

Laser blanking application for the automotive industry



Xavier Beudaert

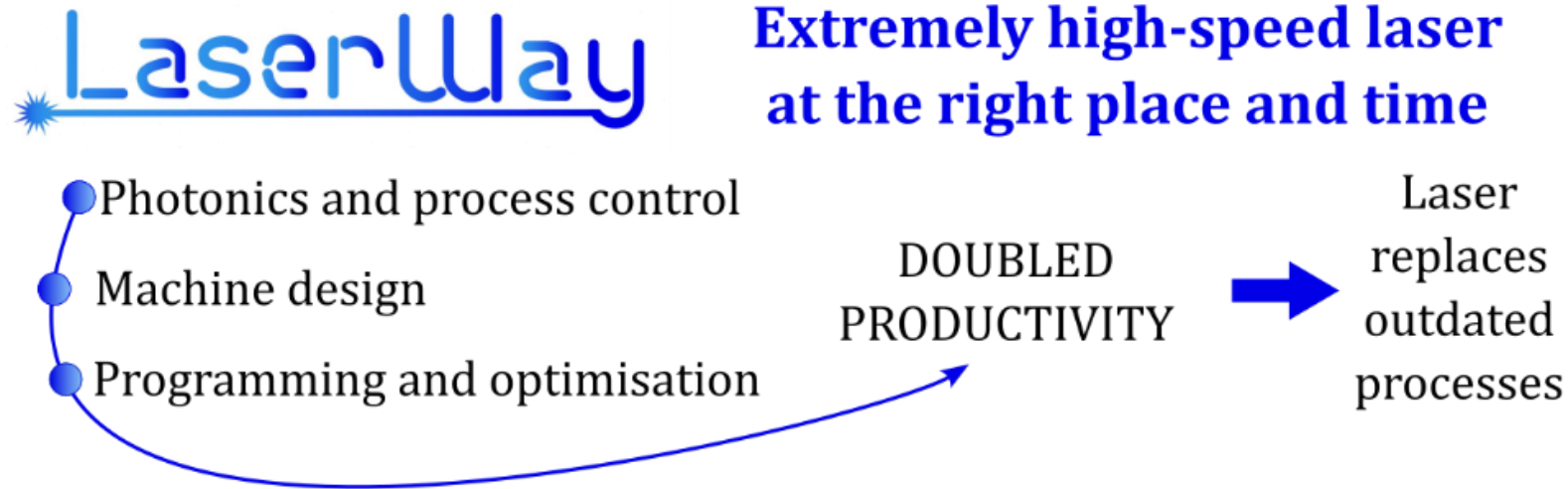
LaserWay European project



Horizon Europe LaserWay - 101138739
January 2024 – December 2026

Objective:

replace outdated, inefficient, rigid and environmentally harmful conventional methods
by introducing highly flexible production lines
based on
high-speed laser technology



*This project has received funding from the European Union's Horizon Europe research and innovation programme under Grant Agreement No #101138739.
This result only reflects the author's view and the European Commission is not responsible for any use that may be made of the information it contains.*

