



Global Distributor Opportunities

Grow your business with Camlin



www.camlingroup.com || mail@camlingroup.com





»» Camlin Energy is seeking new distributor partners to join us in driving further growth and global expansion...

This booklet summarises our company, our portfolio of products and services, and the level of support and assistance we can offer new distributors wishing to join us as we expand and develop new global markets for our products.

The content also explains what we expect in return from a successful distributor, and how to move forward in the journey of becoming our next new partner!

An exciting opportunity to join forces with an innovative company committed to growth, success & sustainability.



Grow your business with Camlin

With a history stretching back over 30 years, the foundations of the Camlin business are built on a core belief that innovation is key to driving improvements in the energy industry. We have been at the forefront of key innovations that have changed the face of the industry including digital fault recorders; digital circuit breaker analysers; advanced protection systems and network automation technologies. Camlin continues this track record of innovation, developing innovative and intelligent monitoring products and services that help make electricity networks safer, more efficient, resilient, and sustainable.

Key products and services:



Holistic Asset Monitoring

Transformer, circuit breakers and rotating machines



Digital Solutions

Advanced analytics providing prescriptive actions on asset health



Asset Condition Assessment

Building a full picture of asset health



Expert Services

Focused seminars and training aimed at driving knowledge sharing

We believe in working together with our partners existing platforms and technology, bringing these together with new developments to provide expert analysis into asset condition and translating diagnostic data into prescriptive actions. With headquarters in the UK, Europe, US and China and facilities in 21 cities across 17 countries, we are set up to deliver globally.

Your success is our success. Together we will ensure you have...

- Access to an unrivalled product portfolio...
- Comprehensive ongoing support to facilitate maximum growth potential...



The team at Camlin have an unmatched track record in delivering technology that has changed the industry and we are fully committed to continuing this journey, delivering solutions which meet key challenges and deliver value.

As a Camlin distributor you will be promoting and selling our leading edge products including:

TOTUS

Transformer Monitor

TOTUS monitors all key components on the transformer, giving a full picture of transformer health and is the ONLY unit to integrate DGA, Partial Discharge (PD), Bushing Monitoring (BM), Through Fault Currents (TFC) and Transformer Analytics into a single system.

TOTUS provides a comprehensive, granular picture of power transformer health that allows asset managers to optimise maintenance strategies resulting in significantly reduced risk of sudden transformer failure and associated costs, enhanced predictive maintenance to extend life of the transformer and uninterrupted power supply, reducing unplanned outages.



TOTUS can be equipped with:



Dissolved Gas Analysis (DGA)



Partial Discharge (PD)



Bushing Monitoring (PD)



Through Fault Current (TFC)

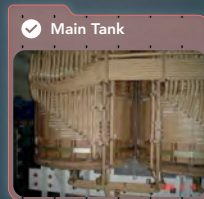
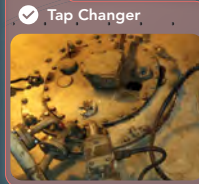
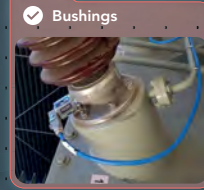
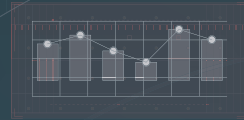
Giving you a comprehensive picture of transformer health in a single system.

TOTUS MONITORING CAPABILITIES

**BUSHING
MONITORING**
+17% Failure Rate

TAP CHANGER
+26% Failure Rate

**TRANSFORMER
MAIN TANK**
+40% Failure Rate



| | |
|--------------------|---------------------------------------------------------------------|
| Partial Discharges | Dedicated trend for Partial Discharges in bushings Arcing events |
| Leakage Current | Currents amplitude and phase Current polar plot |
| C1/PF | Tandelta/PF variations C1 and C2 variations |
| Others | Temperature Load Humidity |

| | |
|--------------|-----------------------------------------------------------------------|
| Temperatures | Main Tank Temperature OLTC Temperature Differential Temperature |
| Motor | Current Voltage Torque |
| DGA | 7 Gas Moisture in Oil |
| Others | Tap Position Oil Level Load Status / Alarms |

| | | |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| DGA | 9 Gas 5 Gas Moisture in Oil | |
| Partial Discharges | Active PD's Arcing events | |
| Through Faults | Event Count Cumulative Effect | |
| Cooling Sytem | Pump / Fan Absorption Cooling Status Temperatures | |
| Models | Hot Spots Aging / Remaining Life Moisture in Paper | Bubbling Dynamic Loading Oil Breakdown Voltage |
| Others | Geomagnetic Induced Currents (GIC) Direct winding temperatures with fiber optics Analog and Digital Inputs Integration of any third party monitor/system | |

