



Elaphe Propulsion Technologies

SaleSqueeze BB, 19.11.2019

What we do #1

What we do #2

Elaphe In-wheel motor vehicle tests

High speed / Braking tests / Skid pad / Dynamic corse / Acceleration

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Zalazone test track
Zalaegerszeg HU



DEWESoft®
measurement innovation



Elaphe snapshot

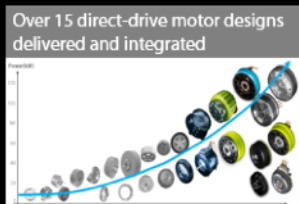
- ✓ World leading and patented technology
- ✓ Complete set of knowledge and experience in-house
- ✓ Complete direct drive in-wheel electric powertrain
- ✓ Working with renowned OEMs and Tier1
- ✓ Frequently awarded and recognized globally
- ✓ Roots in 1980s, formally established in 2006



Gorazd Lampič
Founder & CEO & Best manager 2017



Gorazd Gotovac
CTO – Rising star in Automotive 2018



Large family of motors



Largest number of applications



Most powerful in-wheel motor



Market ready technology



Some of Elaphe awards



Large partner network

Luka snapshot

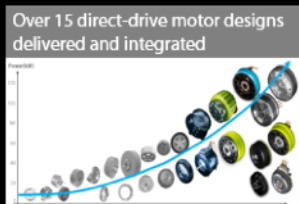


Luka A.

CSO, CMO, (sometimes) COO/CFO 🤔

=
Head of Sales

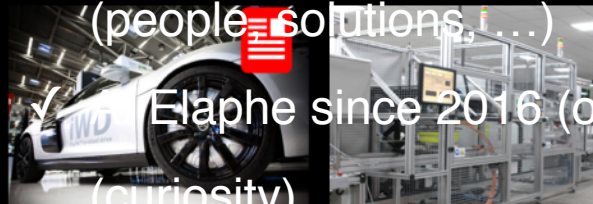
- ✓ MSc in Robotics
- ✓ Been selling since 1st grade of elementary school
- ✓ Sold shoes, Tended bar, Worked in Science (SLO, FIN)
- (Wearable robotics, exoskeletons, autonomous robots)
- ✓ Not a nobel scientist. Great writer of reports and articles.
- ✓ Love for technology, creativity, and connecting



Large family of motors



Largest number of applications



Most powerful in-wheel motor



Market ready technology



Some of Elaphe awards



Large partner network

(people solutions, ...)
✓ Elaphe since 2016 (officially, ... 2020)
(curiosity).

✓ Month 1: wrote & won 1.1 mln EUR project.

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TURNING THINGS
AROUND

Leading-edge propulsion technology



Highest in-wheel performance on the market



Manufacturing oriented design, short time-to-market



A plug & play modular powertrain platform

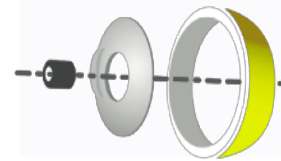


Use of standard rims, brakes and bearings



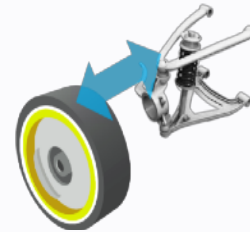
Light weight:

Global leaders in specific torque with the lightest electromagnetic design for high-performance direct-drive (up to 100Nm/kg)



Smarter packaging:

Compact ring-shaped electromagnetic design (up to 460 Nm/liter) with less complexity



Modular & simple integration:

Unified, modular platforms reducing vehicle manufacturing and R&D costs.



Direct drive:

No mechanical transmissions, less weight. Key benefits for optimizing precision and responsiveness

System approach – a platform to build on

Custom development based on requirements / Industrialized products off-the-shelf

Direct drive motors



- High-torque
- Standard corner components
- Different voltage levels
- Scalable

Power electronics



- Up to 200 kVA
- SW optimized

Multiple-Motor Control / ECU



- Traction control
- Torque vectoring
- Battery control
- Condition monitoring
- Connected = DATA
- Autonomous-ready

HMI / Infotainment interface



- Driving mode selection
- User interface
- Propulsion control settings

IN-WHEEL MOTOR BASED PLATFORM

Prepare for uncertainty
Leverage partnerships
Drive transformational change
Redefine the value proposition



