

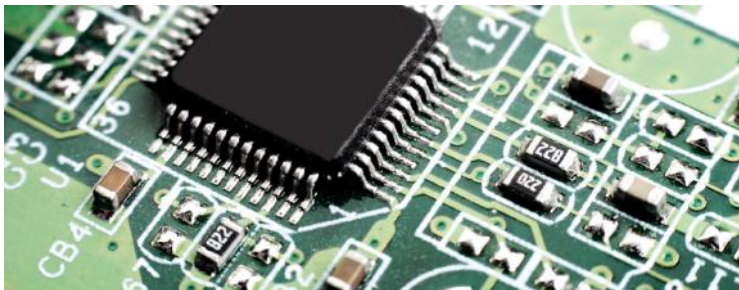
## Machine Vision in the United Kingdom

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Director – Corporate Market Development

EMVA Business Conference, June 9-11, Edinburgh

# ▶ MACHINE VISION IN THE UNITED KINGDOM



## AGENDA

- ▶ The United Kingdom
- ▶ The UK Economy
- ▶ UK Manufacturing
  
- ▶ UK Machine Vision Market
- ▶ Machine Vision Manufacturers
  
- ▶ Culture and the Irish difference
- ▶ The Future
- ▶ And Finally .....



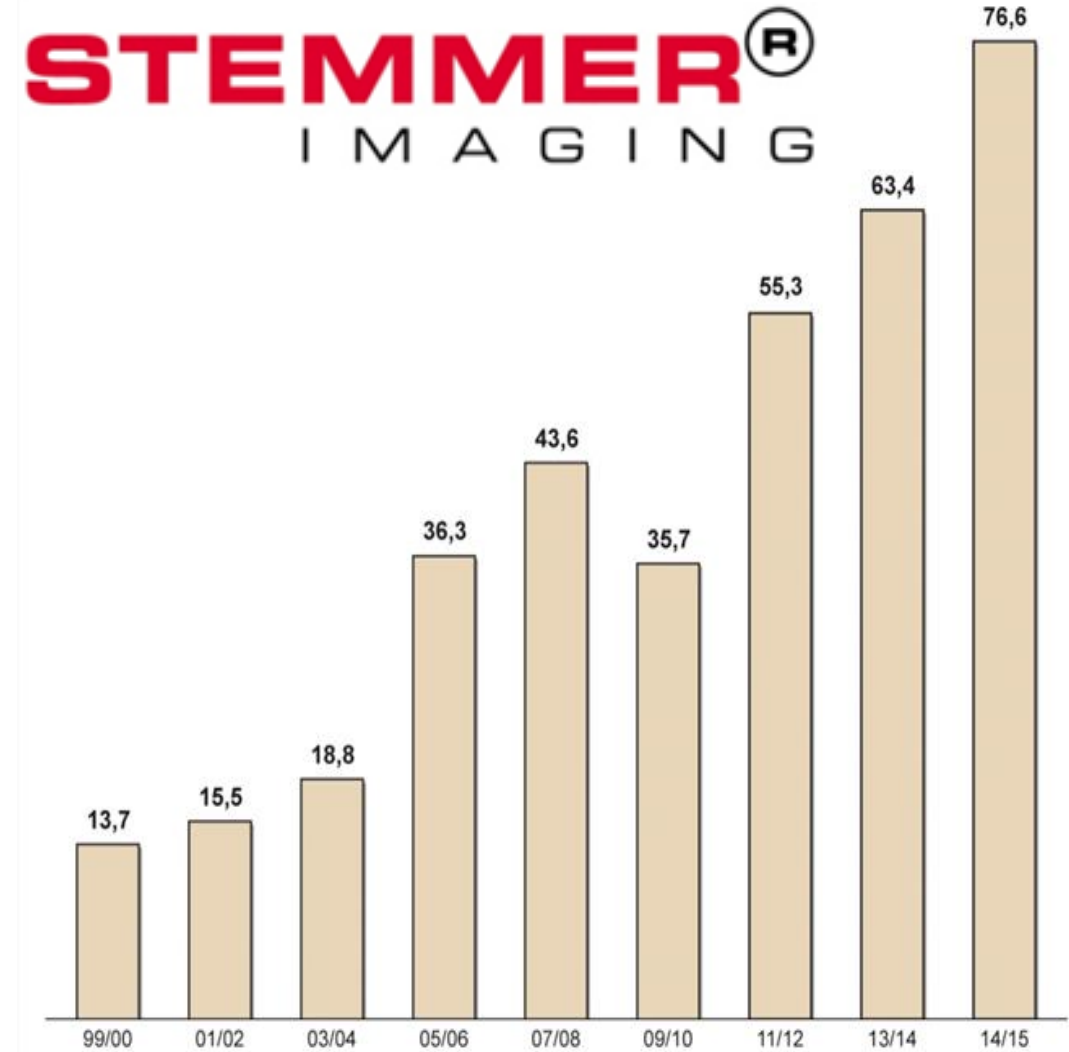
## ▶ STEMMER IMAGING

Our mission is to provide the users and developers of imaging technology with competitive advantage by adding value in the supply of quality components, expertise and support.

- ▶ STEMMER started in 1972
- ▶ Imaging business split off in 1982
- ▶ UK Company started in 1997 as Pinnacle Vision
- ▶ 18% Compound Growth
- ▶ Grown through acquisition and organic growth
  - ▶ UK was first acquisition in 2004
- ▶ Over € 6 million of stock available for next day delivery
- ▶ Manufacturer of CVB





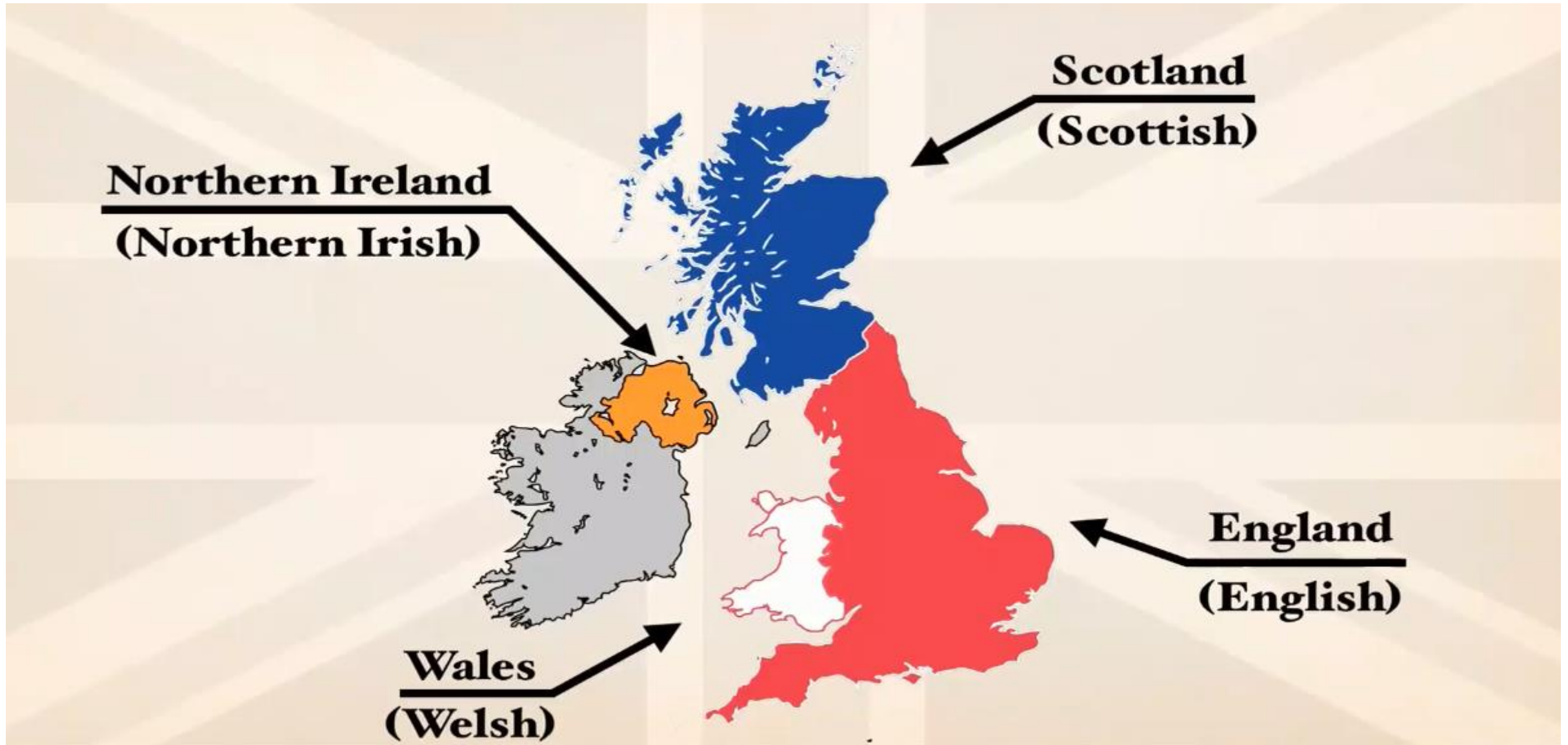


## ▶ THE UNITED KINGDOM EXPLAINED

- ▶ UNITED KINGDOM ?
- ▶ GREAT BRITAIN ?
- ▶ ENGLAND ?
- ▶ IRELAND ?
- ▶ BRITISH ISLES ?

