# Example supply chain mapping

Figure 1 and 2 show examples of two differing supply chain maps. Figure 1 is a more complex supply chain for a business who is medium in size and is experiencing growth. Figure 2 is a micro business.

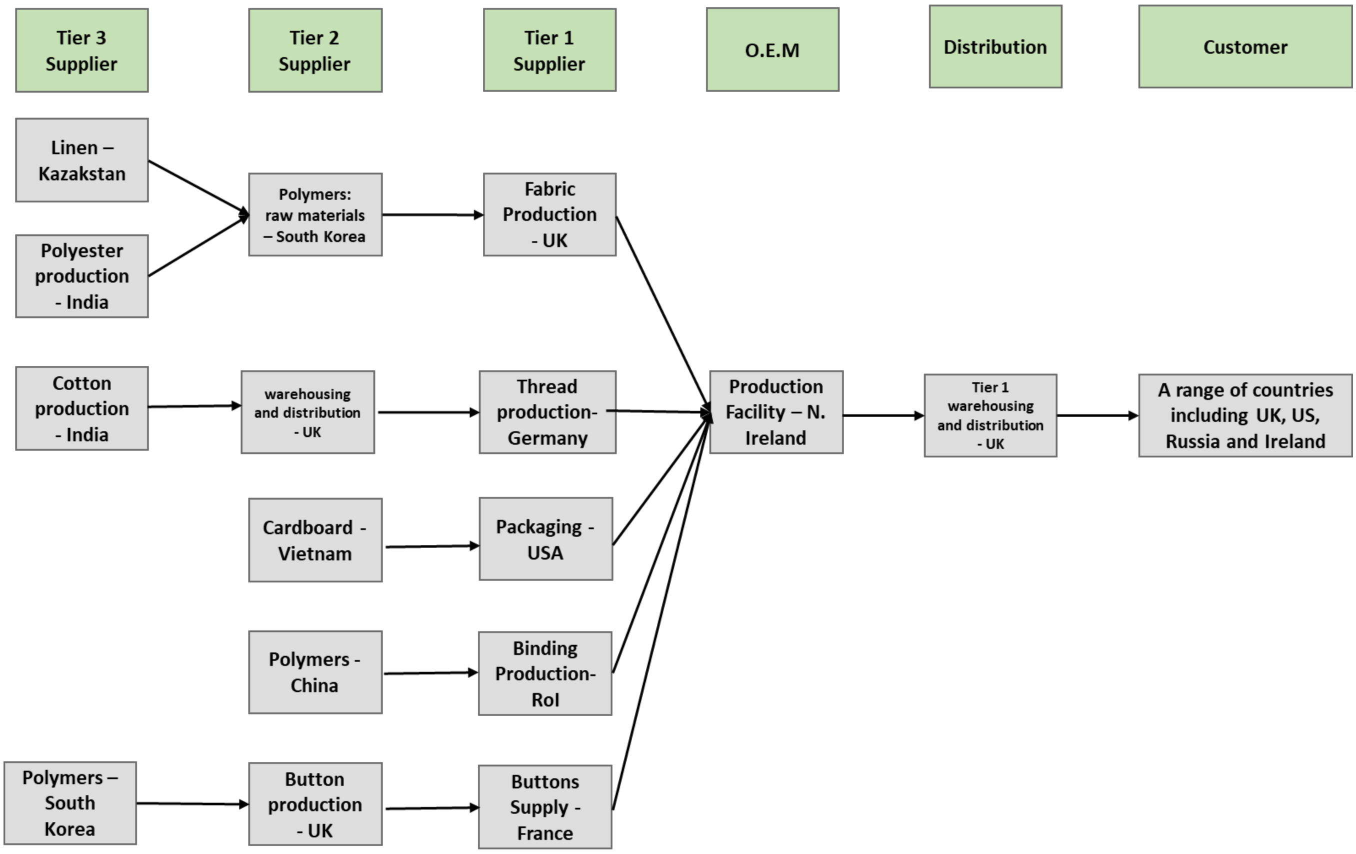


**Figure 1: Supply Chain of textile product (including Brexit Impact Flows)**

**Risks:** In Figure 1, if you are only aware of your first-tier suppliers, you might believe that your only area of threat/risk is the fabric production. Even though it may account for 80%+ of your product, you cannot make the item without the other key components. For example, you might regard buttons as secure, yet as Figure 1 shows, tier 2 button production is in the UK, who in turn get the polymers for buttons from South Korea.

Therefore, under Brexit, supply may be disrupted from the UK and costs and lead times will likely increase. Likewise, the UK will need to agree a new deal with South Korea. Current reports suggest that South Korea trade to the UK is worth more than £9 billion per annum and that South Korea are looking for a more favourable trade than what was agreed when the UK were within the EU UK Department of International Trade (2018), "International Trade Secretary in South Korea discussing how to boost our bilateral trade after Brexit." Available online at: https://www.gov.uk/government/news/international-trade-secretary-in-south-korea-discussing-how-to-boost-our-bilateral-trade-after-brexit

Given the size of the EU and its perceived power to South Korean economy, South Korea agreed a concessionary deal, whereas on dealing with the UK alone, the UK will lose some of this leverage.

