

The Chartered
Institute of Logistics
and Transport

DRIVING KNOWLEDGE, DELIVERING QUALITY

Our Key Knowledge Areas



Contents

| | |
|---|----------------|
| Introducing the Key Knowledge Areas | 3 |
| How the Key Knowledge Areas link to professional development and career progression | 4 |
| The different ways of using the Key Knowledge Areas | 5 |
| – University sector | |
| – Qualification development | |
| – In-company programmes | |
| – Membership elections | |
| – Benchmarking and short courses / Continuing Professional Development | |
| The Key Knowledge Areas for Chartered Membership of CILT | 12 |
| – Overarching Customer and Continuous Improvement Principles | |
| – Core Generic Areas | |
| – Specialist Key Knowledge Areas | |
| Toolkit Resources and Support | See back cover |
| Where to go for help and advice | See back cover |

Introducing the Key Knowledge Areas (KKA)

The Chartered Institute of Logistics and Transport (CILT) is a global membership body with over 34,000 individual members in over 34 countries across the world. Each CILT body shares common standards for CILT membership. This document provides guidance on the Key Knowledge Areas for Chartered Membership (version 2017).

The KKA provide the benchmark for meeting the knowledge requirements for Chartered Membership (CMILT) of the Institute.

The KKA are used to provide the basis for the development of CILT qualifications and the accreditation of university degrees and in-company development programmes. Sometimes referred to as the Body of Knowledge, the KKA describe the concepts which make up the Institute's professional domain and footprint.

In developing and updating the KKA, it is important to ensure that the KKA do not date too quickly. They are written in a manner which can accommodate the rapid speed of change within the world of transport and logistics, and external factors which may impact on the profession.

The KKA must also reflect our global community and our international values.

There are four groups of Core Generic Areas which apply across the profession, whether an individual works in planning, management or any other sector within the transport and logistics industry. All areas are overarched by a customer facing approach.

These Core Generic Areas are complemented by eight Specialist Key Knowledge Areas (Technical Areas) as shown in the diagram below.

Additional guidance on how the Core Generic Areas can be interpreted in the context of the Specialist Areas will be developed and available in autumn 2017.

| Key Knowledge Areas Framework

| Customer Centric and Continuous Improvement Principles | |
|---|--|
| Core Generic Areas | Specialist Key Knowledge Areas |
| A. Integrated strategic planning, management and systems thinking | S1 Supply Chain Management |
| | S2 Operations Management |
| B. Efficiency, quality and risk | S3 Procurement and Supplier Management |
| | S4 Logistics Systems |
| C. Technology, analysis, adoption and monitoring | S5 Transport Infrastructure and Network Planning |
| | S6 Passenger Movement |
| D. Society, sustainability and the global community | S7 Freight Movement |
| | S8 International Trade and Transport |

How the Key Knowledge Areas link to professional development and career progression

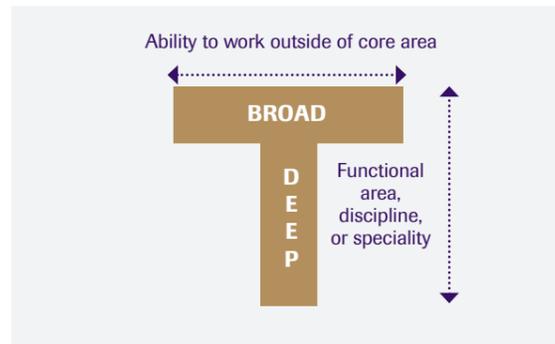
As a global professional body, CILT needs to define what it expects individuals to *know*, particularly those entering the profession as a younger person or those moving across into a transport or logistics role later in their careers.

The KKA define both the *breadth* (Core Generic Areas) and *depth* (Specialist Areas) of knowledge expected as a professional matures, so that they can become rounded professionals. However, knowledge is only one aspect that we need to consider when electing individuals for assessed membership grades, as knowledge must be complemented by *experience* and *competence*.

When electing members to Chartered Membership, we would expect them to demonstrate a thorough knowledge of most, if not all, of the Core Generic Areas. In addition, it would also be mandatory for members to be able to demonstrate a detailed knowledge in at least one of these Key Specialist Areas.