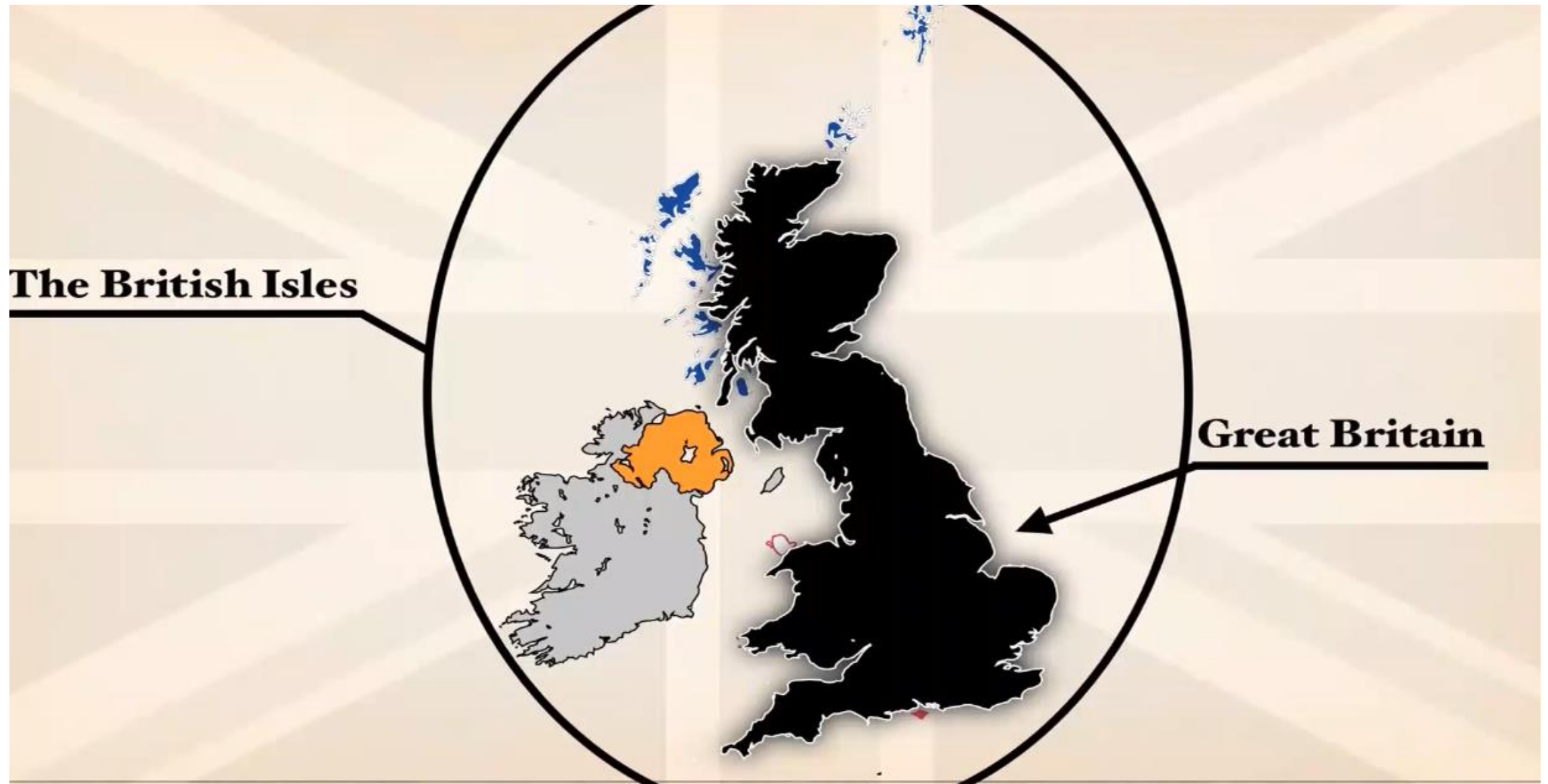


▶ THE UNITED KINGDOM – A COUNTRY OF COUNTRIES



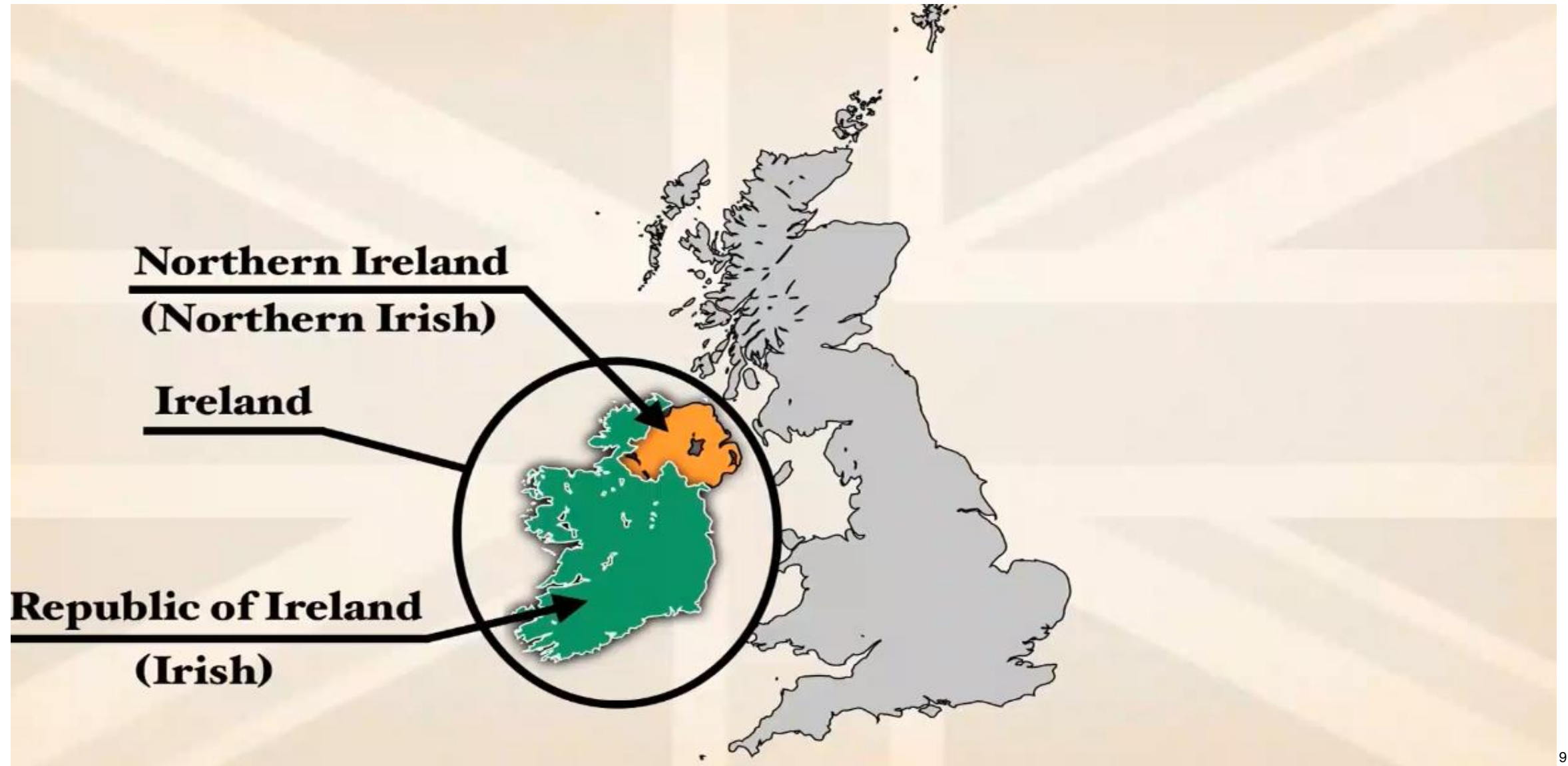
The United Kingdom of Great Britain and Northern Ireland

