



Turning Complexity into Clarity



**Improving
Reliability**



**Reducing
Risk**



**Structural
Integrity**



**Reducing
OPEX**



Wind Turbine Blade Reliability & Risk Resolution

Independent Blade Advisory for the Onshore & Offshore
Wind Industry

About VIA Wind

We help wind energy stakeholders address their most complex reliability and risk challenges. As independent specialists in blade engineering assessment and resolution, we turn complex situations into clear, actionable outcomes that reduce risk, enhance reliability and structural integrity, and protect asset value while optimizing operating costs.

Backed by over 20 years of experience across leading OEMs and tier-one blade suppliers, VIA Wind's founder brings a unique combination of deep blade engineering expertise and executive leadership in global warranty and service organizations. VIA Wind's approach is built on a well-rounded, collaborative mindset and a structured, field-proven methodology, grounded in an extensive track record of resolving complex challenges and enabling critical alignment in high-stakes situations.

Core Services

From rapid targeted interventions
to full 8D programs:

Blade Risk & Failure Resolution

- Forensic Failure Investigation
- Fleet Risk Assessment
- Immediate Risk Containment
- Root Cause Engineering Analysis
- Corrective Engineering Solutions
- Preventive Reliability Strategies
- Technical Alignment & Resolution Support

Engagement Models

We adapt to each situation and align with our clients' preferred level of involvement:

Advisory – Targeted expert input

Support – Specialized senior support integrated within client-led projects

Management – Full project leadership on behalf of client



Complementary technical and strategic services across the wind project lifecycle to reduce risk, optimize operating costs (OPEX), and enhance performance & reliability:

Blade Technology & Engineering

- Technical due diligence
- Design or Manufacturing Process review

Blade Supply Qualification & Quality

- Blade supplier assessment
- Quality surveillance and audits

Wind Farm Blade Reliability

- OPEX optimization through strategic O&M planning
- Special Blades inspection & monitoring choices
- Blade findings risk assessment
- Blade repair technical support

Wind Farm Performance

- Low performance Resolution
- Performance boost & upgrades feasibility

Warranty Strategies & Negotiations

- Warranty strategic optimization
- Claim & Settlement negotiations
- End of Warranty transition

End of life decisions

- Blade life extension feasibility
- Re-rotoring feasibility

Start-ups and companies moving into wind

- Technical, strategic and commercial advisory

Training

- Custom and tailored



About

VIA Wind Partnership model

Leadership at the Core • Depth and Scalability Through Trusted Partners

VIA Wind Partner Network

VIA Wind leads every engagement directly, drawing on a carefully selected network of independent subject matter experts and service providers when additional depth or scale is required.

VIA Wind remains accountable for overall project framing and the resolution path, overseeing and integrating deliverables from trusted specialists and service partners where needed.

This model is made possible by a deep industry network and extensive experience leading complex, multi-stakeholder projects, built over 20 years in senior roles at leading wind energy companies.

Capabilities available through our trusted partner network include:

Specialized Blade inspection

SCADA & Controller data analytics

Advanced Blade repair

Structural & Aerodynamics

Non-Destructive Testing (NDT)

Lightning Protection Systems (LPS)

Health Monitoring Systems (HMS)

Leading Edge Protection (LEP)

Composite Materials testing

Blade design for manufacturing

Blade tooling

Composite prototyping & processing

Wind farm performance assessment

Bolted connections

Blade Sensing systems

Contract Negotiation

One ecosystem. One clear path to resolution.

About

Romarc Thiebaut

Blade Engineering Specialist • Warranty & Lifecycle Reliability Leader

VIA Wind Foundations

Romarc Thiebaut founded VIA Wind in July 2025 with the vision of building a truly independent and indispensable industry leading brand in Blade Reliability & Risk Resolution. Romarc brings technical depth and a methodology shaped over 20 years of Wind Blade core engineering and real-world experience leading the resolution of the industry most complex challenges.