80%+ of transformer failures are due to failures in the Bushings, Windings and OLTC (CIGRE Working Group A2.37)

TOTUS Bushings Monitor



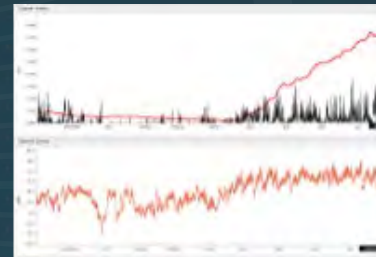
Proven in the field to detect and identify:

- Short circuits
- Contamination
- Ageing
- C2 issues
- Arcing
- Cavities in Resin



The Challenge for Asset Managers

According to statistics published by IEEE, IEC and CIGRE, bushings contribute to roughly 15-30% of transformer failures globally. In over 40% of cases the failure resulted in catastrophic consequences such as fire, tank rupture and explosions.



Relative change of Tandelta and Partial Discharges show insulation losses due to contamination



Relative changes in Capacitance plus Partial Discharges show short circuits

The Solution

Minimise the risk with TOTUS Bushing Monitoring. Online monitoring of bushings, through monitoring of internal insulation (capacitance / Tan Delta or Power Factor) and the internal electrical activity (Partial discharges) enables asset managers to detect a fault at its very preliminary stage, allowing action to be taken before reaching a critical and irreversible stage.

TOTUS allows for correlation and causation to determine failure modes, driving prescriptive actions.

The TOTUS Bushing Monitor has saved over \$10M in damages to bushings for our customers including RIP bushings, thanks to monitoring a combination of leakage current & partial discharges.

We monitor the following;

Partial Discharges

Dedicated trend for Partial Discharges in bushings
Arcing events

Leakage Current

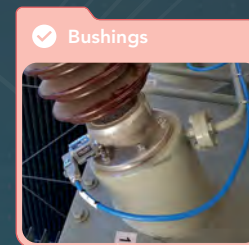
Currents amplitude and phase
Current polar plot

C1/PF

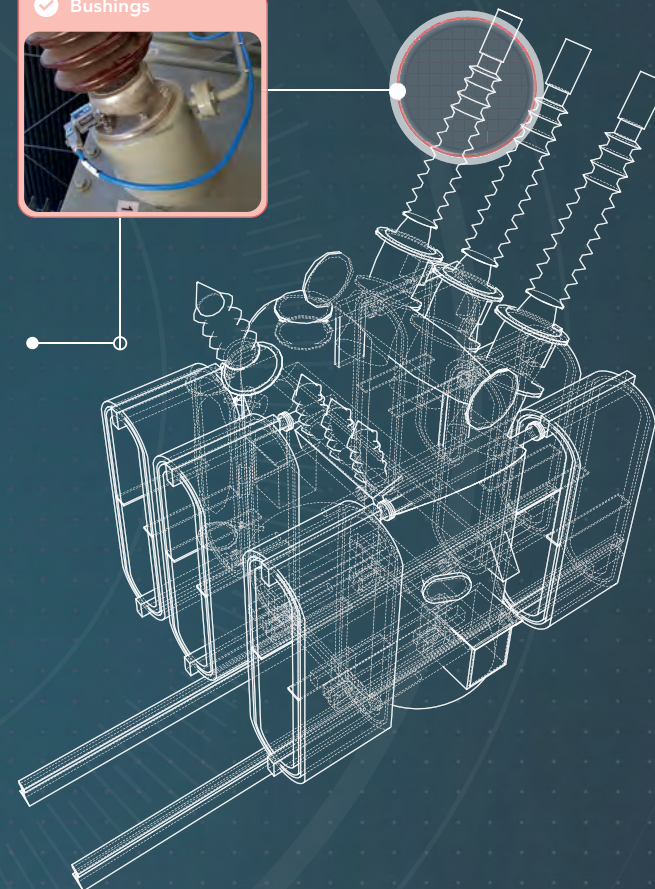
Tandelta/PF variations
C1 and C2 variations

Others

Temperature
Load
Humidity



✓ Bushings



Profile P3

Circuit Breaker Analyser



PROFILE P3 provides a unique insight into the true condition of circuit breakers at all voltages. Capturing the vital 'first trip' shows how the breaker would perform in a real-life fault situation.