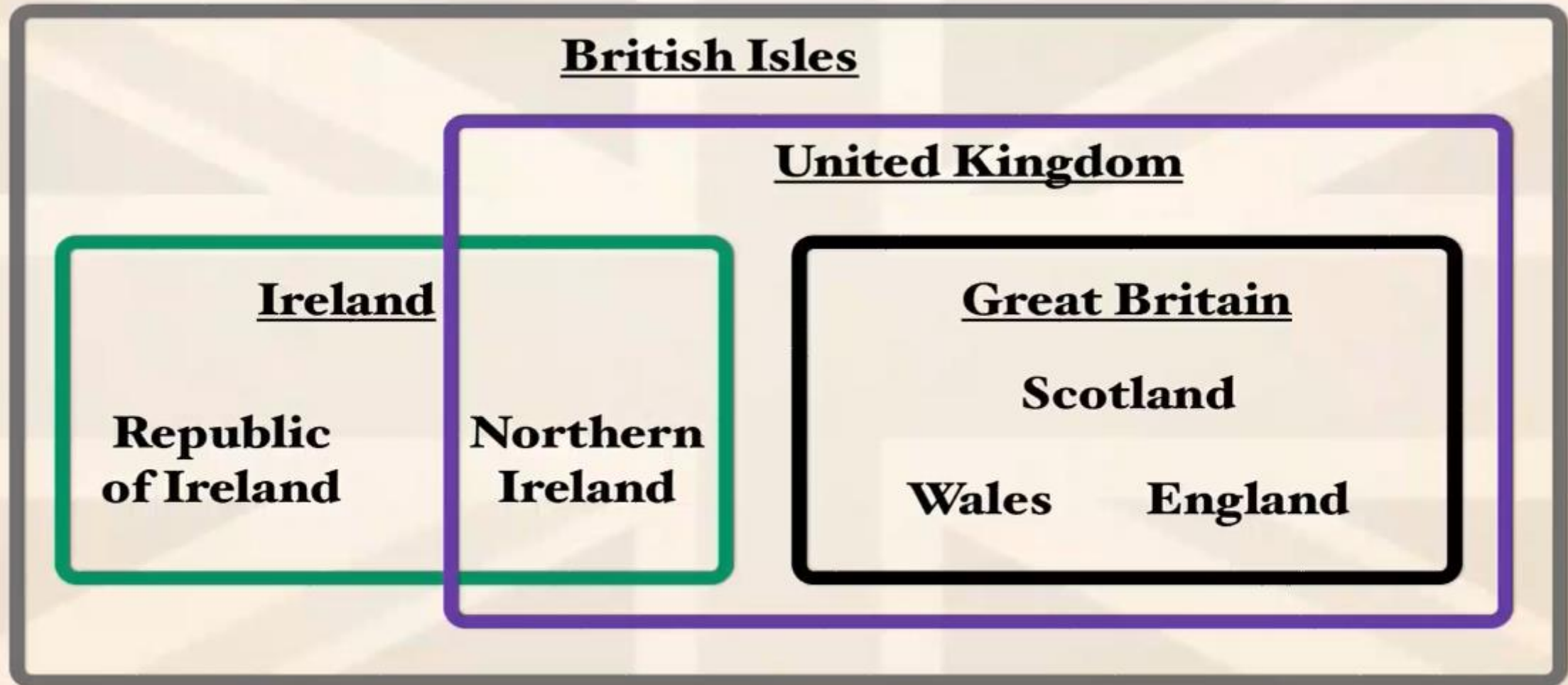
▶ WHERE IS GREAT BRITAIN





▶ WHERE IS IRELAND



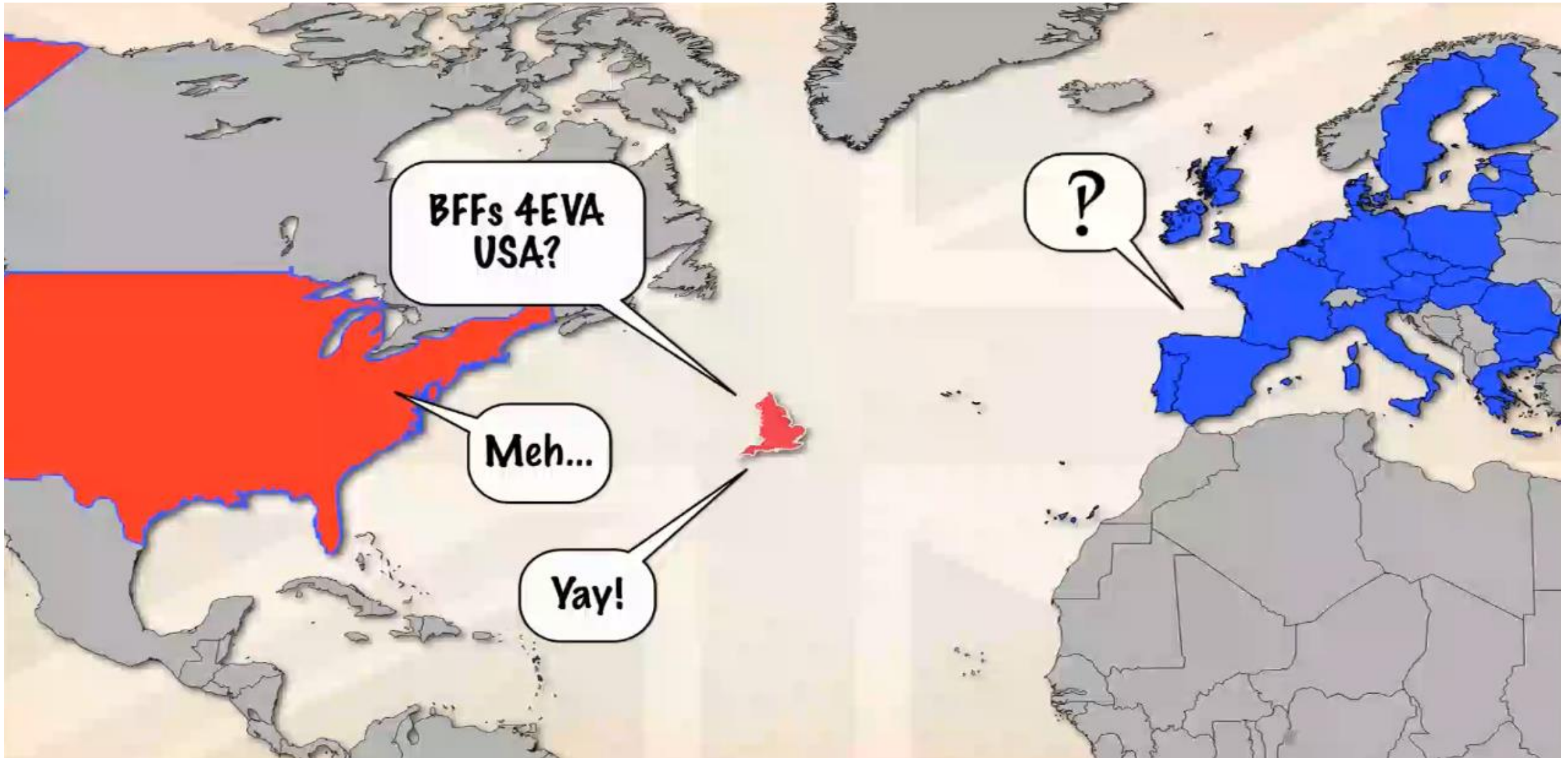


# ▶ UNITED KINGDOM POLITICS



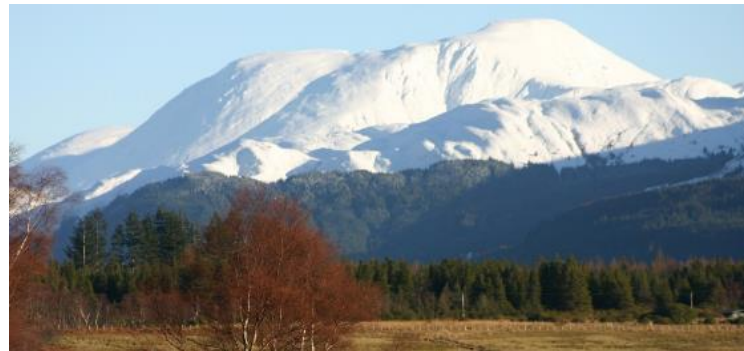


▶ ENGLANDS POSITION POLITICALLY





## ▶ DID YOU KNOW



- ▶ Population 63 million
  - ▶ England 53 M, Scotland 5.3 M, Wales 3 M and N Ireland 1.8 M
- ▶ Land Area 245,000 square kilometres
- ▶ 8,000 kilometres of coastline
- ▶ The highest mountain is Ben Nevis at 1340 meters
- ▶ The UK has 28 UNESCO World Heritage Sites
- ▶ London is the largest destination for inward investment in to Europe
- ▶ The UK leads Europe in Life Sciences, ICT and Creative business sectors

► MORE IMPORTANTLY

England is  
74 times  
smaller than  
the USA.

**Champagne**  
was invented in England  
by scientist  
Christopher Merret in 1662

**James Bond's** code "007"  
was inspired by the author  
Ian Fleming's **bus route**  
from Canterbury to London

Every day UK people drink  
**165 million**  
cups of tea!  
Over 20 times more than  
the average American



The UK has held the land speed record for longer  
than any other country

**Beer**  
was a common  
accompaniment to  
the **medieval**  
English breakfast

About **25%**  
of **Londoners**  
were born outside  
of the UK



Britain is the ninth-largest and **third most populous**  
**island in the world.** It is surrounded by over 1,000  
smaller islands and islets

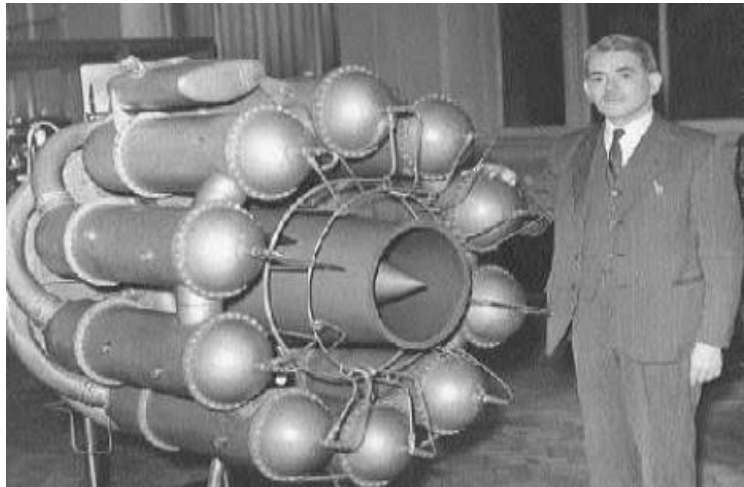
Nowhere  
is more than  
**74½ miles**  
from the sea



## ▶ A HISTORY OF INVENTION

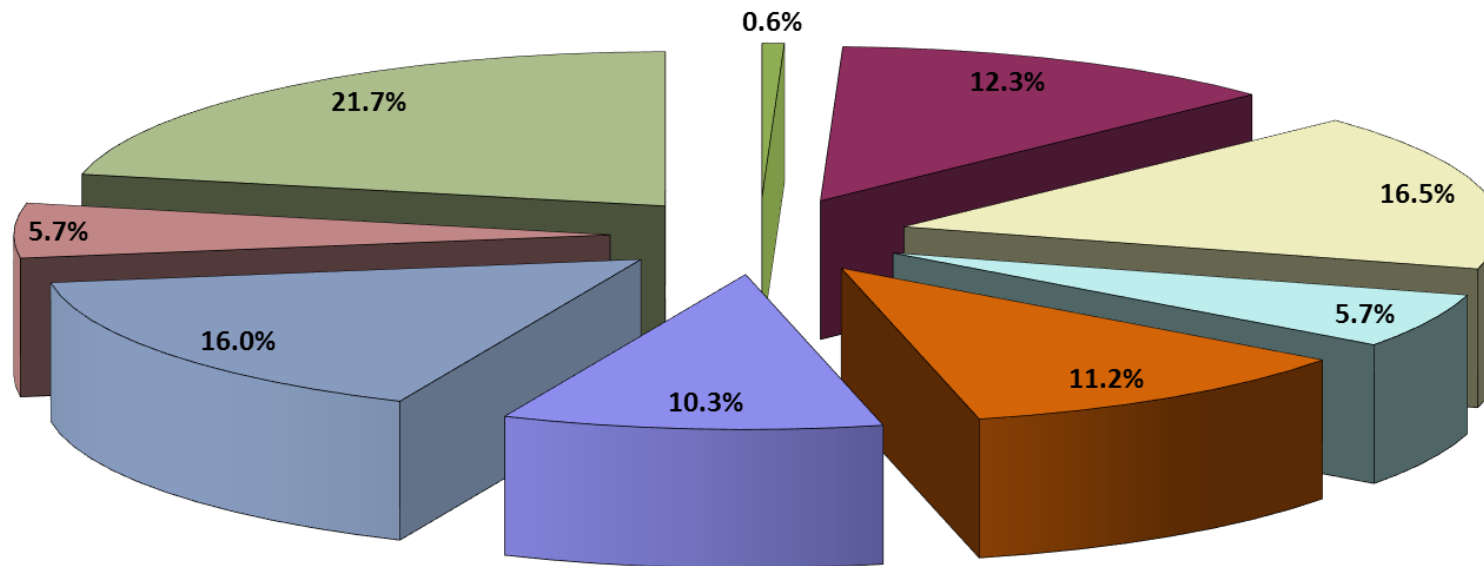


- ▶ 1698 Tom Savery invented the first steam engine
- ▶ 1804 Dick Trevithick built the first steam locomotive
- ▶ 1821 Mike Faraday invented the electric motor
- ▶ 1846 Scotsman Bert Thompson patented the first pneumatic tire
- ▶ 1925 Scotsman John Baird invented the television
- ▶ 1930 Frank Whittle invented the jet engine
- ▶ 1989 Tim Berners-Lee developed the World Wide Web