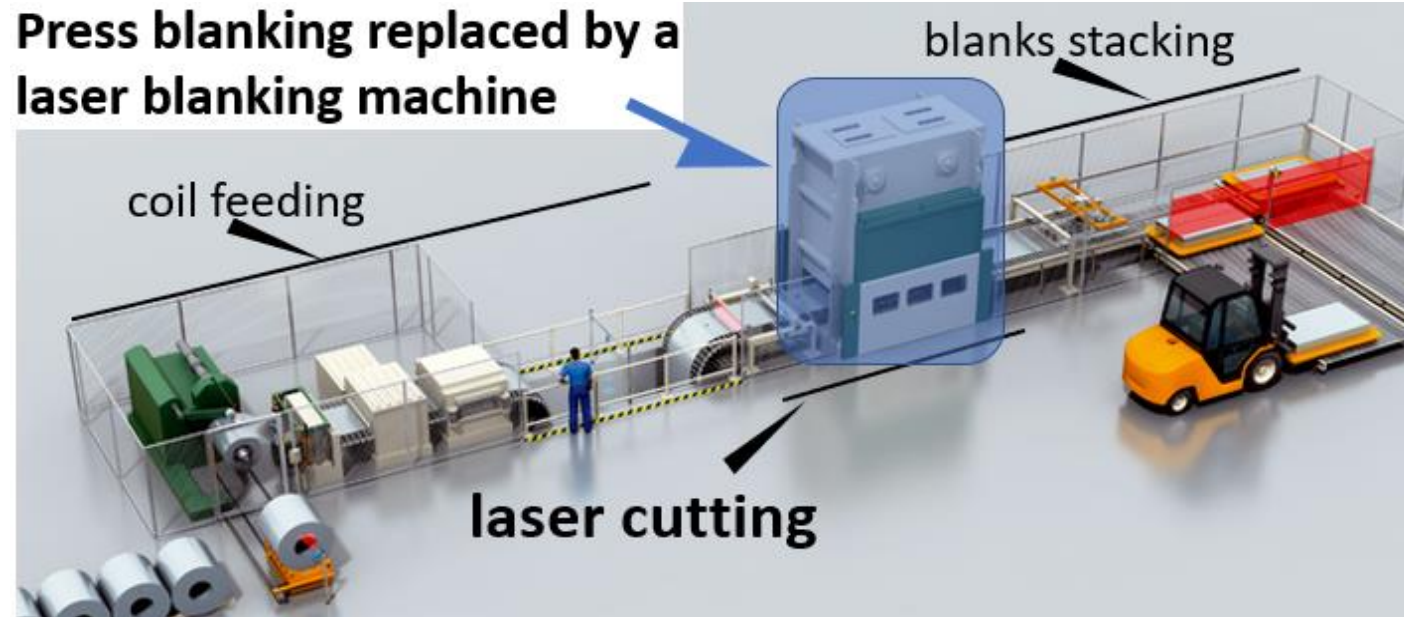
Automotive blanking – industrial context

Classical press blanking solution



[Hybrid press blanking line for automotive by Fagor Arrasate - YouTube](#)

Laser blanking replaces press blanking



Current technology

DIE

- high productivity
- high tooling cost
- long setup time
- die storage
- wear

adapted to 20th century industry

A 3D illustration of a press machine. The machine is labeled 'PRESS' and 'DIE'. It shows a die being used to cut a piece of metal.