Romarc's industry experience

- 1. TPI Composites** **1.5 year**
Global director, Customer Warranty Mgt.
 Global fleet Warranty claim technical resolution CN/FR
- 2. Envision Energy** **6 years**
 • Head of Blades Lifecycle Mgt.
 Global Blade Warranty technical resolution and Service execution CN
 • Blade Technical Committee executive
- 3. Vestas Wind Systems** **13 years**
 • Service Engineering Specialist
 • 2MW Platform owner
 • Blade Module owner UK/DK/SP/GR
 • Blade Engineering Specialist
 • ≤ V112 legacy blade owner
 • Global Warranty Engineering support owner
 • Global Blade Repair Specification owner
 • MED SBU Technical support
 Blades & Mechanical components field engineering resolution
 • Blade Process & Materials Engineer
 Optimizing materials cure speed in 24h production project
- 4. LM Wind Power (warranty customer of)** **18 years**
 Global Technical leader for Warranty resolution of outsourced LM Blades SP/IN/CN

Romarc's languages

• Business fluent: French · English · Spanish
 Advanced: Chinese · Portuguese

The list below is a selection of successful projects delivered either as VIA Wind service or at prior companies. Track records prior to VIA Wind are limited to cases where VIA Wind members acted in leading roles, such as Technical Leader (TL), PM, or Executive Director, and in no particular order. *For obvious confidentiality reasons, no company names nor project details are mentioned below.*

Technical – Large Projects

1. Blade Lightning Protection System (LPS) resolution

Process: Triggered by abnormal high blade tip lightning failure rate on several blade products, lead a team of lightning experts, blade designers and external providers towards the development of new certified Blade LPS integration solutions. The project delivered on two tracks: design changes for production products & reliability upgrades for wind farm retrofits - both backed by real-world wind farm operation data for verification and validation

Value created: Significant reduction in failure rate and related OPEX

40GW+ service fleet

TL
3 years

2. Standstill rotor edgewise vibration resolution

Process: Built & lead a cross-functional internal team of experts; deep dived into blade structure, rotor aeroelasticity, turbine control and power backup systems; test & verify preventive & corrective actions

Value created: New Blade Design & Turbine Operational guidelines significantly reducing failure rate & OPEX at 3 levels: reducing vibration occurrence; raising blade structural robustness and verifying a new feasible blade repair solution

20GW+ operational fleet

Platform PM & Blade TL
1,5 years

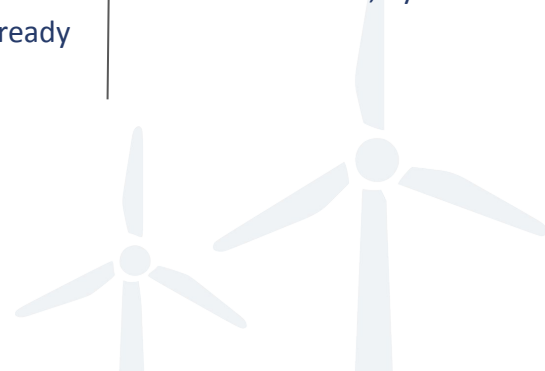
3. Blade Tip extension

Process: Owning the structural design, lead a cross functional engineering team towards a succesful aero design, prototyping, test and certification

Value created: Successful & patented technology project with ready products for 3 blade types

Technology for 3 blade models

Blade TL
1,5 years



4. Re-rotoring Engineering

Process: Lead a cross-functional internal team of experts (Tower & Foundations, Drive Train, Loads & Control, etc...) while acting as Blade expert. Driving a holistic turbine rotor size-up feasibility study on 3 turbine types

Value created: 1st re-rotoring project (80m to 90m rotor) accepted by investor and executed on a 36MW wind farm, after which several more wind farms have and will benefit from this upgrade

36MW wind farm+
Platform TL
0,5 years

5. Blade Repair Specifications (BRS)

Process: From available old repair procedures, test reports, material database and windfarm lessons learned, worked on adding all latest blade engineering knowledge into a newer holistic BRS format.