UK GDP 450 billion

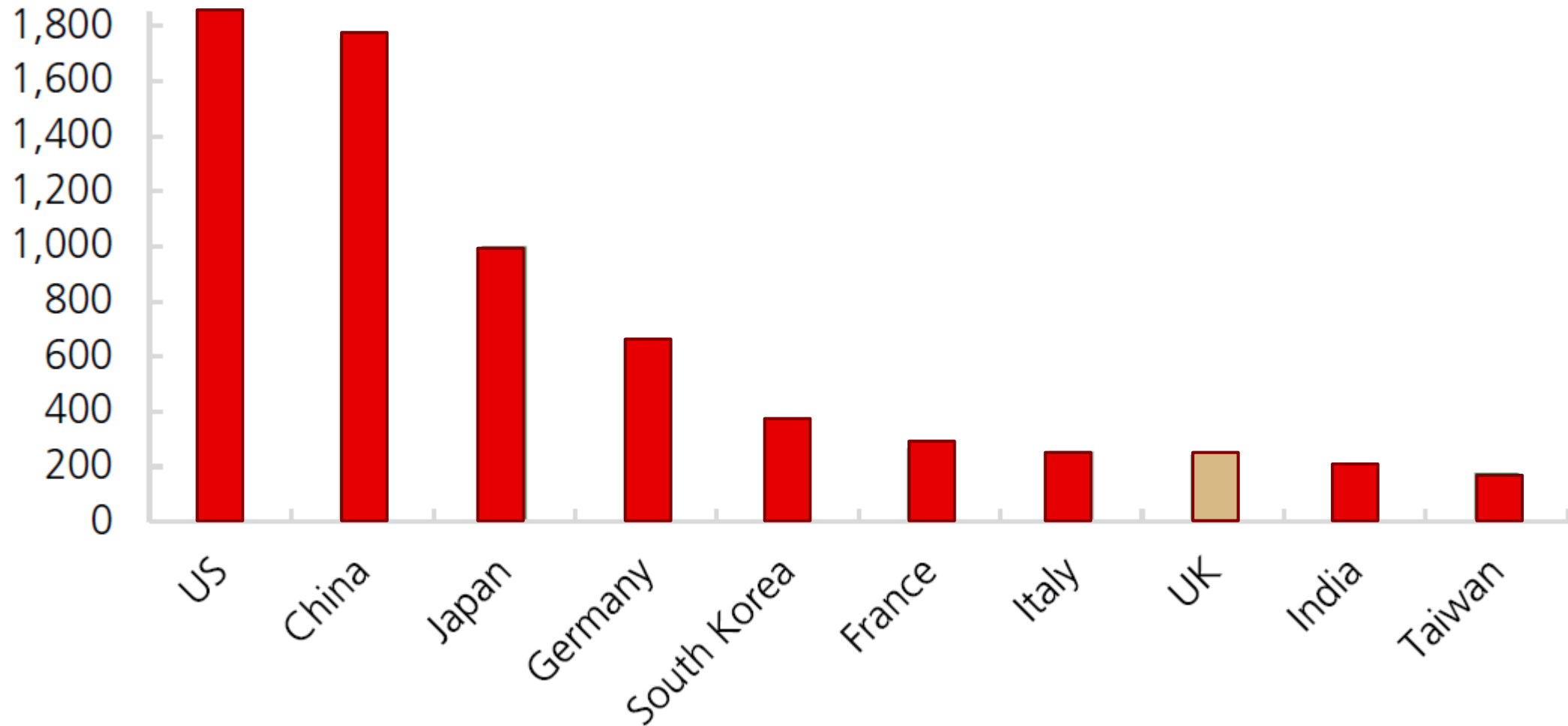
Total service sector: 70.4 % of GDP



- Agriculture, Forestry, Fishing
- Industry
- Wholesale & Retail Trade, Transport, Accommodation and Food Service
- Construction
- Freelance, Scientific and Technical Services
- Real Estate & Housing
- Public Administration, Defence, Education, Human Health and Social Work
- Information & Communication
- Other