Future technology

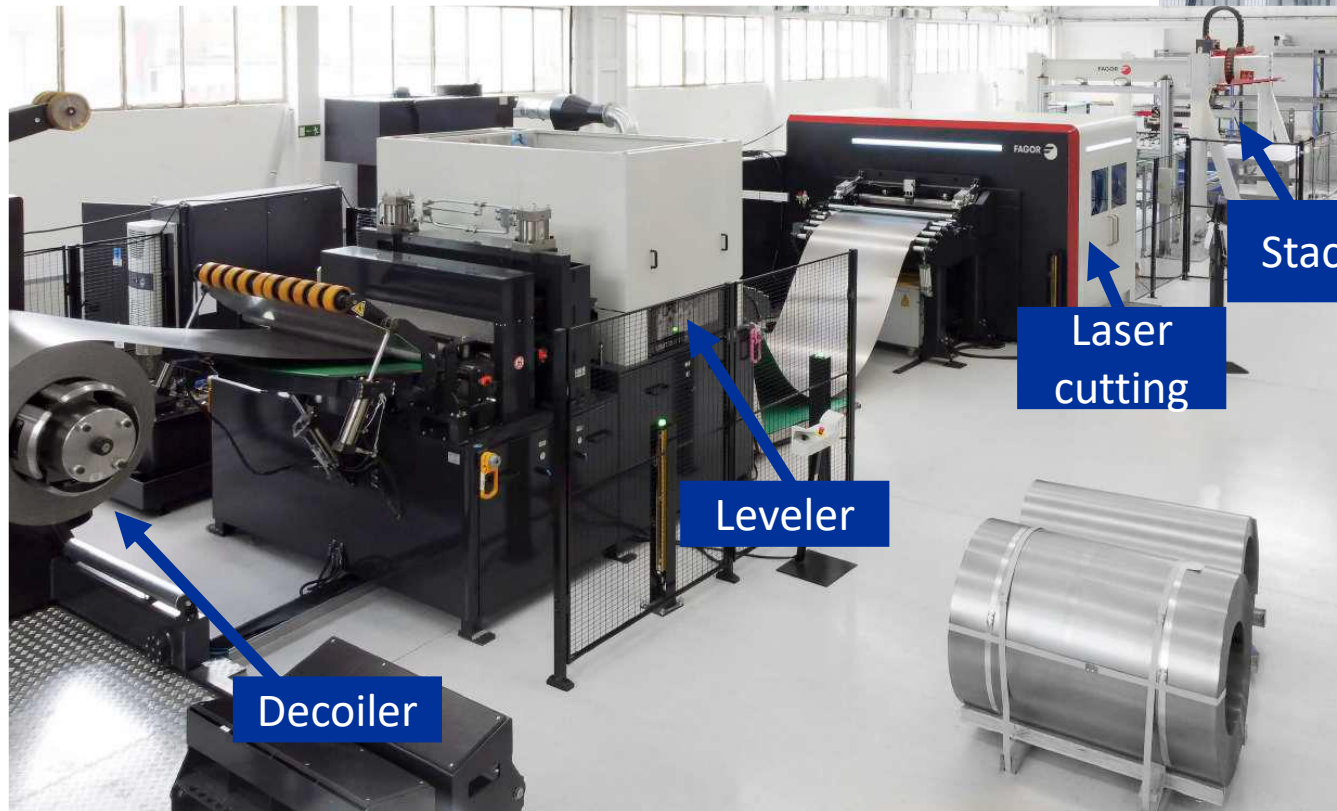
LASER

- medium productivity
- high flexibility
- fast setup
- programmable
- optimum material use

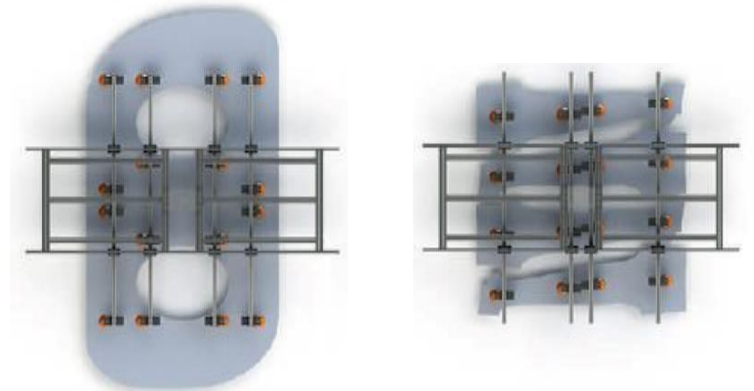
for industries of the 21st century

A 3D illustration of a laser cutting machine. The machine is labeled 'LASER CUT'. It shows a laser beam cutting through a piece of metal.