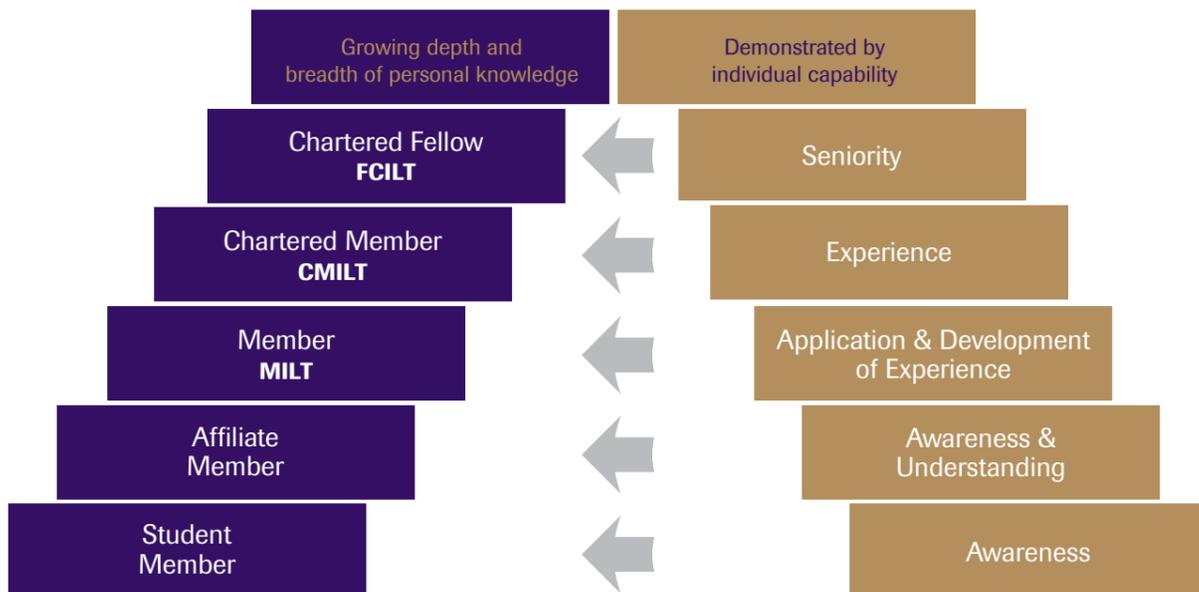
The diagram below illustrates how the Key Knowledge Areas map to the different levels of CILT membership and the growing depth and breadth of knowledge that we would expect to see. For graduates and those learning through vocational qualifications, we would also expect to see a focus on enrichment of knowledge early on in their careers, moving into application later on.

When electing individuals to membership, applicants need to demonstrate that they have relevant experience and are competent to operate at the level for which they are applying. There are separate criteria dealing with experience and how this should be evidenced. Please refer to the International Membership Guidelines for more information.



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Climbing the 'Knowledge Steps'- Applying Key Knowledge Areas to Professional Membership



The different ways of using the Key Knowledge Areas

The KKA are used in several ways as explained in the diagram below.

