REMANET
IT REMAINS

Independent companies, one virtual remanufacturer

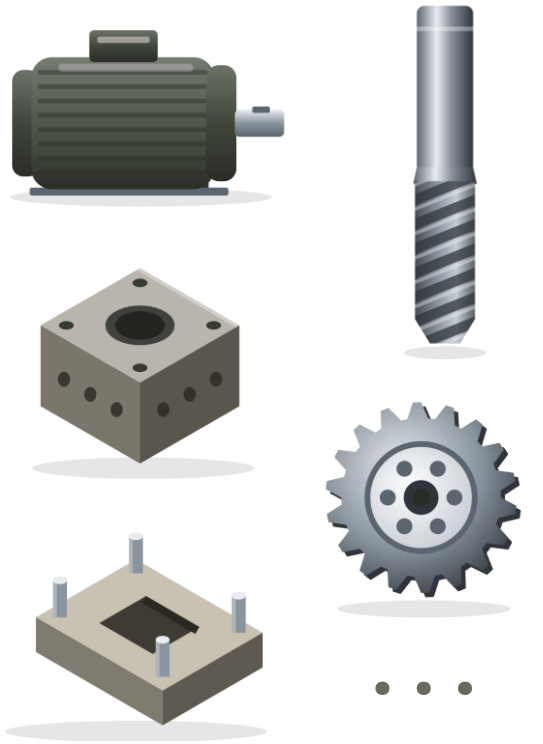
RemaNet final results · EFFRA Manufacturing Partnership Days · Brussels, 17 November 2026

Paolo Albertelli
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Funded by
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The challenge: only a few companies can do it all

MANY END-OF-LIFE PRODUCTS



ONLY A FEW HIGHLY SPECIALIZED ACTORS



ONE COMPANY DOES EVERYTHING

- **KNOW-HOW** (engineering expertise)
- **ADVANCED TECHNOLOGIES**
- **PRODUCTION CAPACITY**
- **INSPECTION & QUALITY CONTROL**
- **CERTIFICATION COMPETENCE**

LIMITED NUMBER OF PARTICIPATING ACTORS

Know-how stays locked inside companies, data are not shared, networks are missing

Where we started: two inspiring business models

REFERENCE BUSINESS MODEL 1

IFIXIT

USER-CENTRIC MODEL



User → Platform knowledge → Repair

STRENGTHS

- ✓ Knowledge sharing
- ✓ User empowerment

LIMITATIONS

- ✗ User performs the whole process
- ✗ Limited industrial scalability

REFERENCE BUSINESS MODEL 2

Swappie

COMPANY-CENTRIC MODEL



User → Platform → Internal refurbishment

STRENGTHS

- ✓ Professional service
- ✓ Quality control

LIMITATIONS

- ✗ Centralized capabilities
- ✗ Limited diffusion of remanufacturing
- ✗ Product-specific specialization

WHAT IF NO SINGLE ACTOR HAS ALL THE REQUIRED KNOWLEDGE, TECHNOLOGIES AND CAPABILITIES?

Neither business model enables distributed collaboration among independent actors