Laser blanking line

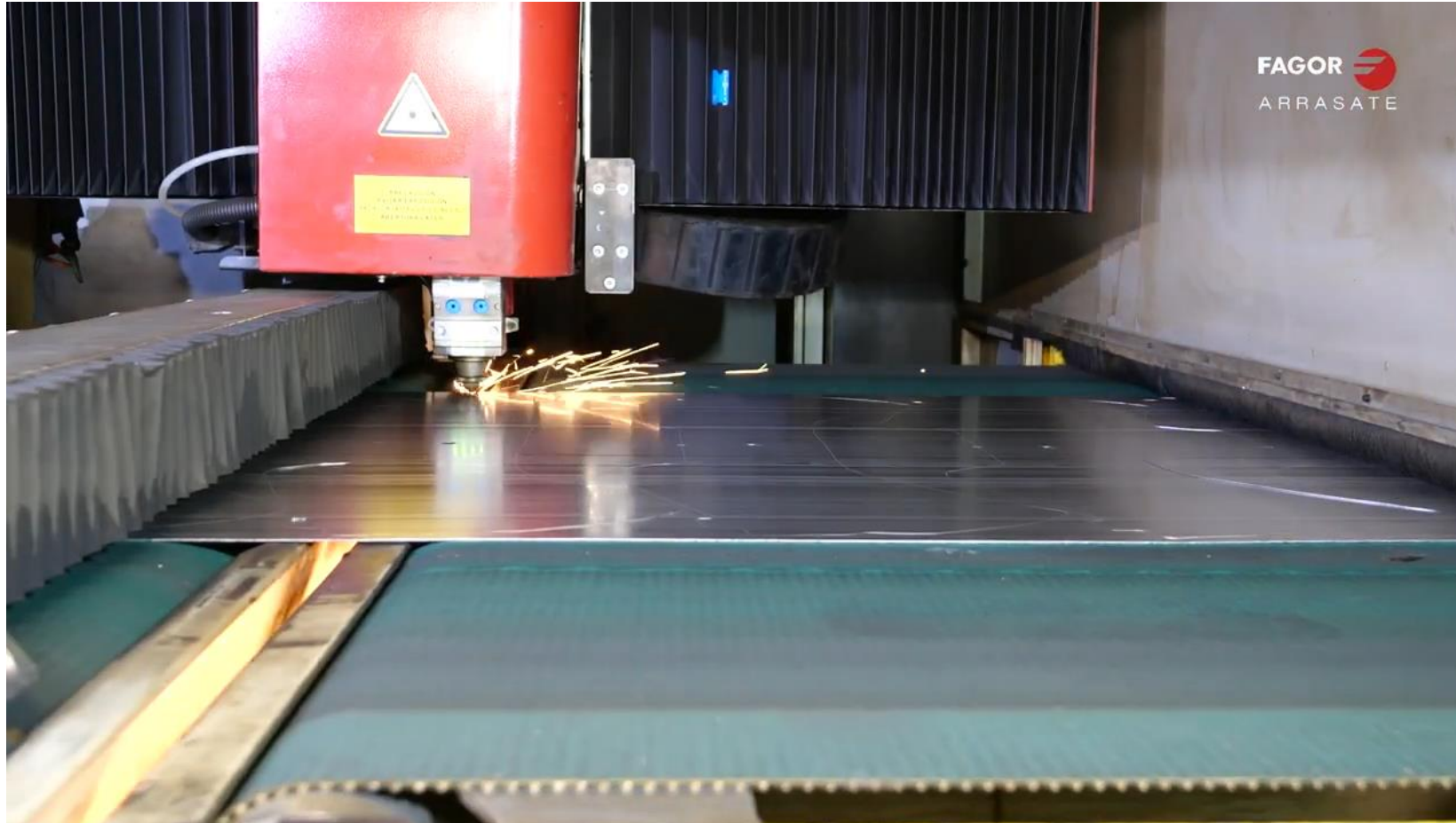


Flexible robot stacker



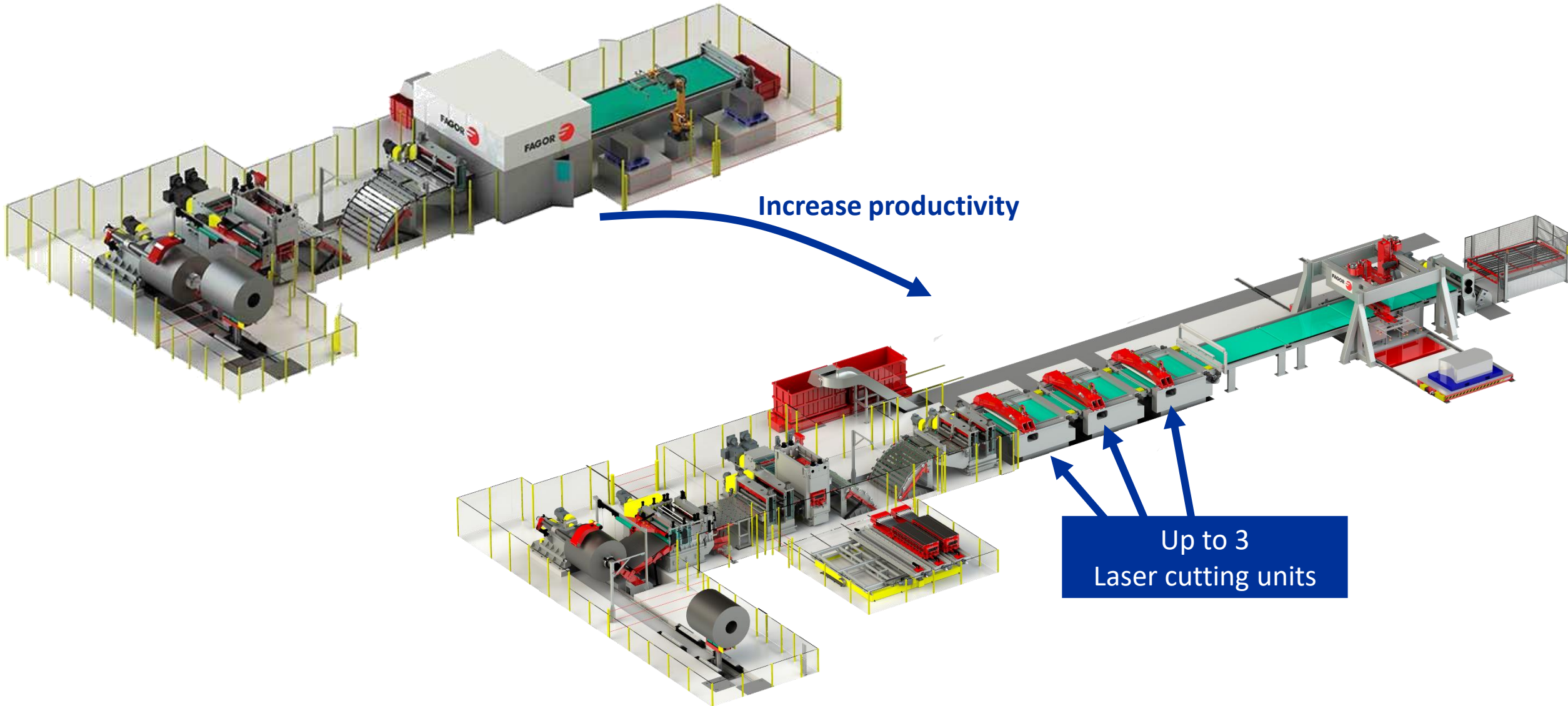
Laser blanking of Fagor Arrasate

Continuous cutting on moving coil



[Laser Blanking line](#)

Laser blanking



Increasing productivity of laser blanking

LaserWAY project:

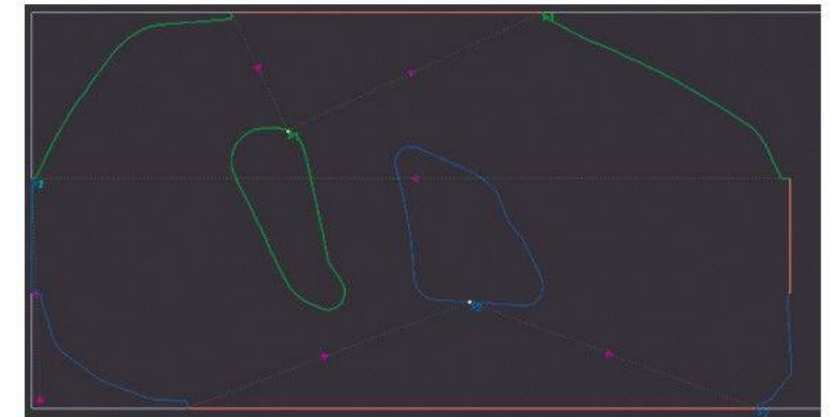
- **WayFASTER** machine
 - 6G of acceleration with innovative light weight design
 - Online vibration minimization techniques
 - Offline programming optimizations
- **WayBETTER** process
 - Improve gap control
 - Automatic detection of loss of cut
- **WaySTRONGER** digital integration
 - Resilient production line to process failure