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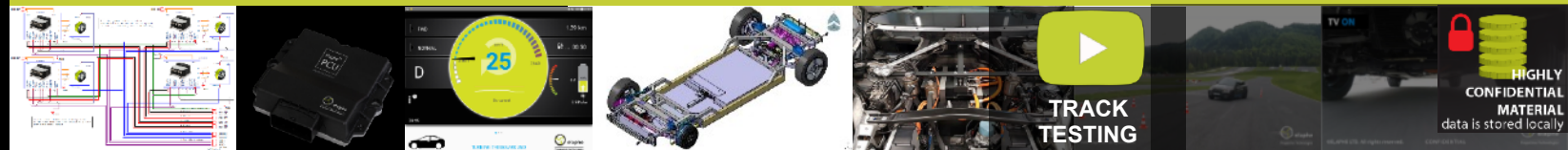
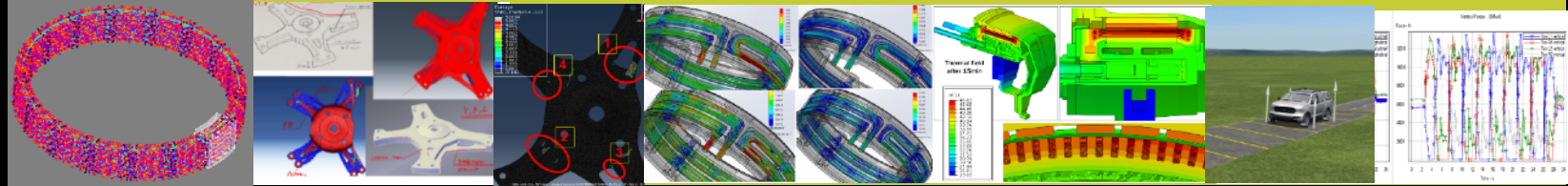


Propulsion Technologies

www.in-wheel.com

customer@elaphe-ev.com

From concept to mass production



Production processes, machines and line



A system approach

SCALABLE

Across size, weight, performance and function, Light EVs and motorcycles to alpine snow rescue vehicles

VERSATILE

From small city EVs, to performance cars, from delivery vehicles to people movers and large public transportation

SW DRIVEN

New business models, unlocking potential through advanced functions

INTERCHANGEABLE

New feature, new user value. Upgradable and interchangeable.

CUSTOMIZABLE

Technology concept designed for maximal flexibility of servicing and mechanical interfaces

ENABLING TECHNOLOGY

A solution that simplifies and enables new forms of mobility and new types of vehicles.

Industry went from **Automotive** → **Mobility**.
Elaphe enables **all** with solutions.



Problem? Challenge? → Need?

We are not a typical company. Or are we?

Problem? Challenge? → Need?

We are not a typical company. We have typical processes.

OK. But our product and process is super-specific. It different than everyone else's for sure.

Or is it?

Problem? Challenge? → Need?

We are not a typical company. Or are we?

OK. But our product and process is super-specific. It different than everyone else's.

As it turns out, once you abstract to a higher level, we have the typical challenges and needs:

Problem? Challenge? → Need?

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OK. But our product and process is super-specific. It different than everyone else's, for sure.

As it turns out, once you abstract to a higher level, we have the typical challenges and needs:

POOR TARGET SEGMENT DEFINITION (focus)

SALES IS TOO REACTIVE, NOT PROACTIVE

**MOST OF THE DAY IS SPENT ANSWERING MUNDANE
EMAILS**

**QUALIFICATION/ONBOARDING PROCESS IS NOT WELL
DEFINED**

DATA IS POOR QUALITY

DATA ENTRY IS MANUAL AND NOT USER-FRIENDLY

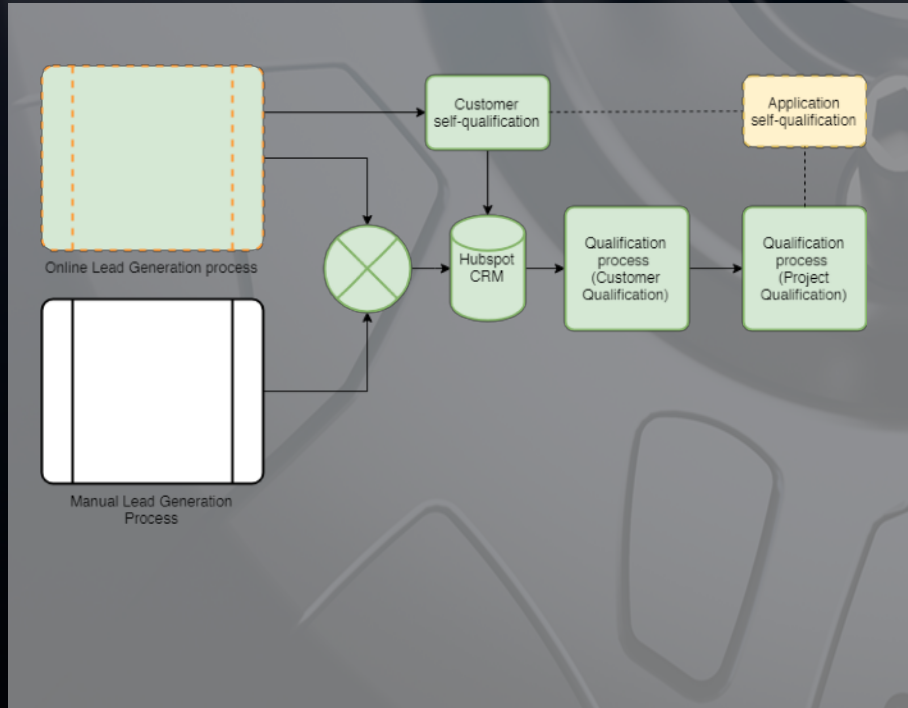
NOT CONNECTED WITH OUR INTERNAL SaaS TOOLS/ERP