Our answer: one virtual remanufacturer

CENTRALISED MODEL



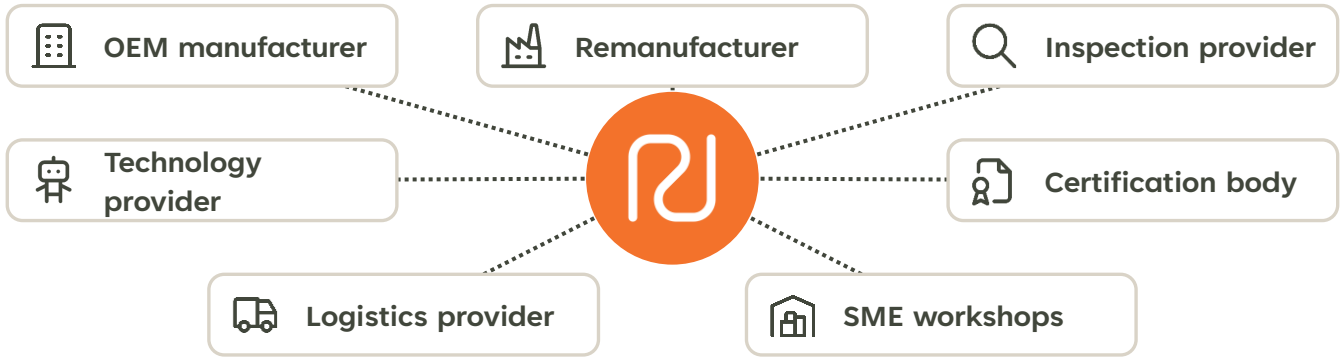
LIMITATIONS

- ✗ Limited scalability
- ✗ High entry barriers
- ✗ Concentration of know-how

One actor performs all remanufacturing activities

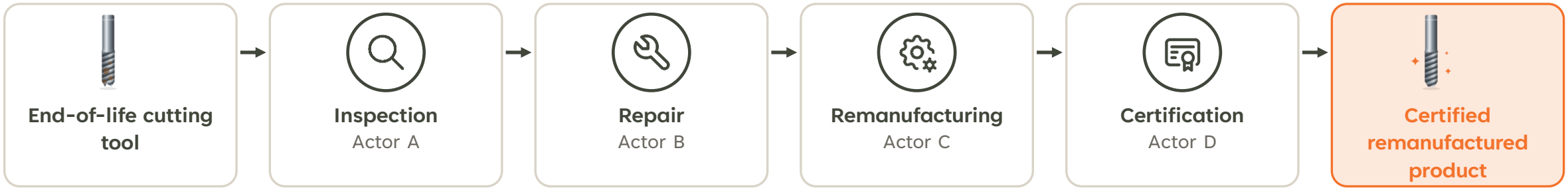
TRANSFORMS

REMANET'S NEW PARADIGM: DISTRIBUTED REMANUFACTURING



Multiple independent actors operate as a single remanufacturing company

EXAMPLE: ONE PRODUCT, FOUR INDEPENDENT ACTORS



NO SINGLE ACTOR NEEDS ALL THE REQUIRED KNOWLEDGE, TECHNOLOGIES AND CAPABILITIES

RemaNet federates competencies, data, services and production capacities across Europe

What RemaNet delivers: three results, one ecosystem

1 THE MODEL

A network, not a single company

› Distributed remanufacturing

› Federated, independent actors

› Value-sharing principle

+

2 THE PLATFORM

Knowledge, matching and trusted data

› Expert knowledge formalised (ontologies)