Value created: The BRS (and derived BRI) was immediately adopted by all blade factories and continuously updated since under the same format

5 blade models
8 factories
40GW+ service fleet
Blade TL
1,5 years

6. Smart Materials for Windfarm Blade Repairs

Process: Sold the project internally based on Business Case. Lead a project team of material experts and service repair specialists towards the introduction of new materials more suited to wind farm repair conditions than factory materials. Used 6-sigma methodologies to down select market available materials in each category - Tested their processability, environmental robustness and mechanical properties to fulfill the internal material qualification process and beyond.

Value created: 10+ new materials introduced and documented, most of which are still in use today, significantly reducing OPEX

40GW+ service fleet
PM & TL
1 year

7. Blade Root Bushings resolution

Process: Triggered by the failure of several supplied blades and their RCAs, lead the engineering work with the blade supplier on a complex in-field repair method (initially deemed impossible) and in parallel support the engineering of a high-capacity blade root design for in-house production blades. Lead the development of custom sub-article testing and the process qualification of best-in-class root bushing design and repair

Value created: 4 patents filed, significant OPEX reduction and breakthrough design improvements

**1000+ outsourced
blade & in-house
development**
TL
1,5 years

8. Web bond line resolution (supplied blades)

Process: Triggered by the failure of several supplied blades and their RCAs, worked with the blade supplier and a certification body on a complex in-field repair method (initially deemed impossible); introduced ultrasonic NDT as a precursor in the industry; certified the repair method and technically spearheaded the fleet wide repair campaign

Value created: Successful global implementation of major repair campaign at lowest cost, significantly optimizing OPEX and zero failure recurrence

**3000+ blades /
2 blade models**
TL
2 years + 1 year

9. Web bond line resolution (in-house blades)

Process: Triggered by an in-house blade failure and its RCA, lead an internal cross-functional team to work with the customer engineering team on a methodical data-driven risk categorization and viable remedy actions (segregation by risk-levels initially deemed impossible). Regular technical alignments and collaborative dialogue with customer engineering and warranty counterparts.

Value created: Reached a settlement agreement, driving major OPEX savings on both sides and without compromising on wind farm safety

**3000+ blades /
3 blade models**
Director
1 year

10. Blade Health Monitoring Systems (HMS) & Non-Destructive Testing (NDT)

Process: Triggered by the necessity to de-risk a large fleet of blades, lead a project focused on identifying latest technological advancements in the field of HMS, testing several products on blades specific defect types (in laboratory, full scale blade test and in operating wind turbine). Working with several partners and identifying strengths and weaknesses of each product & technologies on the market

Value created: Validation and implementation of newest technologies on targeted products carrying known critical risks – Significant OPEX reduction

10GW+ fleet
PM & TL
2 years



11. Offshore Blade Bolts

Process: Triggered by multiple offshore bolt premature failure, built a team of mechanical experts, blade designers, service technicians and external providers towards the assertion of a complex multi-factorial RCA. Developed, tested and verified remedies in windfarm

Value created: Significant reduction in failure rate and related OPEX

5GW+ fleet
TL
2 years

12. Blade Transport damages

Process: Triggered by several blade damages, lead a project team of mechanical experts, blade designers, logistics representatives and external providers towards the assertion of a complex multi-factorial RCA. Developed, tested and verified relevant remedies both in transportation procedures and in blade design guidelines

Value created: Significant reduction in failure rate and related OPEX

5GW+ fleet
Director
1,5 years

13. Windfarm-wide complex low performance resolution

Process: Built & lead a cross-functional internal team of experts; deep dived into windfarm data & lead brainstorming sessions to define, understand and resolve the cause of low AEP (8D method)

Value created: Identified very unexpected and subtle root cause & solution leading to 3% AEP recovery

100MW windfarm
Platform TL
1 year



1. Blade R&D projects / Engineering support (from quick challenge resolution to full technology projects)

A selection of Engineering projects and continuous support:

- Accelerated epoxy resin & adhesive cure for 24h project
- Carbon planks cost-out technology project
- Lightning Protection System reliability enhancement (tip region)
- Structural assessment & sign-off of multiple blade loads increase
- Structural assessment & sign-off of multiple factory NCRs
- Structural assessment & sign-off of multiple factory ECRs
- Multiple new materials testing for blade production & wind farm
- Structural authority over multiple full scale blade testing for new technologies and load increases
- Multiple full scale blade testing failure investigation & resolution
- Innovation in sub-article testing methodologies for the validation of root connection and tip extension