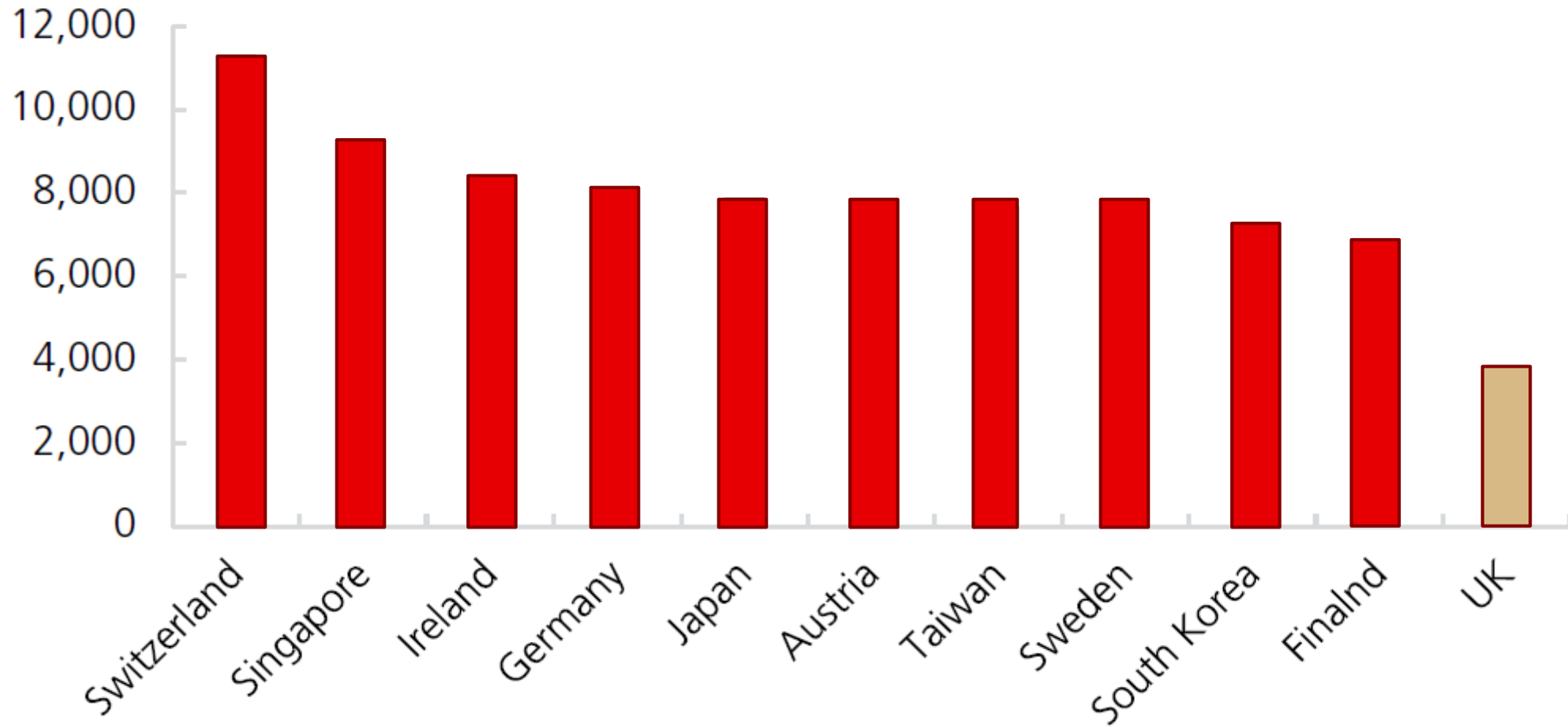


## ▶ MANUFACTURING OUTPUT



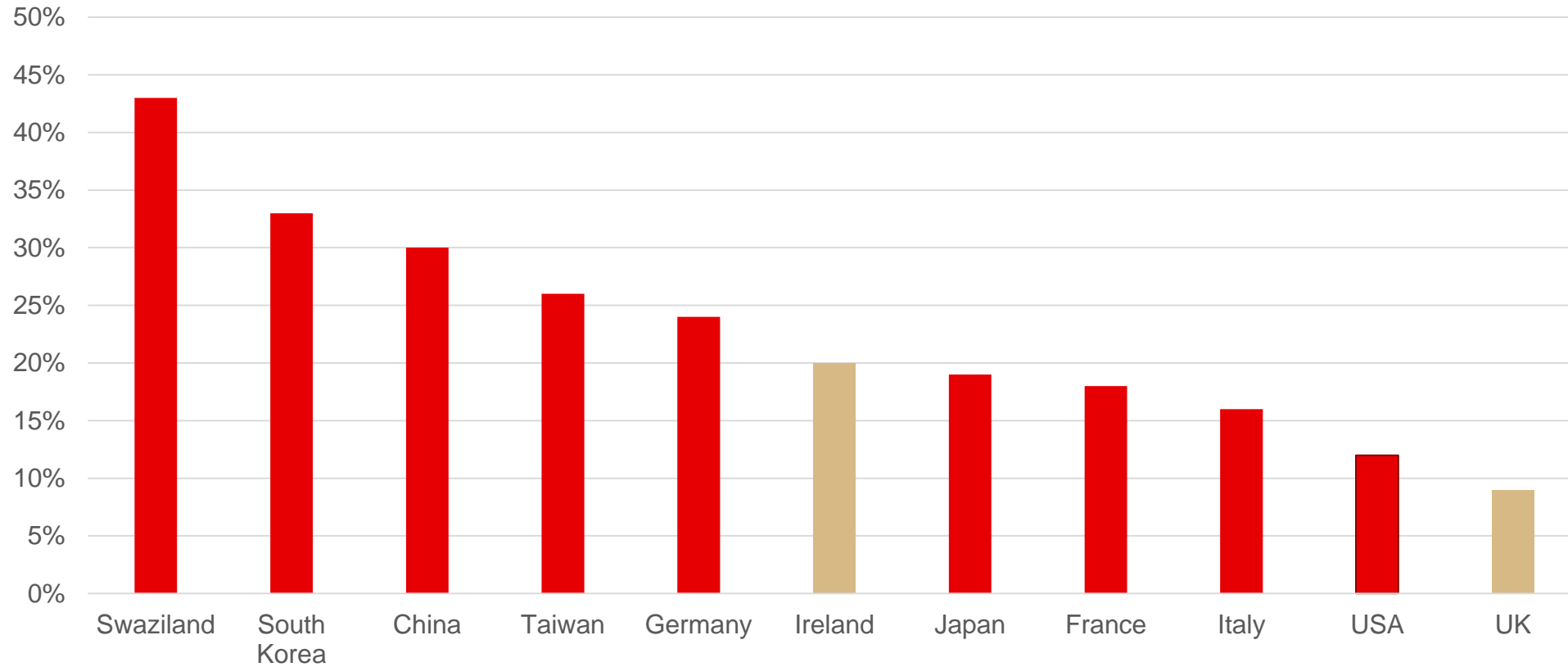
Top 10 \$ billion 2013

▶ MANUFACTURING OUTPUT PER HEAD



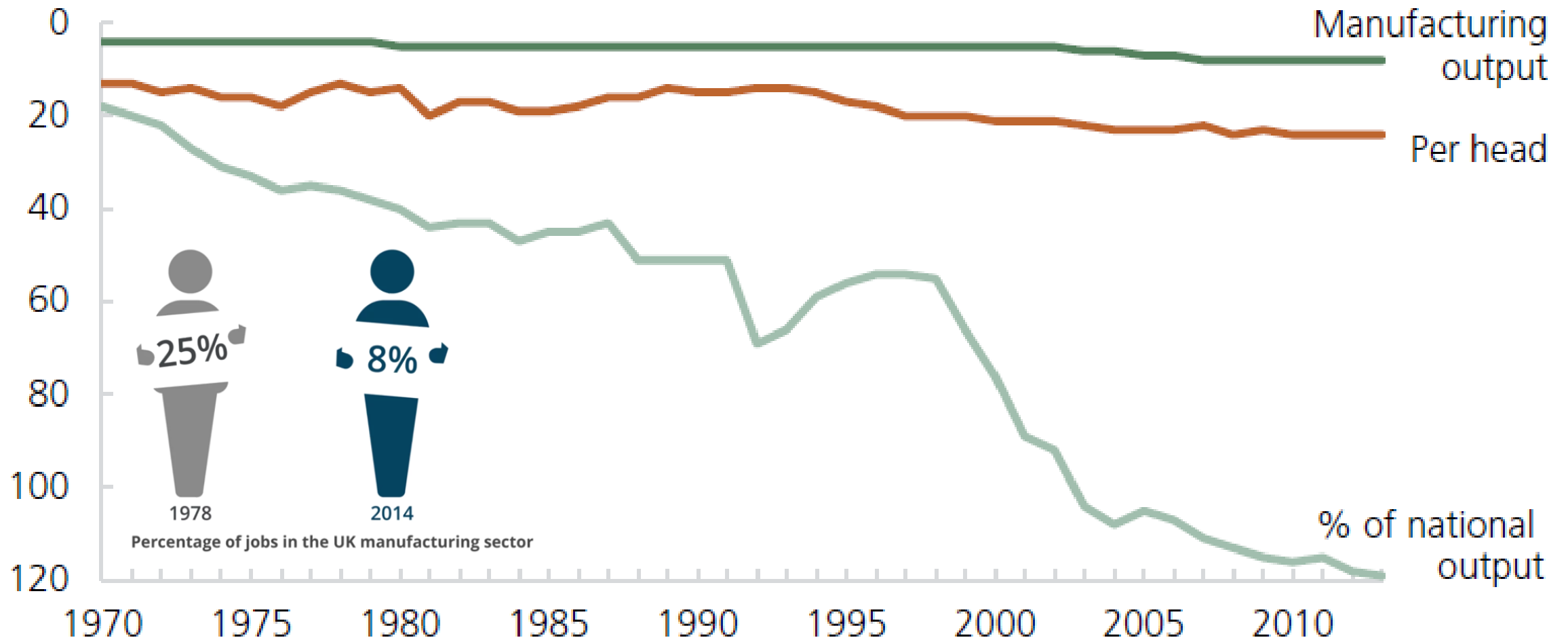
Top 10 \$ 2013

# ▶ MANUFACTURING OUTPUT % GDP



2013

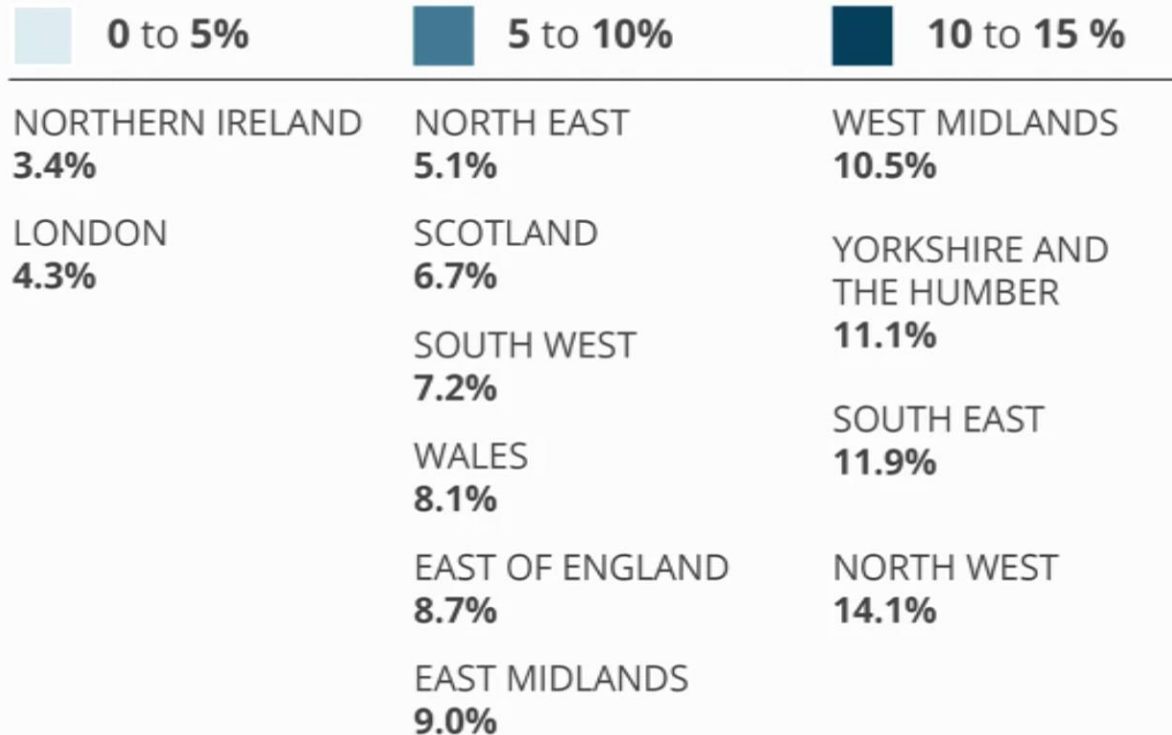
▶ HISTORICAL MANUFACTURING OUTPUT



Out of 237 countries, 1=highest

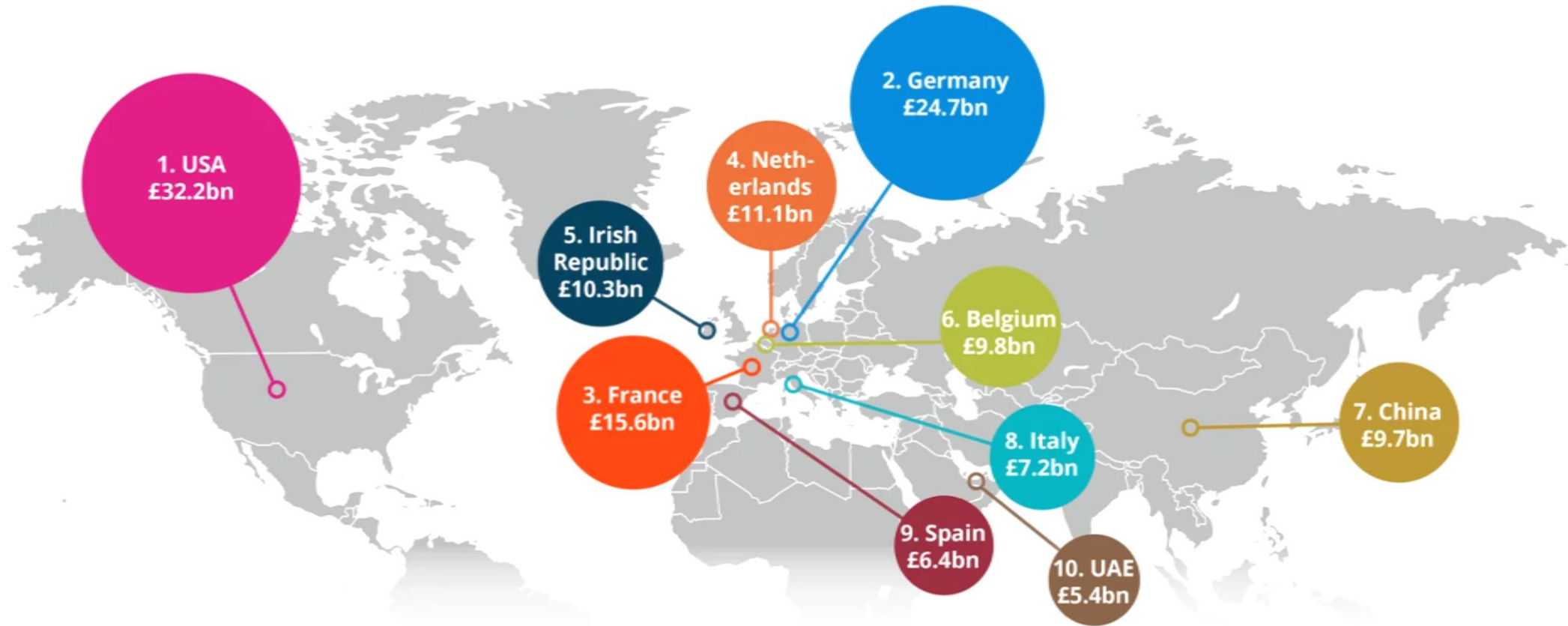


### Manufacturing turnover as a percentage of UK total, 2012



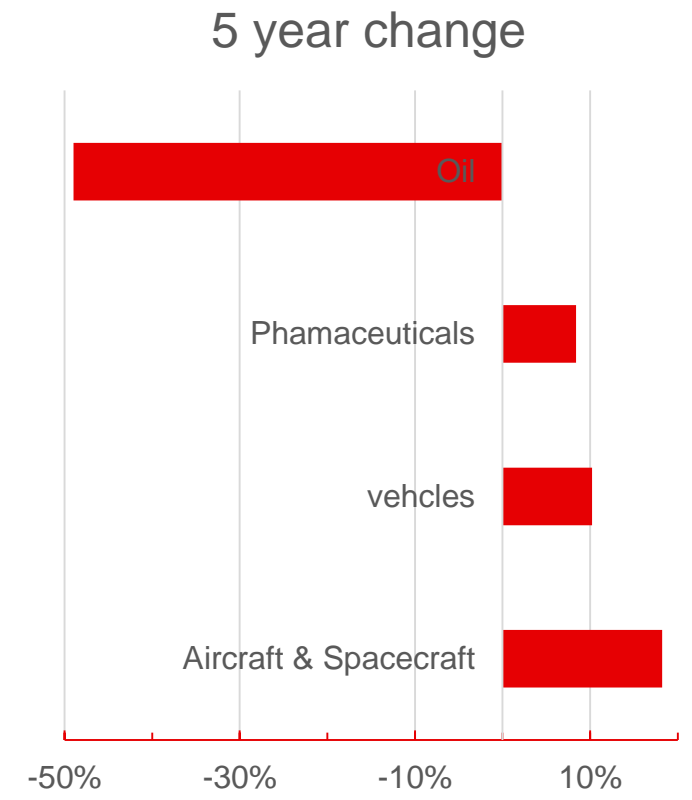
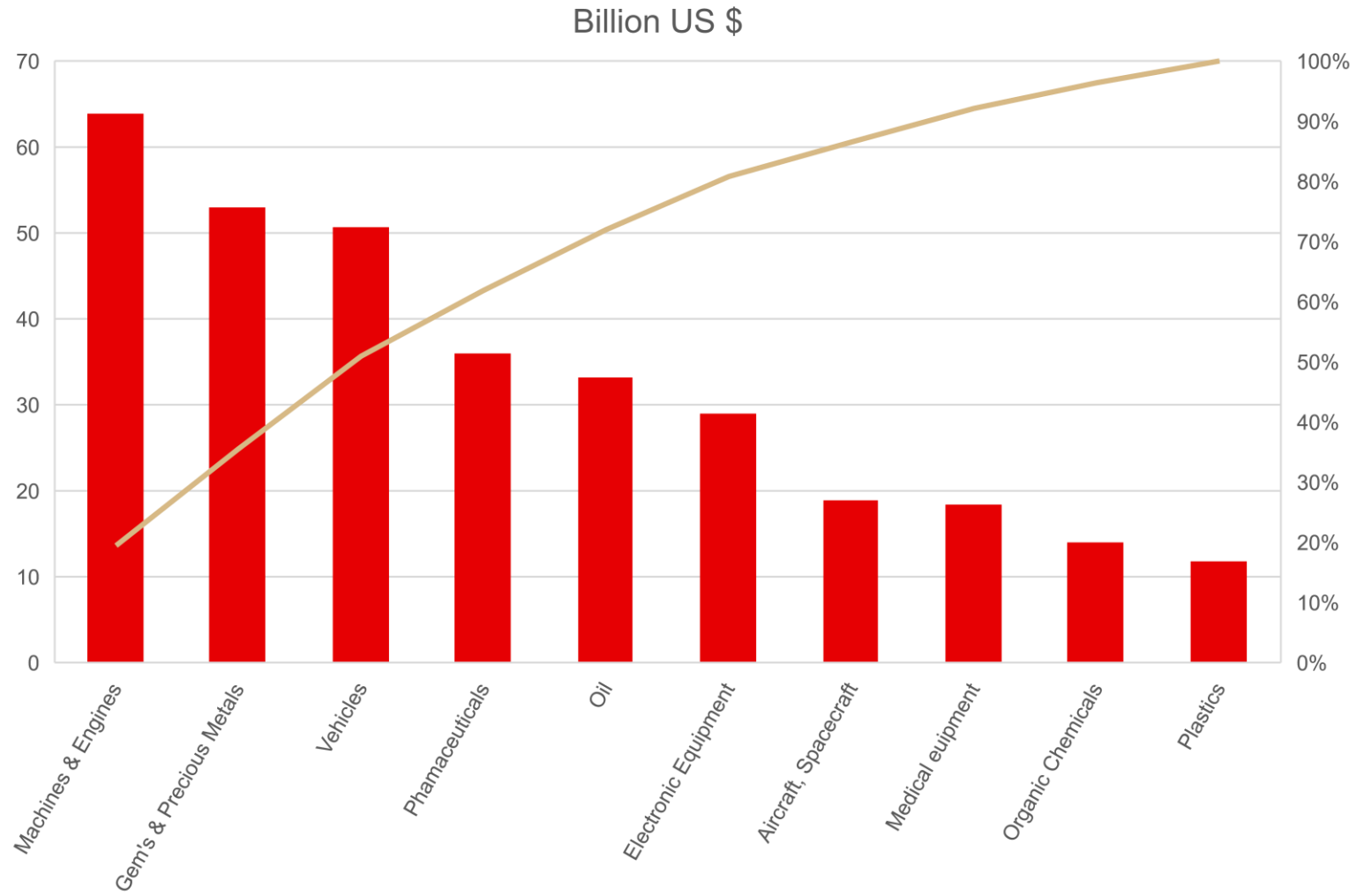
Source: ABS Regional Results, 2012