Problem

A slow tripping circuit breaker can cause major disruptions on power networks resulting in:

- Widespread loss of supply
- Damage to plant
- Potential safety issues
- CI / CML financial penalties

Conventional testing requires a circuit breaker to be isolated. However this first trip operation can often temporarily clear any slow tripping problem. Therefore capturing the 'first trip' operation is essential to effective circuit breaker condition monitoring.

Solution

The **PROFILE P3** offers a cost effective solution by enabling:

- Fast and simple online test
- Capture vital first trip operation
- Combined relay and circuit breaker test
- Onsite analysis of breaker defects
- Efficiently target critical resources

PROFILE P3 is a powerful diagnostic tool for analysing:

- Main contact operating time
- Auxiliary contact operating time
- 'Health' of Close & Trip coils
- Condition of DC battery circuit
- Auxiliary contact condition
- The Total Trip Time

Key Features

Powerful Onsite Analysis

The **PROFILE P3** can display and overlay up to four records in graphical form. This enables quick onsite analysis of potential defects by comparing a first trip or close profile to subsequent circuit breaker operations.

Combined Protection Relay and Circuit Breaker Online Test

An enhanced version of the software enables both the protection relay and circuit breaker trip times to be captured.

Multi-shot Mode

With this function the **PROFILE P3** is able to re-arm and capture multiple circuit breaker operations. This can be used for monitoring a circuit breaker during faults or SCADA initiated operations. Also it can be used to capture a sequence of trip/close operations during one test setup.

Automated Comparison Function

This provides a clear pass/fail (green/red) indication by determining if the key parameters – Buffer, Acon, Mcon are outside user set tolerances between the first, second and third trip operations.



TOTUSPRO

Actionable information
at your fingertips

Our TOTUS total transformer monitoring solution consolidates and connects data from our monitoring equipment, together with other sources of offline data, to provide clear insights on asset health and health across the fleet of transformers.

With the TOTUSPRO software suite, actionable information is clearly and intuitively presented, and asset managers can make immediate decisions across their fleet and at the individual transformer level.

TOTUSPRO ACCESS

| Serial Number | Asset ID | Status | Condition Group | Alarm |
|---------------|----------|--------|-----------------|-------|
| TOT001-000012 | ATR275 | Online | 1 | |
| HT001-000012 | ATR275 | Online | 1 | |
| TOT001-000016 | TR1 | Online | 1 | |
| TOT015-000013 | U8 | Online | 1 | |
| HT001-000016 | PST2 | Online | 1 | |
| HT001-000017 | PST3 | Online | 1 | |

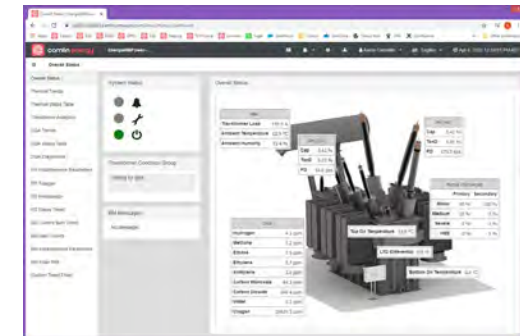
The TOTUSPRO ACCESS module immediately highlights which transformers are the greatest risk and allows asset managers to manage and make decisions across the entire transformer fleet.