› Strategy suggestion, even for new products

› Demand–supply matching of actors

› Digital product passport, sovereign data

+

3 METHODS & TECHNOLOGIES

What makes remanufacturing possible

› Functional upgrade of products

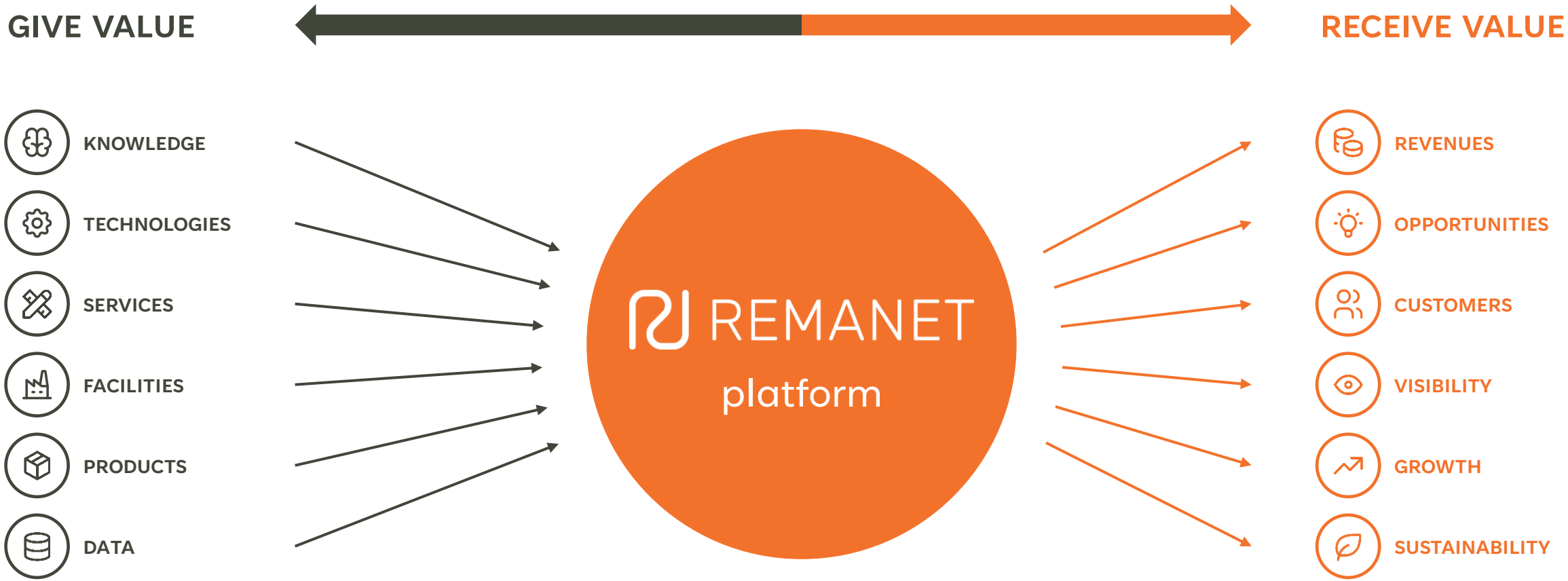
› Repair technologies

› Support tools for non-experts

! **THE PLATFORM MAKES THE METHODS ACCESSIBLE**

The methods give the platform something concrete to offer: RemaNet is more than an idea and a platform

Give value, receive value



KNOWLEDGE AND NEW IDEAS BECOME DIGITAL ASSETS

Whoever brings a strategy, a know-how or an idea is rewarded every time the network uses it

Flagship: a functional upgrade for electric motors

WHY MOTORS

~380 M

electric motors installed in Europe

~60 %

of the installed base is still inefficient

Rare earths

needed by most high-efficiency magnet motors

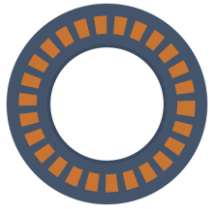
Source: EU-MORE D2.1, European electric motor market assessment

THE REMANET IDEA: KEEP THE STATOR, CHANGE THE ROTOR



Induction motor at end of life

Low efficiency class



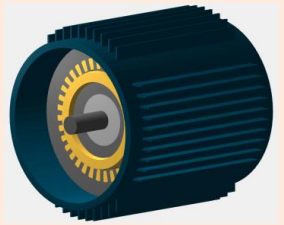
Keep housing and stator

Most windings and materials reused



New reluctance rotor

Redesigned and punched laminations



Upgraded motor

Towards IE3 · no magnets · no rare earths

A NEW IDEA, FORMALISED IN THE PLATFORM

The redesign method comes from a knowledge provider (SPIN) and can be applied by the whole network

A motor's journey through RemaNet

1 **Scan**

Nameplate photo creates the digital twin

2 **Strategy**

Knowledge base suggests what to do, even for unseen products

3 **Redesign**

New rotor computed for the specific motor

4 **Team**

Best providers matched on cost, time and energy

5 **Remanufacture**

Guided disassembly, every step recorded

6 **New life**

Monitoring and prognostics in operation

TRUSTED DATA: EACH COMPANY KEEPS ITS OWN DATA, THE WHOLE CHAIN STAYS TRACEABLE

Digital Product Passport

One passport follows the product across owners and lives (AAS standard)