### Top 10 countries importing UK manufactured goods



Source: HMRC, Overseas Trade Statistics, 2013

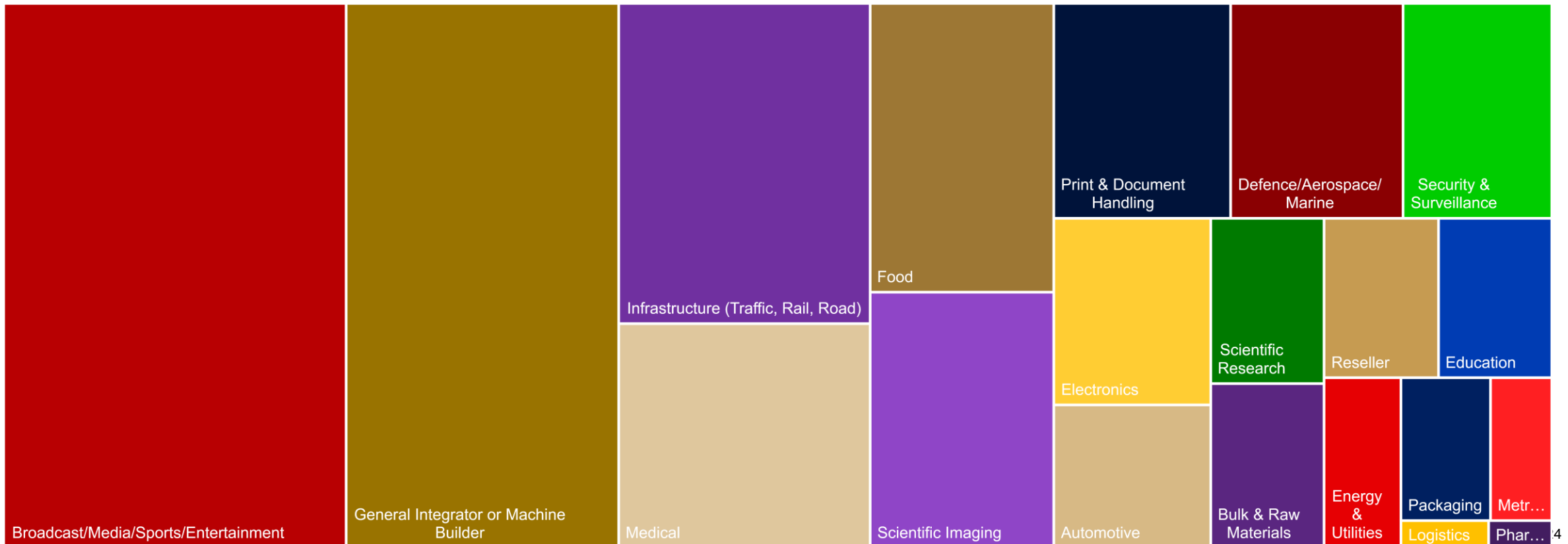
# ▶ TOP UK MANUFACTURING EXPORTS



# ▶ UK MACHINE VISION MARKET DISTRIBUTION

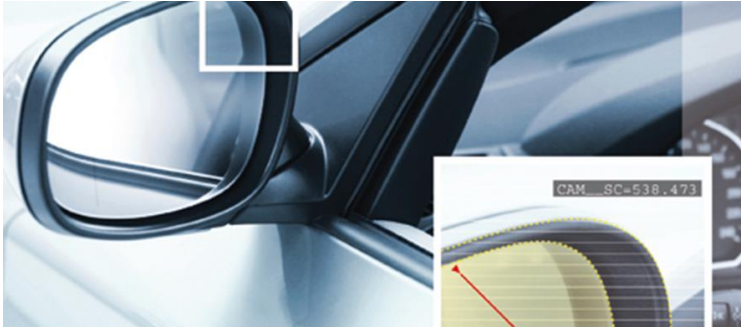
## UK Market

- Energy & Utilities
- Automotive
- Infrastructure (Traffic, Rail, Road)
- Packaging
- Security & Surveillance
- Logistics
- Defence/Aerospace/Marine
- Food
- Pharma, Cosmetics & Healthcare
- Print & Document Handling
- Scientific Research
- General Integrator or Machine Builder
- Metrology
- Medical
- Scientific Imaging
- Education
- ITS/Transport/Security
- Electronics
- Broadcast/Media/Sports/Entertainment
- Reseller





