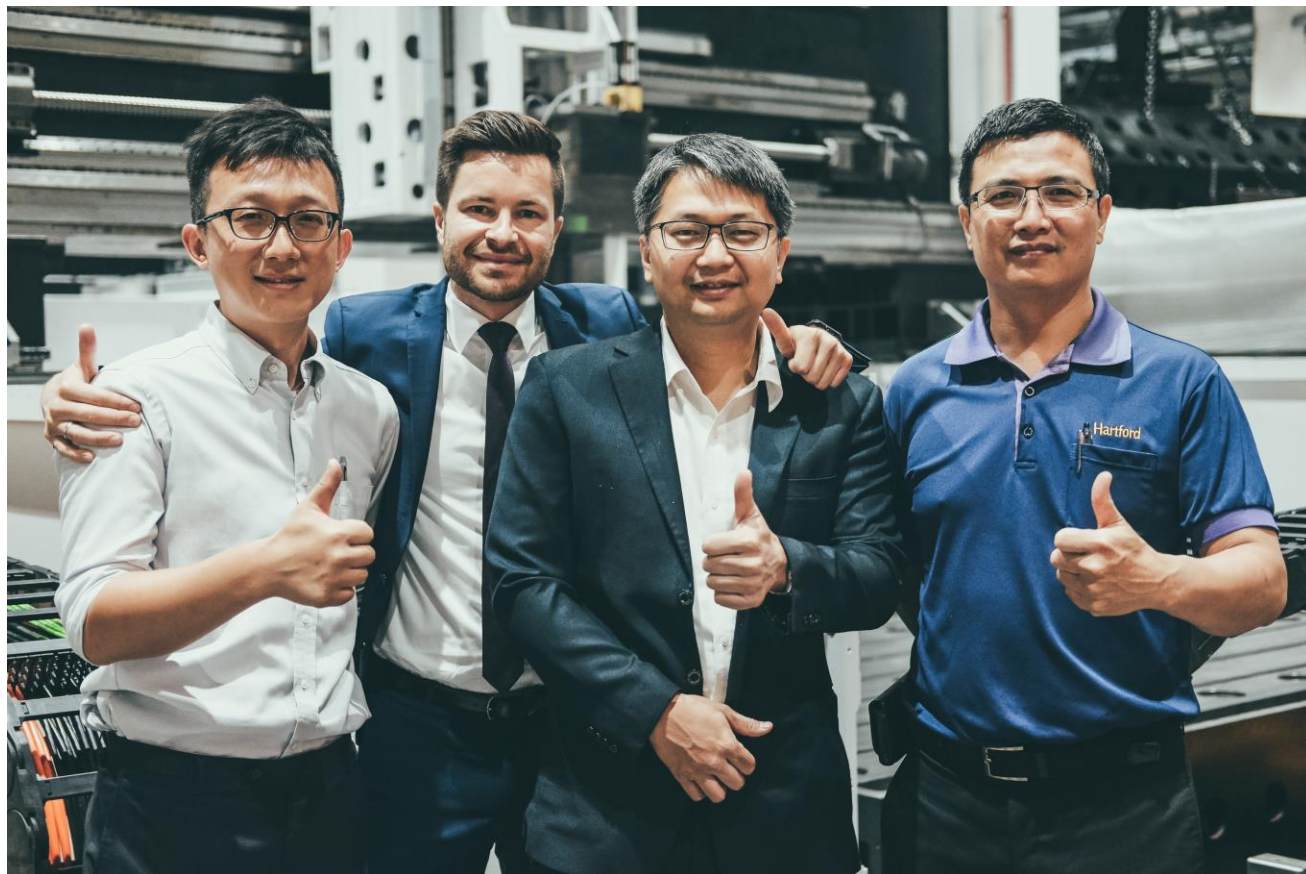
Stay hungry ... invent ... discover



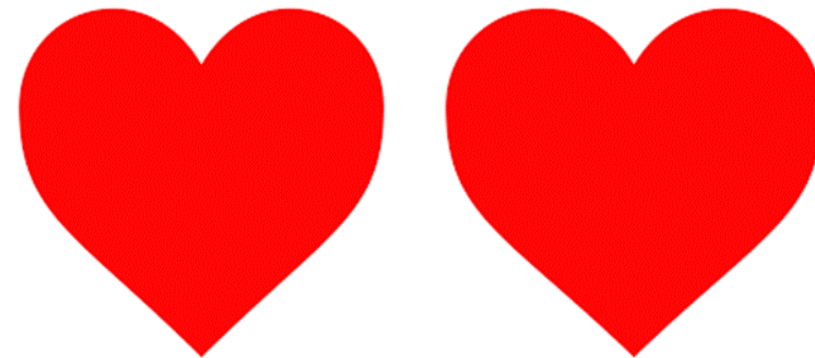
What is on the horizon.

Continually rekindling the enthusiasm of our customers

igus



"The igus readychains are installed in less than half a day instead of taking several weeks."

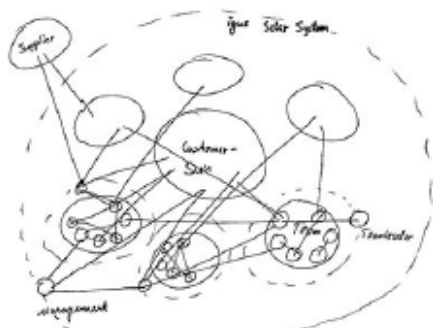


Better self-management organisation

"How can 2,000 people feel like they are in a family company with 50 people?"

- ▶ "No more bosses!"
- ▶ "Give me the customer!"
- ▶ "Everyone is a manager!"
- ▶ "Success for our people through the success of their customers."





igus SOLAR SYSTEM (since 1986)
<https://www.igus.eu/info/company-about-igus>:
 „I need no boss. Give me the customer! I am the manager!“ (since 1990) „To manage: to finish something successfully.“
 We want our customers to say, „Wow, they are good!“