TOTUSPRO DESKTOP

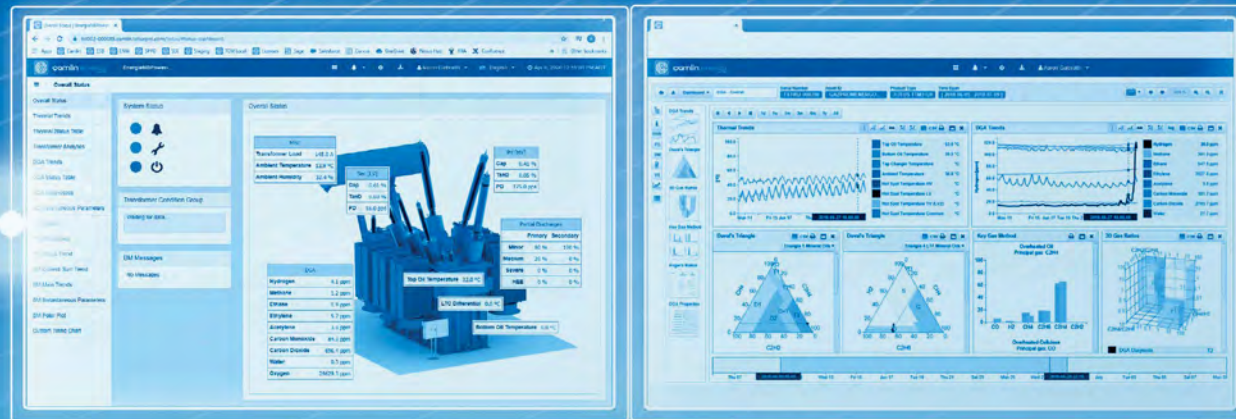


TOTUSPRO DESKTOP module provides subject matter experts with a deeper analysis on failure modes with the ability to easily import offline data archives.

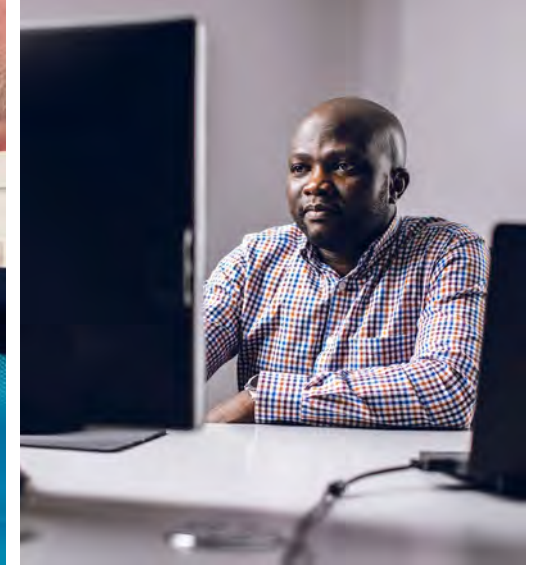
TOTUSPRO WEB



Each TOTUS device comes embedded with TOTUSPRO Web, and online server which incorporates advanced diagnostics, providing key insights to asset condition in a graphical and easy to read display of information.



Our **expert support services** give access to decades of collective transformer subject matter expertise in Camlin to support decision making.



Independent expertise

Asset managers can often be reluctant to place reliance on the OEM providers of the transformers as they are often incentivised to sell additional transformer servicing works.

Our transformer experts are on hand to support customers throughout their Transformer Asset Management journey. Our in-depth reporting and expert advice provides a wholly independent assessment of transformer health.

Expert consultancy

Consultancy Services include:

- Pre-procurement design review for a new transformer to ensure requirements and planned performance is clearly understood by both parties (customer & transformer OEM)
- Neutral technical support for Factory Acceptance Tests of the new transformer at the transformer OEM site
- On-site Asset Inspection (for example for investigation of issues, or for potential improvements to operation)
- Post-mortem examination following a serious or catastrophic transformer failure
- Other consultancy as required

Condition Assessments

The automated monitoring service available through TOTUS software can be further extended to the most holistic transformer condition assessment that considers the online data as well as any relevant historical and offline data of the transformer's entire lifecycle.

Initial Diagnostic Assessments benchmark the health of the transformer when online monitoring is first installed. Periodic Diagnosis Reports trend the condition of the asset and create a gapless asset history that enables the earliest detection of any defects. Event Diagnostics is a rapid in-depth of assessment following a significant alarm or detection of a defect and determines whether continued operation is safe as well as recommending the measures to take.

Knowledge sharing

Knowledge of the monitoring device ensures best usage of the system and its provided information, enabling maximum benefit to be derived from your investment. Through product trainings we cover not only normal operation, but also situations where alarms are reported and need investigated.