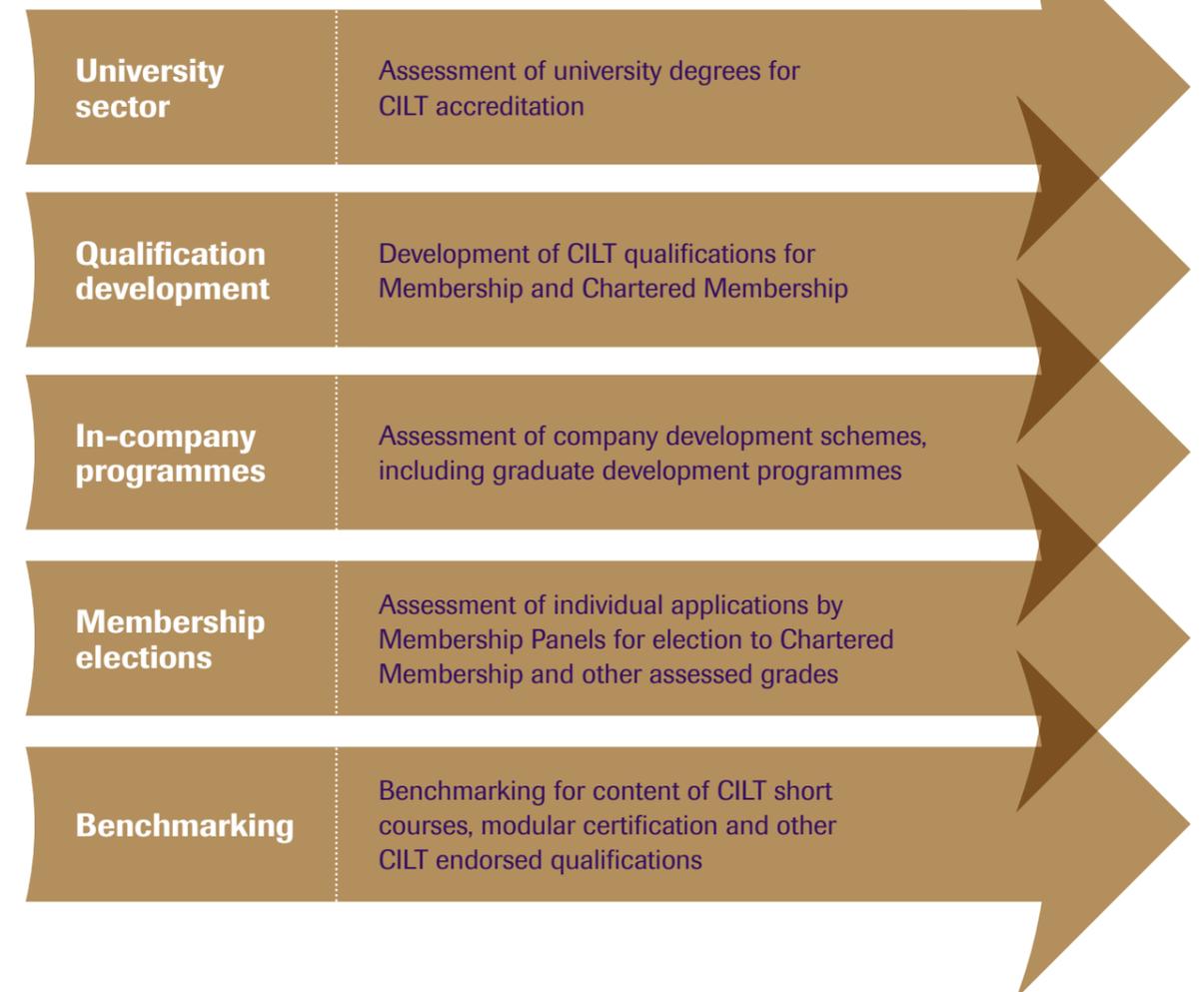
We expect there to be a clear and consistent mapping process evidenced in university accreditation, development of CILT qualifications and in-company programmes. This is to ensure that the relevant Key Knowledge Areas are covered in the development of new qualifications, or the reviewing of existing courses.

It is important to recognise that the Key Knowledge Areas are a global reference tool, and should be referred to when CILT country organisations are seeking governmental or ministerial approval of CILT programmes within their country.

The KKA underpin membership assessments. However as part of that separate process, the individual's relevant experience, competence and knowledge levels are reviewed as a whole.

For the final area of benchmarking the KKA provide a clear blueprint for education providers who wish to develop and deliver courses that adhere to CILT best practice and can qualify for CILT endorsement.

Explaining how the Key Knowledge Areas are used



University Sector – Assessment of university degrees for CILT accreditation

Accredited university degrees offer exemption from the education requirements for Chartered Membership of CILT. The accredited programmes should provide for the development in depth of knowledge and skills in specific areas of logistics and transport or related areas.

Students graduating from CILT accredited degree courses gain one year's credit towards the experience requirement. Accredited sandwich degrees with an industrial placement year give two years' credit, as does the combination of an accredited first and higher degree. To qualify for exemption first degrees must be passed with a classification of at least second class honours.

It is normally expected that an undergraduate degree course gaining full accreditation will have at least **75%** coverage of the Institute's Key Knowledge Areas for membership. Postgraduate courses are usually narrower and more specific in scope, so the coverage of the KKA is likely to be more focused on a particular area therefore the **75%** coverage is not applicable.