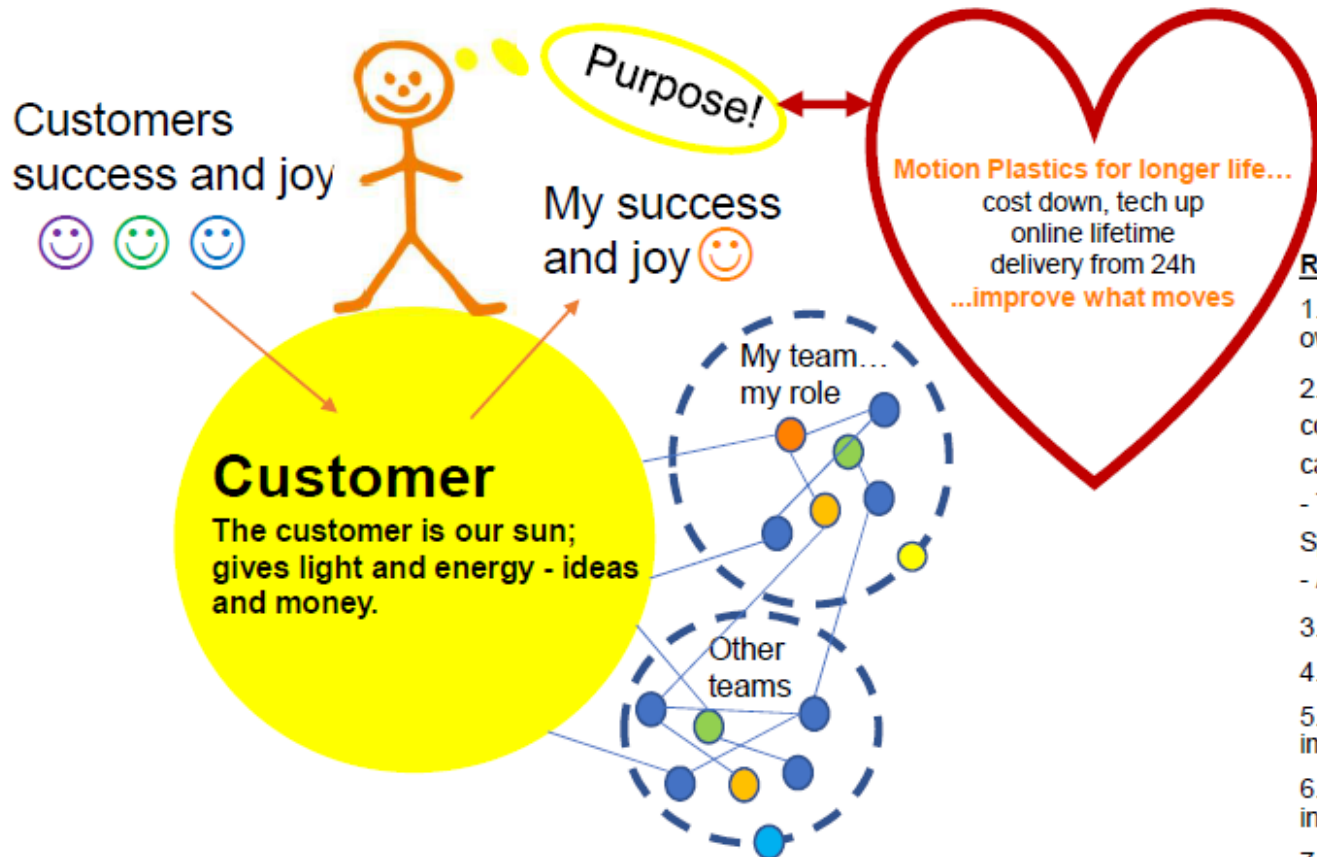


GUIDING STARS: PERFECT motion plastics:
P Performance. Transparency, measurability. High goals and standards. One Thing(s).
E Easy. Simplify. Make it easy for all, customers and colleagues.
R Right. Do it right the first time.
F Fast. Customers love speed. Deliver or inform.
E Efficiency. Do more with less. The cheapest solution that works is the best. Frugality (or: "finding profits in funny places")
C Clarity. ... Honesty, Truth, Respect, in all we say, write, do.
T Tons of Innovation. Invent, experiment, learn and be curious

and the second F:
F Success and FUN for our people, through the success (and fun) of their customers.
 (PLUS: the second, the „wrong F“, is the realization that nothing is perfect, but the strive for perfection drives us.)

igus Drivers

Success for me and my colleagues through the success of our customers



Rules of working together

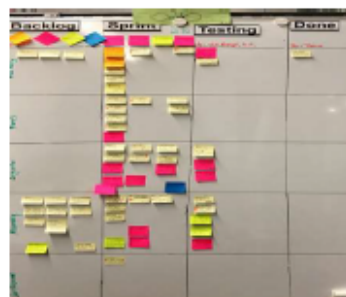
1. Free will – nobody acts against his own will
2. If a job/role is chosen then with full commitment to excellent work. „Yes, we can“ (since 1992).
- Targets, KPI's, transparency, Scrum-Sprints, Lean Projects
- Absolute transparency and honesty
3. Clear decision rights; Decide & Inform
4. Deliver or inform to all
5. Everyone in the team participates on improvement projects (see no. 2)
6. Everyone can criticize everyone else in a constructive manner
7. Encourage, help and reassure your colleagues
8. Respect, politeness and friendliness to everyone
9. Disagreement desired, KnockKnock desired
10. Conflict management steps
 1. Team
 2. Moderator from the team
 3. HR or VP
 4. CEO

Tools

ips igus production system **Scrum, Agile, BPR** **Solar System**



5S
Kaizen
Value Stream



Transparency
 (you can't manage a secret)
KPI's: Speed, Quality, Productivity...
Decision Rights



...and more



Manuals:
 Management System,
 Complaint handling,
 Customer Service and more.

**igus® dream: Improve what moves...
with motion plastics®.**