Performing the correct action based on the monitored data is very often the most difficult step, even for experienced asset managers. Whilst our experts are on hand to support in decision making, through our academic seminar programme you can access exclusive content to advance knowledge and expertise which enables better decision making and leads to more constructive discussions with transformer OEMs.

Connected Insights

A comprehensive asset management approach empowering asset managers to maximise the value of assets across their life cycle.

At Camlin Energy we understand the core challenges and decisions faced by asset managers, including:

- capital investment;
- operation, maintenance and replacement;
- shutdown and outage strategies;
- life cycle value realization;
- resourcing strategy.

Insights into asset condition play a key role in determining the ideal maintenance strategy for each asset, ensuring the highest investment return over its lifetime.

An asset condition assessment helps understand the resources which need to be invested, considering other criteria such as depreciation schedules and renewal or replacement programs: for example, there may be little value in investing in maintenance if an asset is already flagged for renewal or replacement.

This means gathering large amounts of raw data from multiple sources and extracting information. But it's rarely as straightforward as this. Knowledge must be applied to the information to uncover causal relationships between different results and determine the most probable failure mode and best technical action.

Connected Insights translates data into valuable information and prescriptive actions by applying the power of Camlin and our customers' own in-house knowledge and expertise.

Connected Insights is an expert digital service aimed at translating electrical utilities' diagnostic data, from both offline and online results, into prescriptive actions.



Connected

Connected Insights securely connects to existing data sources without adding additional IT burden and without the need to install complex on-premise software, by harnessing and enhancing the use of enterprise historians such as Osisoft PI, eDNA, OSI, Chronus etc. We also connect to existing CMMS platform such as IBM Maximo, Ellipse or SAP.



Insights

Data points are converted into actionable information, providing visibility of asset condition and suggesting the best technical action to minimize the risk of failure.

Connected Insights - Four design Principles



Customer Centric,
Vendor Agnostic



Cyber Secure:
Aligned to
ISO/IEC 27001



Rapid to Adopt,
Faster Benefits



Extensible to
other Asset
Classes

How does Connected Insights address current asset management challenges?



Subject Matter Expert



Asset Manager



IT & OT Manager

| Challenges | <ul style="list-style-type: none"> Limited Time to spend on deep diagnosis Difficulties gathering all the required data in a short time Tied to multiple proprietary SW from different vendors | <ul style="list-style-type: none"> Poor Fleet View Difficulties in having rapid and comprehensive information on fleet condition to manage risk Challenges in planning CAPEX vs OPEX | <ul style="list-style-type: none"> Solution Integration and Adoption Maximizing the massive investments in EAM, CCMS, APM, ERP Implementing corporate solutions in a reasonable time Ensuring security standards are met |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Connected Insights value | <ul style="list-style-type: none"> It looks at all data, both offline and online It is vendor agnostic It looks at all electrical, chemical and mechanical parameters when elaborating a diagnosis It applies deep expertise from both CAMLIN and from customer SME It is a multi-asset platform that manages transformers, breakers, rotating machines etc | <ul style="list-style-type: none"> It uses leading Business Intelligence dashboard capabilities and CAMLIN expert dashboards to provide a simple Fleet overview, filtering data by location, asset, OEM, component and condition It prescribes the best technical action and recommends the tests to be carried out It helps manage the risk of catastrophic failure and reduces unscheduled outages It enables strategic planning for maintenance, life extension and deferral of expenditures | <ul style="list-style-type: none"> It connects to existing EAM, CMMS and APM platforms reducing IT burden and leveraging platform investment It is secure: It does not access real time data, it does not access sensitive data, it does not perform control It is easy and fast to implement and adopt It enables knowledge sharing and management It allows the Domain Expertise and Knowledge to REMAIN in the company |

» Comprehensive ongoing support from Camlin

As a Camlin distributor you will be supported closely by the following Camlin Team Resources.

Local Camlin Regional Sales Manager & Camlin Partner Development Manager

Your day to day contacts, working with you to offer support in...

- Understanding your markets and improving market penetration
- Building customer relationships
- Promotions, tender processes, and other sales opportunities
- Creating & understanding distributor business planning for your territory





Sales Support Team

A knowledgeable team dedicated to supporting our distributors and regional sales teams with...