CILT acknowledges that Bachelors, Postgraduate and Masters Degrees serve different purposes. There are also different definitions of Undergraduate and Postgraduate education across the world. For the purposes of the KKA we are treating UK Level 6 as **degree level** and UK Level 7 as **Postgraduate / Masters level**.

This is our benchmark but for any queries on this or other grades (eg MILT) please contact the International Professional Development team at pd@ciltinternational.org

If you are based in the UK please contact pd@ciltuk.org.uk

The programmes can also be delivered over different periods of time and via a range of mechanisms. This accreditation process recognises that:

- A Bachelors level degree delivers a systematic understanding of key aspects of the subject, including the acquisition of coherent and detailed knowledge, informed by current and relevant published academic research in the subject
- Bachelors graduates will be expected to have an ability to deploy accurately the established techniques of analysis and enquiry within the subject
- A Masters level degree delivers in-depth knowledge and understanding of the discipline informed by the highest standards of scholarship and academic research
- Masters graduates will demonstrate a high level of understanding of current issues in the subject and be able to critically evaluate their impact
- Masters graduates will be expected to demonstrate a range of techniques and research methods

CILT supports the development of degree programmes with an element of work placement or work experience. As applications for Chartered Membership are assessed on a combination of knowledge and relevant experience, a graduate from these degrees would be eligible to use this work experience as part of their membership application process.

The Institute would also like to encourage the development of forward looking and innovative courses particularly at the Masters level. To this end courses that expand and enrich the study of logistics and transport at higher degree level may be considered on their own merits at the discretion of CILT International, CILT (UK) or other relevant Country Accreditation Committees.

CILT does not expect that any one course or programme will demonstrate high levels of content in more than one Specialist Key Knowledge Area, though some may. Some courses may further specialise, focusing content by mode (e.g. Maritime), sector (e.g. Retail), process (e.g. Simulation) or customer (e.g. Humanitarian) aspects.



Qualification Development – Development of CILT qualifications for Membership and Chartered Membership

The KKA provide a benchmark for the development of CILT qualifications. The CILT Diploma and CILT Advanced Diploma are the two qualifications which meet the educational requirements for Chartered Membership of the Institute, as long as the required experience is also gained in the working environment.

In the UK, these two qualifications are recognised within the UK government qualifications framework at Levels 5 and 6. Internationally these levels are matched by CILT International Diploma and Advanced Diploma qualifications.

The UK qualifications are used as a benchmark for the development and certification of other CILT qualifications, including the International Syllabus. We recognise that different countries may need to adopt an alternative approach to meet their own governmental and ministerial approval requirements, as well as those of local industry.

Submission of the KKA document alongside the course syllabus, learning outcomes, standards and materials will contextualise the product, and ensure that qualification approval agencies understand the breadth and depth of CILT's approach. If individual qualification bodies require more content than the minimum criteria recommended by the KKA guidance, then this should be accommodated with reference to the International Professional Development Coordinator and the country's own CILT Education Team.

The KKA also provide a basis for other CILT qualifications operating at below degree level, but these qualifications are not expected to require the same level and depth of knowledge. They will be expected to address the Core Generic Areas and overarching principles, recognising the importance of the customer and continuous improvement.

In-company programmes – Accreditation of in-company programmes including Graduate Development Schemes

Many organisations operating in the areas of supply chain management, transport planning, operations management, and freight and passenger transport run graduate development schemes to attract and retain new recruits. These schemes enable organisations to develop graduates from a variety of disciplines to meet company-set competences and to provide coverage of the CILT Key Knowledge Areas.

The Accredited Graduate Development Scheme provides a direct route to Chartered Membership of CILT. Participants in accredited in-company graduate development schemes can typically expect to gain access to Chartered Membership at least one year sooner than would otherwise be the case, and in terms of the necessary qualifying period of experience are roughly on a par with candidates with accredited degrees.

Accreditation of a company's graduate development scheme by CILT is based on the candidates meeting the KKA as part of a company specific two or three year in-company programme. This accreditation provides an independent quality mark and assurance of high standards. Having a company programme accredited by a professional body can assist in the recruitment and retention of high quality graduates.