Sovereign data sharing

Data space: each actor decides what to share, with whom

Immutable records

Certification evidence that cannot be altered

Platform modules demonstrated end to end on the electric-motor use case

Local dashboard · Digital twin / DPP · Data space · Knowledge base · Demand–supply matching · Coordination engine

From pilot to market: the motor business case

REFERENCE CASE: 1 PLANT · 100 MOTORS · 20 UPGRADE CANDIDATES · 6,000 H/YEAR

Fleet assessment	Redesign	Upgrade & reman	Monitoring	Passport & lifecycle
€30k	€40k	€120k	€20k	€10k
one-shot	*one-shot*	*project fee*	*recurring*	*recurring*

Revenues: one-shot + recurring services · rewards to knowledge providers · platform fund

FIRST TARGET MARKETS: MOTOR FLEETS IN THE TERTIARY SECTOR

Hospitals	Water treatment	District heating
Utilities	Food processing	Building services

€220k

pilot project value

~€80k / year

energy + maintenance savings

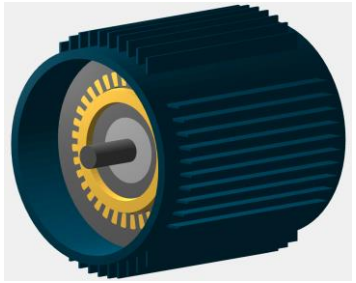
< 3 years

simple payback (~2.75)

Illustrative reference case, not a quotation: fleet data, upgrade costs and savings are being validated with industrial end users (Pilot 0).

Not only a platform: the methods behind it

REDESIGN & UPGRADE



› Functional upgrade of electric motors

› End-of-life part redesign

› Strategies reusable across product families

REPAIR TECHNOLOGIES



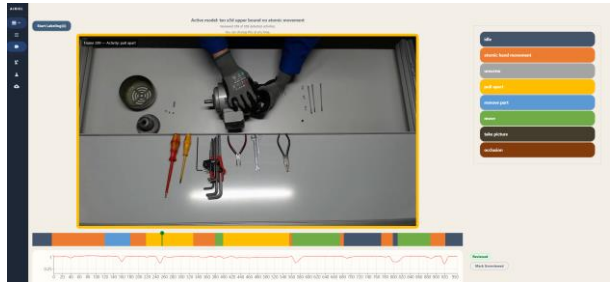


› Cold spray deposition

› Laser-based deposition (DED / cladding)

› Adaptive machining with process monitoring

SUPPORT FOR NON-EXPERTS

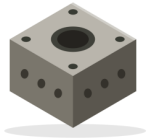


› Guided disassembly and inspection

› Step-by-step certification

› Prognostics, scheduling, value-stream simulation

VALIDATED ON FIVE INDUSTRIAL DEMONSTRATORS



Molds & dies



Cutting tools



Electric motors



Clutches



Compressors

Key exploitable results and what comes next

THE MODEL

- Distributed remanufacturing business model
- Value-sharing rules for federated actors

THE PLATFORM

- Knowledge base with remanufacturing ontologies
- Demand–supply matching
- Digital product passport and data space
- Coordination and certification services

METHODS & TECHNOLOGIES

- Motor functional upgrade (reluctance rotor)
- Cold spray and laser-based repair
- Adaptive machining and process certification
- Prognostics and health management
- Disassembly, inspection and planning tools

JOIN THE NETWORK

Pilot customers

Motor fleets to assess and upgrade

Technology & service providers

Machines, capacity, digital services

Knowledge providers

Strategies and new ideas, rewarded

Next steps

Pilot 0 with industrial end users · exploitation and funding roadmap

JOIN US TODAY: REMANET SIDE EVENT, 15:30–16:30

Roundtable on the open challenges of industrial remanufacturing · visit the RemaNet booth

REMANET
IT REMAINS

Thank you

No single company needs to own everything. Together, the network does.

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Funded by the European Union

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