## ▶ UK MACHINE VISION MARKETS OBSERVATIONS



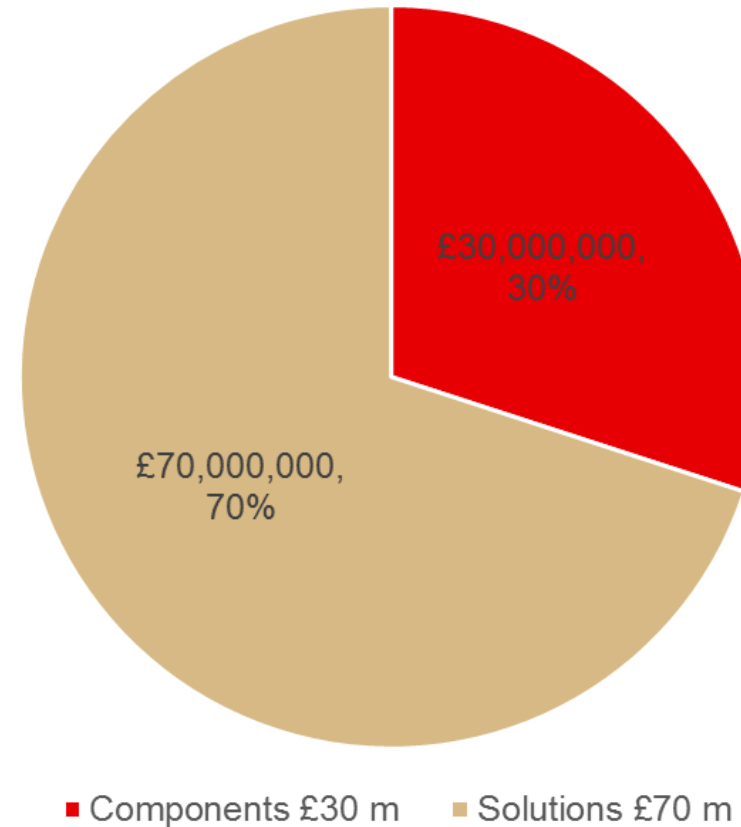
- ▶ UK Car production is making more cars than ever
  - ▶ Most car manufacturing plants are designed outside the UK and shipped in
  - ▶ Jaguar/Land Rover is the exception
  - ▶ Automotive market share is probably a lot higher than reported
- ▶ Non manufacturing applications are significant
  - ▶ Sports/entertainment/.broadcast
  - ▶ Infrastructure
  - ▶ Medical
  - ▶ Food

## ▶ VISIBLE MACHINE VISION REVENUE

### Integrators

- ▶ Bytronic
- ▶ Acrovision
- ▶ Fisher Smith
- ▶ Industrial Vision Systems
- ▶ Olmec
- ▶ RNA Automation
- ▶ Scandinavian Machine Vision
- ▶ Optimal
- ▶ SIGA Vision
- ▶ ITS
- ▶ Crest (Ireland)

### UK Machine Vision Revenue



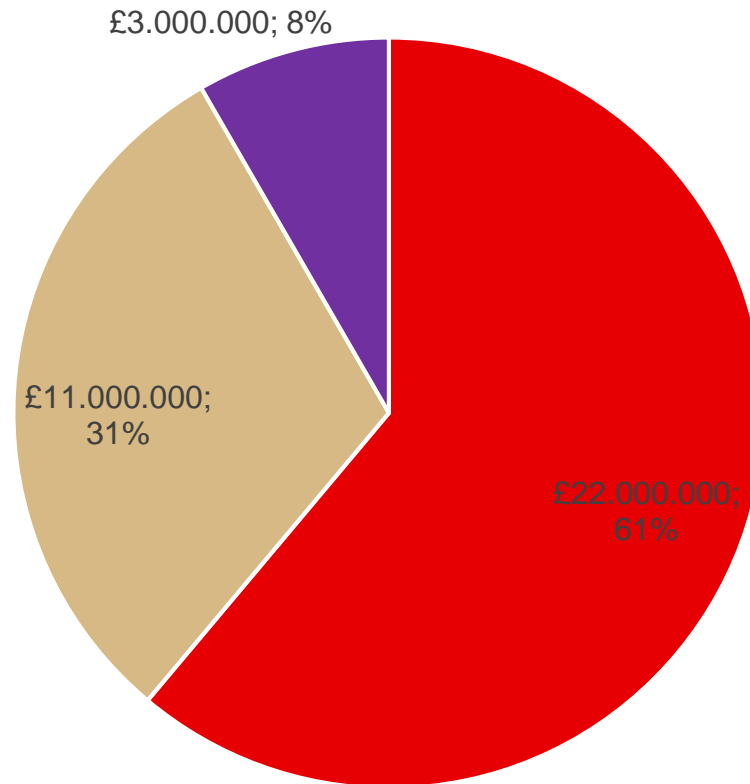
Excludes one man consultants, European players such as ISRA and vertical market suppliers such as Dimarco

▶ MACHINE VISION COMPONENTS MARKET MAKEUP

Components Market £30-£40 Million

Via Direct Sales

- ▶ Cognex
- ▶ Keyence
- ▶ Omron
- ▶ IDS
- ▶ SICK
- ▶ Baumer
- ▶ Microscan



■ Distribution ■ Direct ■ UK Manufactured

Via Distribution

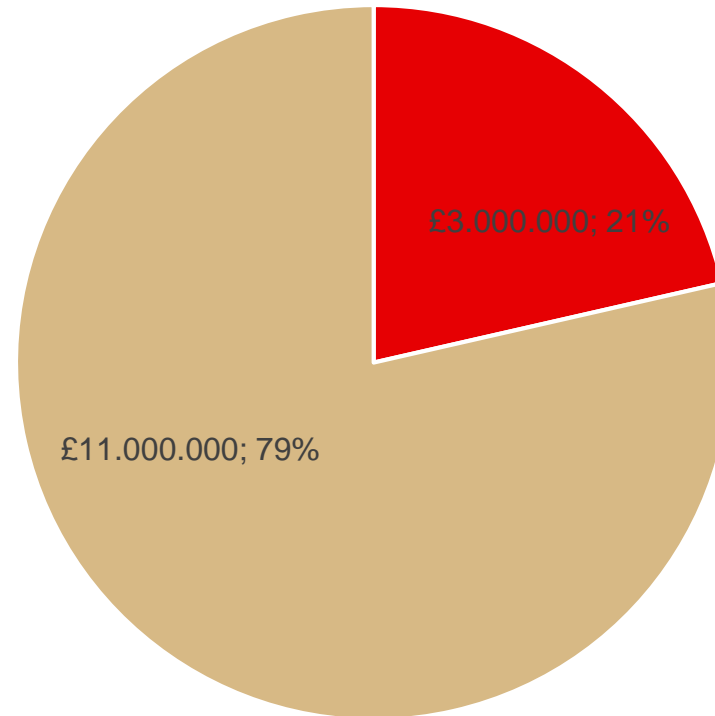
- ▶ STEMMER IMAGING
- ▶ Clearview Imaging
- ▶ Multipix Imaging
- ▶ Alrad
- ▶ Lambda Photometrics
- ▶ Framos

▶ UK MANUFACTURED COMPONENTS

Components

Included : Machine Vision

- ▶ Active Silicon
- ▶ Gardasoft
- ▶ ODOS Imaging
- ▶ ProPhotonics
- ▶ Global Laser



Not Included :

- ▶ E2v - Sensors
- ▶ Thermotechnix - Thermal
- ▶ SXCCD – Low light
- ▶ Raptor Photonics – Low Light
- ▶ Andor - Scientific
- ▶ Scientific Digital Imaging