Another example in Figure 1 are **threads** (tier 1 supplier is Germany). Again, this appears low risk, yet when we have information about tier 2 suppliers, it is apparent that before threads arrive in Germany they navigate via warehousing in the UK from the source of the materials in India. Whilst the UK is the second largest exporter of services in the world, India is the second fastest growing services sector with a compound annual growth rate of 9% UK India Business Council, (2018), "What Will The UK-India Economic Relationship Look Like Post Brexit in The Light of the Chequers Plan?" https://www.ukibc.com/uk-india-economic-relationship-post-brexit/

The UK wants a Free Trade Agreement with India, yet India are reluctant to agree such a deal unless the UK relaxes its 'workforce mobility' rules. The difficulty in achieving student visas and post study workforce visas complicate the issue in a country where Indian applicants to the UK university sector grew by 27% in 2017. With UK statistics suggesting over 100,000 illegal immigrants from India reside in the UK, (UK Home Office, 2018), this is unlikely to be resolved soon.

A third example from Figure 1 is that there may have a customs border down the Irish sea between mainland GB and Northern Ireland. Therefore, goods coming from the UK to NI may be subject to additional checks and tariffs. Although, there is a plan for these to be offset by a rebate system, this has still to be finalised in terms of details and processes. Undoubtedly, this will add costs and time to the NI business owner.

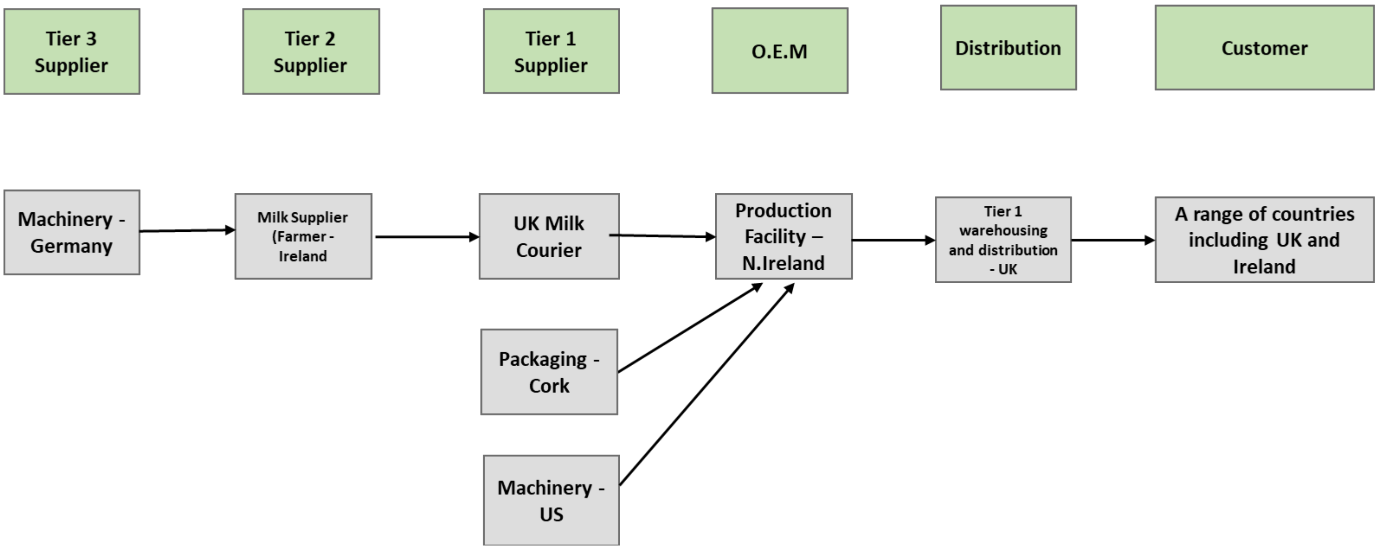


**Figure 2 Supply Chain of a Cheese product of an SME (including Brexit Impact Flows)**

Figure 2 is a more simplistic supply chain. It shows the basic flows of a cheese producer in Belfast, Northern Ireland. This company gets a high percentage of its milk supplies from a farmer in Devon, UK and another farmer in the Republic of Ireland. Also, the farmer uses a courier from NI (County Armagh) to deliver the Irish milk.

Therefore, the courier bringing milk from the Republic of Ireland crosses the border twice on its way to Belfast. It crosses from Northern Ireland to the Republic of Ireland to collect the container of milk. It then crosses back into NI on its way to deliver the milk.

In a scenario where there are cross border checks, this would add significant costs and regulations to the farmer.

Likewise, in a scenario where the production facility was getting milk from its UK mainland courier in Devon, in a scenario where there is a customs border down the Irish sea between NI and mainland UK, this would cause extra costs, regulations and resources in getting the milk product into NI and then distribution to the UK storage facility.