DOING ANALYTICS IS A PAIN IN THE ASS!!!



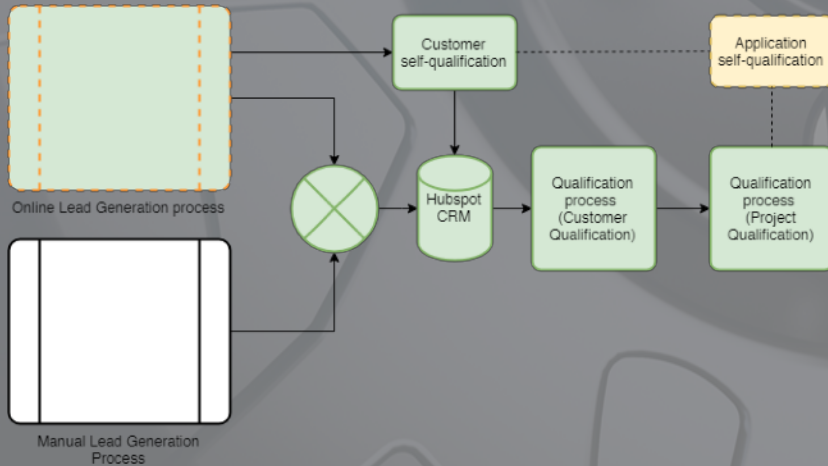
SOLUTION: Digitalize | Automate | Connect | Empower

Describe the process



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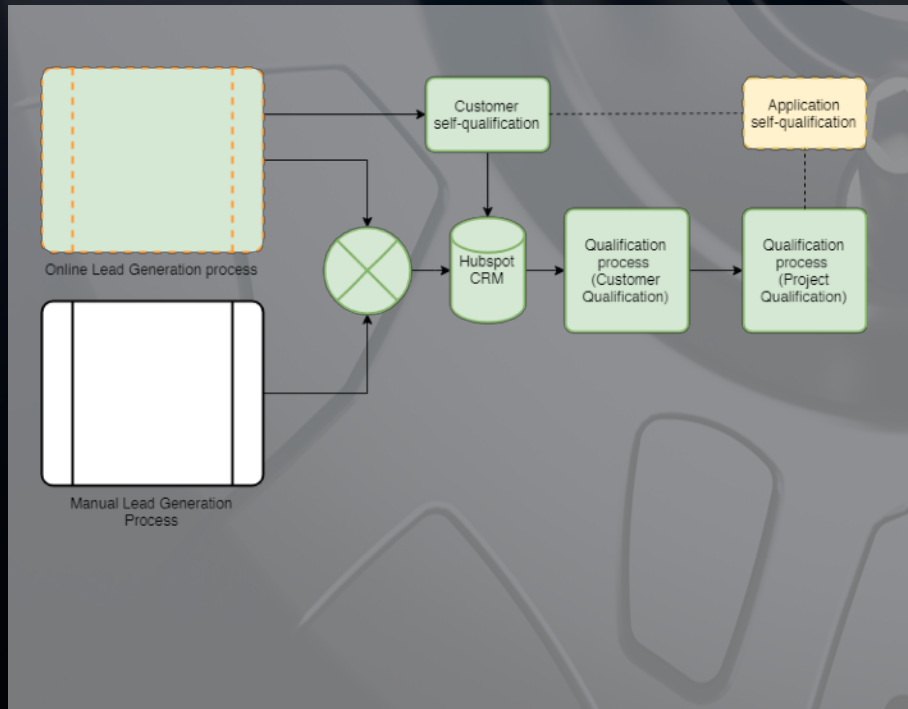
Digitalize the process

The screenshot shows a web form titled 'Inquiry' with a progress indicator at the top right showing '1 Inquiry', '2', and '3'. The form contains the following sections:

- I am interested in:** A dropdown menu with 'Prototype vehicle electrification project' selected.
- Powertrain solution includes:** A list of checkboxes, all of which are checked:
 - ☒ In-wheel motor
 - ☒ Motor controller with software
 - ☒ PCU - Powertrain control Unit (Multiple wheel controller)
 - ☒ PCU integration with VCU/vehicle systems
 - ☒ PCU advanced functionality (dynamic wheel/vehicle control, torque vectoring, custom algorithms)
- I represent a/an:** A dropdown menu with 'Automotive OEM' selected.
- Expected role of Elaphe:** A list of checkboxes, all of which are checked:
 - ☒ Service/Engineering provider
 - ☒ Motor supplier
 - ☒ Technology provider
 - ☒ Powertrain supplier
 - ☒ Platform electrification partner
- Next step:** A green button at the bottom right.

SOLUTION: Digitalize | Automate | Connect | Empower

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Digitalize the process

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SOLUTION: Digitalize | Automate | Connect | Empower



Connect

Remove manual data entry

Enable analytics and traceability

Use a single tool to drive productivity

Use the website as a testing tool

See which call to action works and not

Am I communicating the right things?

ANALYZE → TEST → PDCA!

SOLUTION: Digitalize | Automate | Connect | Empower



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Automate

Qualify automatically

Enable customers to tell us what they want
clearly

Empower the sales team to guide the
customers

Configure the pipeline and run the funnel

Shorten the cycle time/inquiry turnover

TALK TO MORE CUSTOMERS!!!

GENERATE MORE REVENUE!!!

SOLUTION: Digitalize | Automate | Connect | Empower



=

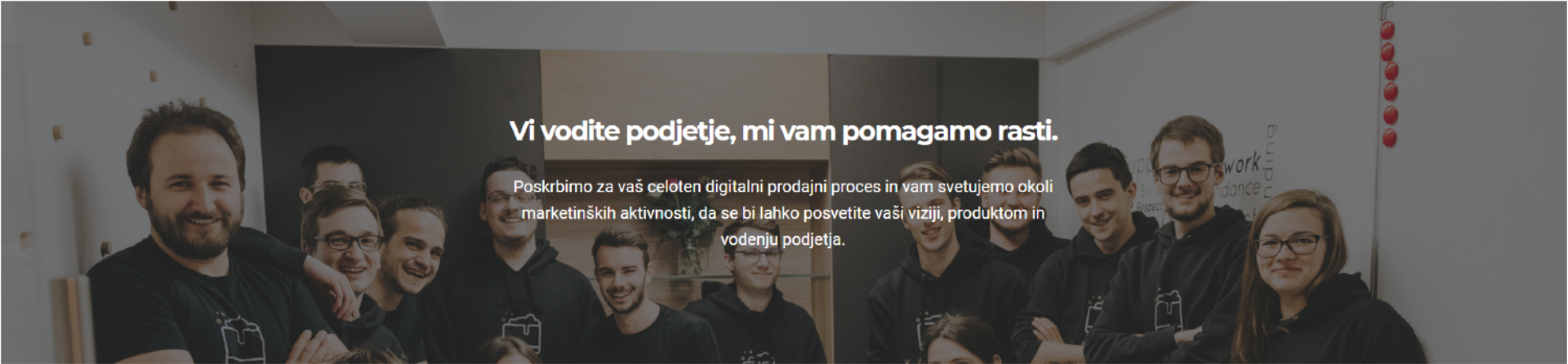
- ✓ 90% less emails
- ✓ 50% more qualified inquiries
- ✓ 100% more clear customer expectations
- ✓ Fast recognition of project potential
- ✓ Seamless integration with website and SaaS tools
- ✓ Customizable for our needs
- ✓ Added value for our partners and customers
- ✓ 1000% more (accurate) data 😊
- ✓ 10000% simpler analytics

Ví vodíte podjetje, mi vam pomagamo rasti.

Poskrbimo za vaš celoten digitalni prodajni proces in vam svetujemo okoli marketinških aktivnosti, da se bi lahko posvetite vaši viziji, produktom in vodenju podjetja.

Customer Satisfaction





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WHY?

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Customer Satisfaction 😊

WHY?

- The team is learning, applying to practice = I get the combined know-how of all the companies they work with.
- They know the sales (marketing) funnel. We need someone to break it down to simple steps and give us the Lego's.
- The guide you through the process design. It's interactive, and it is the only way to success. Mentors + Guides.
- The framework works, and it only improves with time. (NOT A FULL USER YET)
- Responsive (team, not only design). Professional, dedicated, fast.
- The process is good, but can always be better.