► BREXIT





# EU REFERENDUM

BETTING BAROMETER  
REFERENDUM OUTCOME BASED ON LIVE ODDS

% CHANCE LEAVE

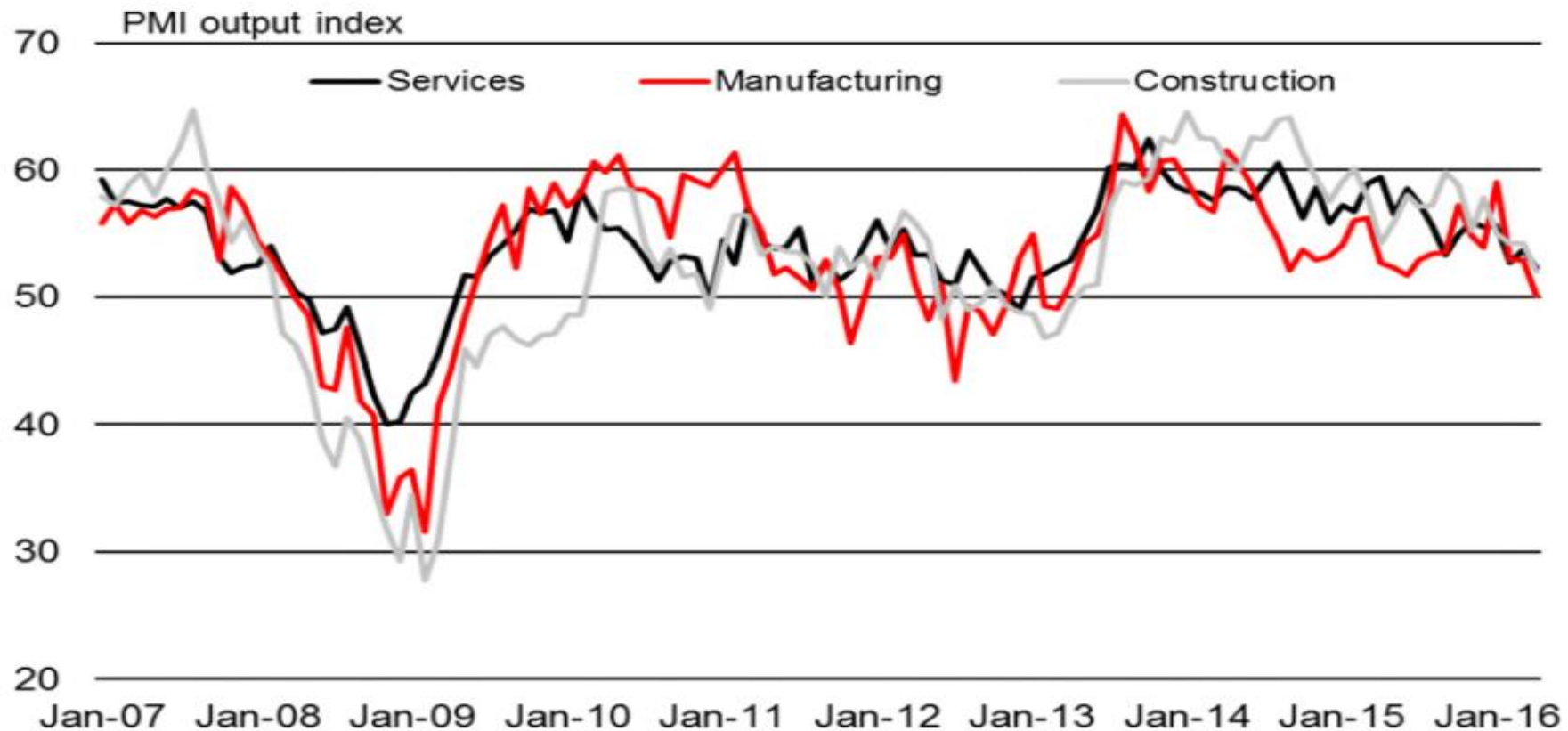
11/4

% CHANCE REMAIN

2/7

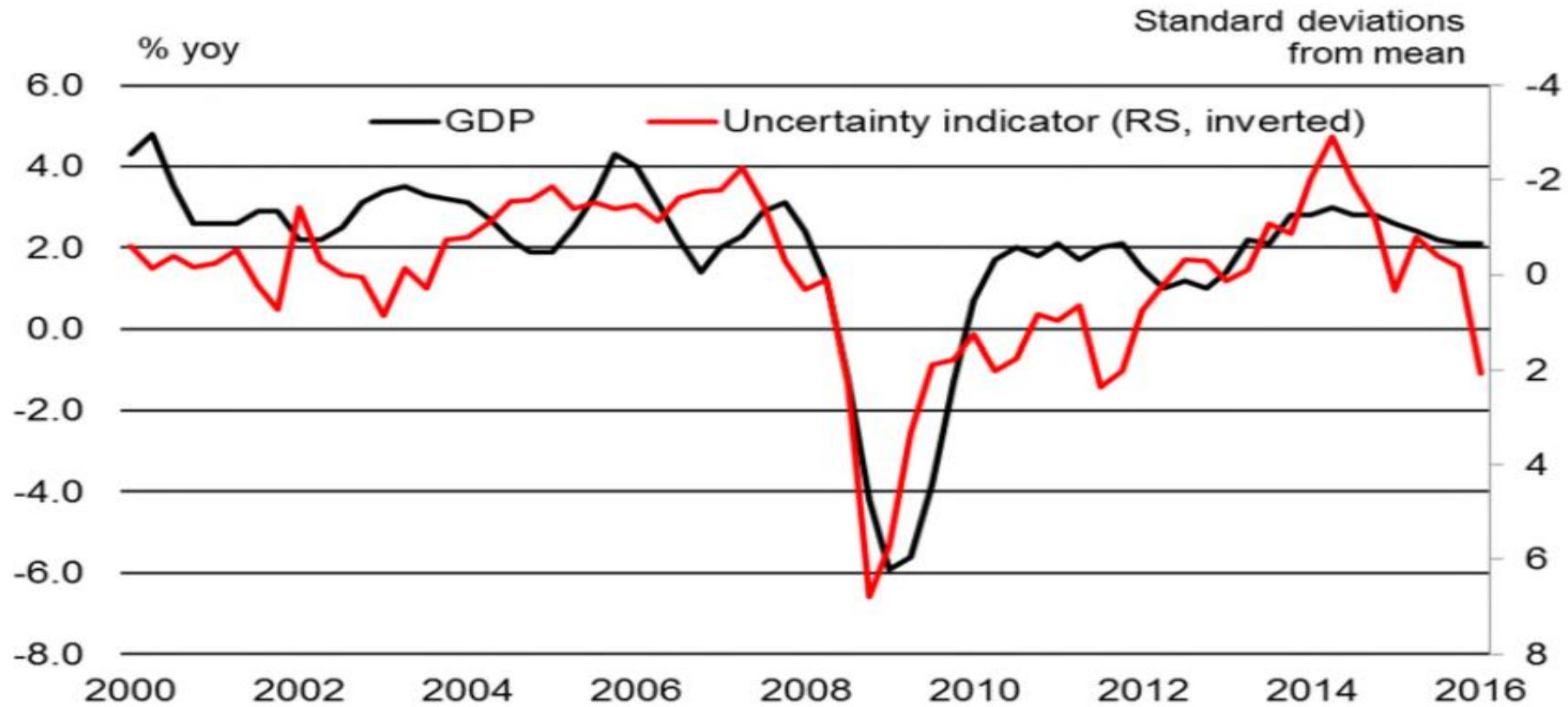
26%/74%

## ▶ THE ECONOMY IS SLOWING

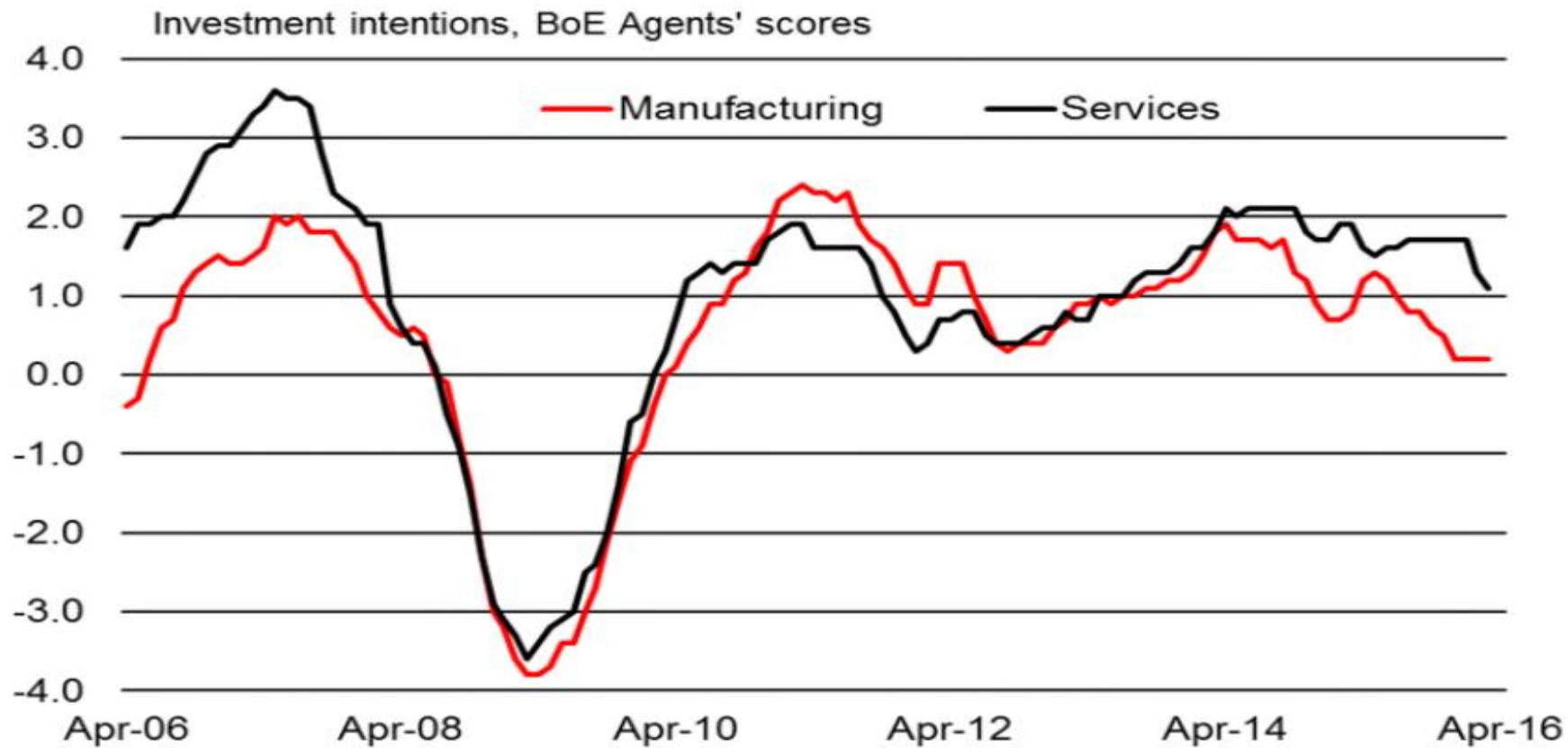




▶ UNCERTAINTY IS ELEVATED



## ▶ INVESTMENTS ARE SLOWING





- ▶ If Brexit does NOT happen
  - ▶ Exchange rates likely to rally to 1.35 €/£
  - ▶ Investment uncertainty will lift
  - ▶ Expect a recovery of recent softening of the market
  
- ▶ If a Brexit happens
  - ▶ Exchange rates will drop to 1.1 €/£
  - ▶ GDP will be 6% lower that it otherwise would be by 2030
  - ▶ Likely to enter recession within 2 years

Information provided by unicredit

## Any Questions

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**Thank you !**

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