- Further assistance in progressing and managing sales opportunities
- Promptly responding to distributor requests and questions and being the connection between our distributors and our internal departments
- Order processing & shipping arrangements



Product management Team

A highly skilled team of product experts available to answer and support with your most complex questions in respect of product features, benefits, and applications. This team are available to all Camlin distributors to assist with matters such as:

- Product presentations
- Delivery of webinars to your markets & customers
- Support on complex technical solutions



Marketing Team

Camlin has a professional and skilled marketing team who will be available to you and happy to assist with services such as:

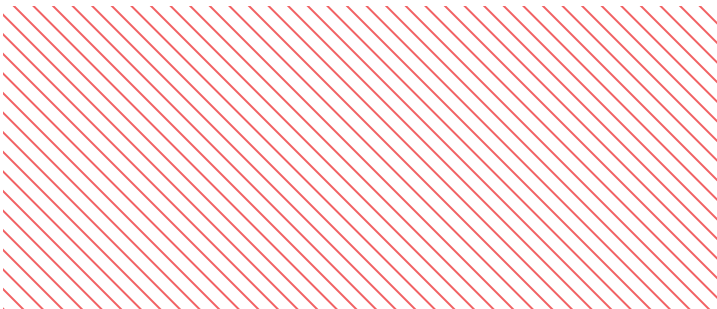
- Branding
- Graphic design support & provision of marketing collateral
- Organization & hosting of webinars
- Developing and improving your online presence
- Social media campaigns



Field Services Team

Camlin has a global field service team who work with our distributors and customers to provide:

- Installation & commissioning services
- Aftersales and warranty support
- Technical training



THE CAMLIN DISTRIBUTOR TOOLKIT



The Camlin Distributor Portal

This invaluable tool is continually being developed and improved and provides our distributor partners with immediate real time access to resources such as:

Marketing Materials

- Logos
- Images
- Videos
- Trade show materials

Sales Literature

- Sales presentation templates
- E-Brochures
- Product specification sheets
- Case studies

• Training resources

- Product videos
- Training videos

• Product Information

- Technical bulletins
- White papers



The Camlin Training Academy

We recognise that the provision of ongoing training is essential for our distributors to be successful in promoting Camlin products and supporting Camlin customers.

The Camlin training academy provides a comprehensive suite of training courses available to all our distributor partners, some of which will be mandatory and others which are optional dependant on the nature of an individual's roles, responsibilities, and existing skill sets.

Training can be arranged and delivered in various ways:

- Trainer-led sessions face to face with delegates (either locally in territory

or at the Camlin factory in Northern Ireland)

- Trainer-led sessions delivered via video conferencing
- Online web based self-learning sessions.

All delegates attending training courses are provided with a comprehensive accompanying learning guide, and where appropriate understanding and comprehension of the content delivered is measured by a short test at the end of each course, and a certificate is issued to each delegate.

Does This Sound Exciting...?

Are You Ready for The Next Step on The Journey to Joint Success...?

We are looking for new potential distributors who:

- Are passionate & 100% committed to growing their business with Camlin
- Are eager to succeed and willing to invest in our joint futures
- Have experience in energy markets with an existing developed network of industry contacts
- Have or are willing to develop teams with the required skills & knowledge to successfully promote, sell and support our products
- Are committed to delivering a 1st class service to our customers

Does this sound like your business....?

If so and you feel that your company meets the above criteria, and you are interested in pursuing this opportunity, please contact mail@camlingroup.com providing all relevant background on your company & experience. Alternatively you can submit your details via the link on the distributor page of our website camlinenergy.com

(all enquiries will be treated in the strictest confidence)

What happens next?

Generally the process of establishing a new distributor is a three-step process:

Information Gathering, Discussions & Due Dilligence

You will be asked to provide some initial information on your business.

If appropriate we will take the opportunity to meet and discuss the opportunity further together



Development of Business Plan & Review of Distributor Agreement

We will work together to explore how you would intend to develop business within your territory

We will discuss and agree the contents and basis of the potential distributor agreement



Launch your Business as a Camlin Partner and Ensure a Successful Onboarding Process

Sign the distributor agreement

Introduce you to the Camlin team

Arrange immediate training needed

Start on our working future journey together!



Whilst every effort has been made to ensure that the information given is accurate, Camlin reserve the right to change any of the details or specifications in this document without prior notice and disclaims liability for any editorial, pictorial or typographical errors.

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