→Objective 2026

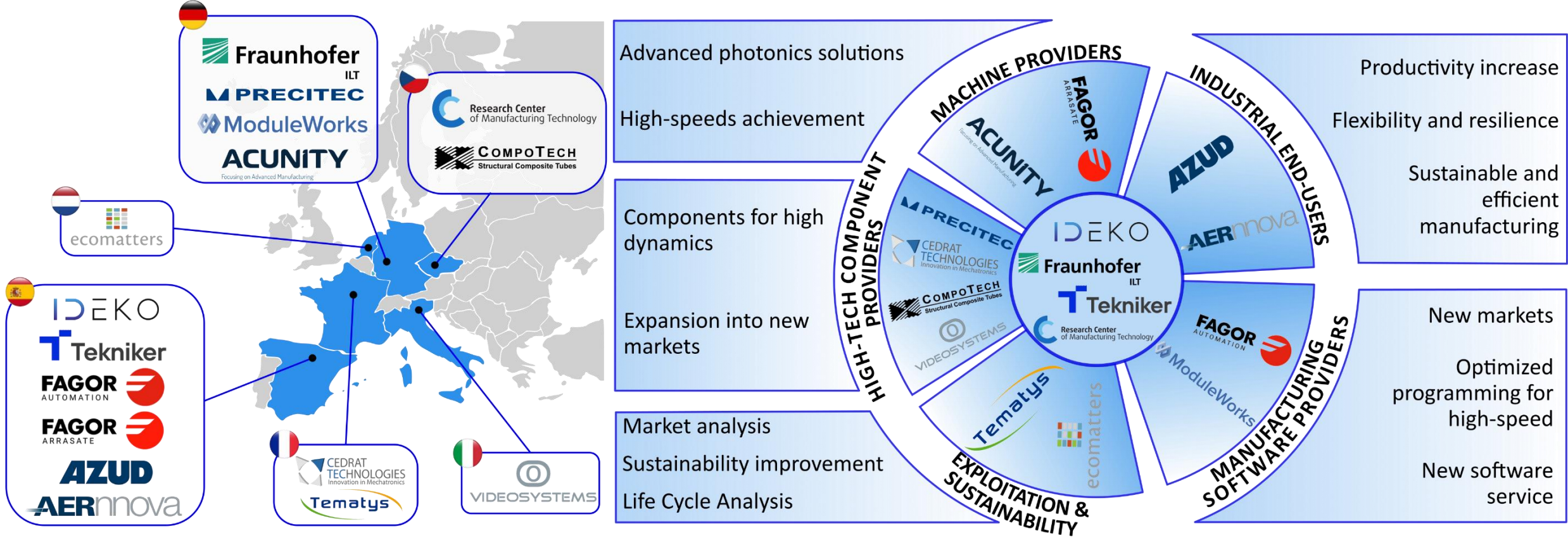
X-gap technology to remove scrap



Cutting repartition between laser 1 & 2



LaserWay Consortium



16 partners

January 2024 -> December 2026

Conclusion

LaserWay

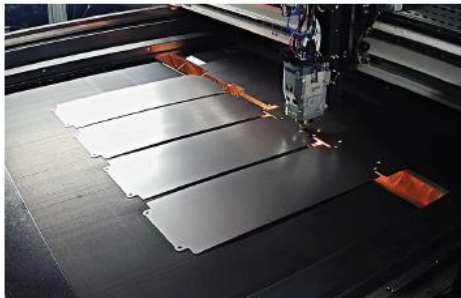
**Extremely high-speed laser
at the right place and time**

- Photonics and process control
- Machine design
- Programming and optimisation

DOUBLED
PRODUCTIVITY



Laser
replaces
outdated
processes



Laser Blanking



Micro Drilling



EHLA

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Thank you for your attention



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