Blade TL
each \leq 1 year

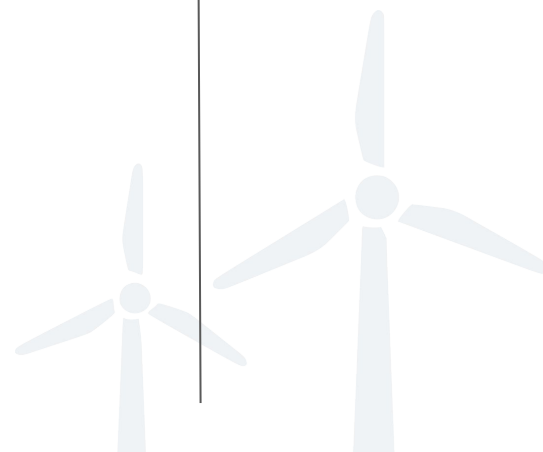
2. Wind Farm Blade Failure Engineering & Risk Resolution (from quick response to a single event to full 8D programs) (from cosmetic challenges to catastrophic events)

A selection of significant blade issues managed and resolved:

- Blade root wrinkles
- Blade root wrinkles
- Blade spar cap wrinkles
- Blade core steps
- Blade trailing edge crack - multiple types
- Transport & Handling damages surfacing in operation
- Blade repair failure recurrence
- LEP accelerated degradation
- LPS metal tip crack
- Blade abnormal vibrations
- Balancing block debonding
- Balancing chamber leak
- Uncured epoxy resin
- Tower strikes
- Blade root booshing detachment
- Shear webs disbonding - multiple modes
- Shear web misplacement
- Aero Add-ons & root collar detachment
- Multiple shell transverse cracks
- Root bulkhead composite cracks & bolt failures

... and several more failure modes and causes

Blade TL
each \leq 0.5 year



Organization & Strategic Leadership

1. Wind farm Blades resolution process enhancement

Process: Centralized the technical resolution of global wind farm blade issues – Introduced & lead stronger 8D methodology, processes and reporting structures

Value created: Major improvements in global process consistency, 8D process quality, accuracy & efficiency

Global OEM processes
1 year

2. Blades Lifecycle management (LMT) build-up

Process: Built & lead a new department in the company, accountable for the management of all aspects of blades quality issues post-manufacturing (Warranty + Service). Recruited and managed a team of 20+ engineers, PM's & quality techs - Introduced new LMT vision, structure, tools & KPI's

Value created: Significantly enhanced and streamlined management of global blade Reliability resolution, leading to major reduction in Cost of poor quality (COPQ) & operating costs (OPEX) + improved blade design lessons learnt feedback loop

Global OEM organization & processes
3 years

3. Blades Customer Warranty management build-up

Process: Built & lead a new department in the company, accountable for the management of all aspects of customer warranty claims. Recruited and managed a team of 15 engineers & PM's – Centralized the claim management and response processes and introduced major company changes in warranty vision, structure & tools.

Value created: Significantly enhanced and streamlined management of global blade warranty resolution, leading to major reduction in liability costs while significantly improving customer satisfaction

Global Tier-1 Blade organization & processes
1 years



1. Offshore Blade Production Quality surveillance

Process: Positioned at the blade factory, followed manufacturing process and quality control, spot checked and deep dived into specific points of concern based on own experience and critical judgment; review non-conformity reports and repair methods

Result: Delivered engineering risk assessment beyond original quality surveillance scope

100+m Offshore blade
4 months

2. Technical support to Onshore warranty issue

Process: Advised the wind farm owner with a warranty claim on multiple blade cracks. Acted as independent participant to level the technical dialogue with OEM.

Result: Achieved an optimal compromise of 3-year warranty extension and an enhanced O&M plan to reduce risk & control OPEX

45MW wind farm
2 weeks (≤ 8 hrs.)