For candidates, accreditation will provide a direct route to Chartered status in CILT, which in turn will provide professional recognition for those developing their careers in the logistics and transport sector.



Membership Elections – Assessment of individual applications by the Membership Panel for election to Chartered Membership and other assessed grades of membership

The KKA provide the knowledge requirements for eligibility for election to Chartered Member grade. There is complementary guidance on membership elections already in place, highlighting the levels of experience and knowledge needed to achieve different grades of membership. Please refer to the CILT Membership Guidelines or contact CILT International for a copy.

Individuals entering the profession through a non-traditional route can use the KKA as a tool to help identify their knowledge gaps and enhance their membership application.

The CILT Continuing Professional Development Toolkit provides gap analysis tools to help with this process.

Benchmarking – Benchmarking for the content of CILT short courses, modular certification and accreditation of other relevant qualifications

Training providers should be aware that there are separate processes for accrediting and endorsing short courses, both at an international and country level. In addition, providers should clearly differentiate between attendance-based CPD and assessed training.

The Institute has a keen interest in the development of high quality qualifications for the logistics, transport and operations management sectors and therefore are prepared to support and endorse qualifications developed by other organisations.

When individual training providers submit proposals for accreditation we expect them to identify relevant KKA that the course will cover, and specify the level and depth of knowledge addressed by the course content.

The training provider should set out how each qualification will:

- benefit the profession
- bring benefits to users
- provide opportunities for progression for the individual

In addition, the subject matter of the course as a whole must specify the knowledge, skills and understanding required, and outline what successful students will have *learned* by the end of the programme.



Key Knowledge Areas for Chartered Membership of CILT

Overarching Customer and Continuous Improvement Principles

Regardless of the sector in which our members work, the customer is central. Fundamentally the profession is dealing with derived demand, where customer needs drive our decisions and actions. Identifying the customer and their stake, whether in the supply chain, freight operations, passenger transport or trade scenarios, is critical to the KKA.

Complementing this, the profession has to respond to a continual need for service improvement, again driven by the customer. Adding value to processes, products and services is a key component of both public and private sector transport and logistics activities, and needs to be clearly explained to learners at the outset of their studies.

The whole set of Key Knowledge Areas also need to be seen in the context of individual decision making, and how it can impact on the wider public, including environmental, socio-economic and commercial sustainability. Consideration of sustainability matters therefore underpins the KKA.

It is for undergraduate and degree-level providers to determine whether they wish to cover these key principles as stand-alone modules early on in the course, or to embed them within the Core Generic Areas covered next. If the latter option is selected, the coverage of the overarching principles must be explicit in the course descriptions and content.

Core Generic Areas

A. Integrated strategic planning, management, and systems thinking

- People development, leadership and strategic change management
- Core economic and market principles
- Costing, finance and resourcing
- Strategic and operational planning processes
- Managing projects and managing operations

B. Efficiency, quality and risk

- Process and production management
- Operational effectiveness and efficiency
- Quality management strategies
- Risk identification, reduction, and safety management
- Compliance management and value-adding processes

C. Technology, analysis, adoption and monitoring

- Selection of qualitative and quantitative methods and techniques
- Data collection and monitoring, analysis and forecasting
- Setting and achieving performance measurement (e.g. metrics, KPIs and benchmarking)
- Application of modelling and simulation
- Innovative applications of technology

D. Society, sustainability, and the global community

- Society, ethics and Corporate Social Responsibility (CSR)
- Social, commercial, economic and environmental resilience
- National and international policy frameworks and legislation
- Interdependence and integration
- Global context and external influences
- Sustainable development

Remember that we would expect at least 75% of these core areas to be covered in a degree-level programme designed to lead to Chartered Membership

Specialist Key Knowledge Areas

Supply Chain Management

1. Supply chain objectives, benchmarking and strategies
2. Principles of supply chain design and operations including virtual networks
3. Supply chain dynamics, analysis, planning and optimisation
4. Sourcing, operations planning and procurement
5. Managing product / service / packages to end customers
6. Inventory management, warehousing, storage and intelligent systems
7. Product design, production planning, material, information and financial flow
8. Facilities and waste management
9. Lean, Agile (including Six Sigma) and competitiveness of supply chains
10. Multi-channel supply chains including e-commerce

Operations Management

1. Supply chain planning and execution
2. Principles of planning and control (e.g. MRP, ERP, S&OP)
3. Manufacturing and re-manufacturing
4. Process mapping and process logic
5. Demand driven planning
6. Capacity planning, scheduling, and theory of constraints
7. Inventory planning and systems
8. Managing systems, monitoring and measurement
9. Continuous improvement, optimisation and Lean principles
10. Service operations and servitisation

Procurement and Supplier Management

1. Market analysis and forecasting
2. Project management and supply chain optimisation
3. Global sourcing and international trade context
4. Tender specification, supplier evaluation and selection
5. Contract formation and negotiation
6. Legal aspects of procurement and contract law
7. Relationship management and collaborative working
8. Performance management and benchmarking systems
9. Category management principles
10. Achieving added value in the procurement process.

Logistics Systems

1. Customer service and support systems
2. Distribution and transport systems and operations
3. Forecasting, planning and scheduling techniques
4. Logistics and transport modelling
5. Continuous process improvement and supply chain optimisation
6. Inventory management and warehousing systems
7. Managing and maintaining supply chain visibility
8. Meeting demand via ERP systems and e-commerce
9. Resource requirement planning
10. Control of information and material flow on-time and in-full

Transport Infrastructure & Network Planning

1. Policy planning for transport, long and short term
2. Transport nodes, connecting links and network structures
3. Interrelationship between transport and spatial planning
4. Economic appraisal, social and environmental analysis
5. Demand and capacity management
6. Travel Planning: distance, demand, duration, destination, traffic modelling and management
7. Transport infrastructure and network resilience
8. Stakeholder engagement and public consultation
9. Transport information systems and intelligent mobility management
10. Infrastructure and planning sector, and market intelligence

Passenger Movement

1. Passenger transport supply and demand principles
2. Local, national, international passenger transport policies
3. Passenger transport planning and network scope
4. Modes, modal choice and transport integration
5. Services, types of operation and interoperability
6. Passenger transport costing / pricing, obligations and subsidies
7. Passenger transport ownership and control
8. Access and inclusion through transport
9. Sustainable transport and behavioural change
10. Health and safety, security, and risk assessment

Freight Movement

1. Services, types of operation and interoperability
2. Intermodal integration and operations
3. Transport of dangerous, oversize and hazardous freight
4. Freight transport, fleet operations and forward planning
5. Scope, capability and efficiency of urban freight transport operations
6. Freight forwarding and management of partners and subcontractors
7. Local, national, and international distribution networks and regulations
8. Modes, modal choice, and multimodal freight transport
9. Transport scheduling, routing, back-loading and optimisation models
10. Reverse logistics

International Trade and Transport

1. International modal choice, inter-modality and security
2. Incoterms and contractual obligations
3. Customs tariffs, processes, procedures and insurance
4. Import, export, bonding and carnet procedures
5. Freight forwarding, contracts of carriage, documentation and certification
6. Specialist requirements for the carriage of different types of cargo
7. Insourcing, outsourcing and offshoring
8. International trade facilitation, treaties, finance and settlement
9. Trade compliance, licensing and quotas
10. Facilities (port, airport) operations

Toolkit Resources

To support the KKA, additional resources will be produced which individuals can access from CILT International. Further details are available on the CILT International website at ciltinternational.org

These will be released and updated on a regular basis and will cover:

- Examples of Core Generic Areas and how they apply to different discipline areas
- KKA Mapping and Checklist Tool
- How the KKA relate to Membership (MILT) grade
- Frequently asked questions (and answers) as they evolve

Where to go for help and advice

For further guidance and advice on how to use the KKA documentation please contact:

For UK and Europe

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E dorothea.carvalho@ciltuk.org.uk

For all other countries

Jon Harris
International Professional Development
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About the Chartered Institute of Logistics and Transport (CILT)

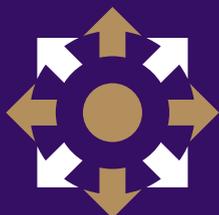
We are the leading international professional body for everyone who works within supply chain, logistics and transport.

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