A problem

Rising wages depend on growing productivity

Hourly earnings and output per hour, index: 1993=100

Source: Data based on analysis of ONS national accounts and ASHE data (courtesy of Professor Paul Gregg, the University of Bath). *Hourly earnings is defined as mean compensation per employee hour.
UK attracts more overseas investment in R&D than many major countries, including Germany, France and China.
Going well (2): business creation

The UK’s record in creating new businesses compared to other countries

Percentage change in the number of new businesses created between 2007 and 2015

UK is ranked 7th globally in the World Bank’s Ease of Doing Business Index

The UK's employment performance compared to other countries

Going well (3): employment rate

- UK has one of the most successful labour markets in the world
- Employment rate near historic high
- World-class higher education system

Source: OECD (2017) "Employment Outlook 2017". *Employment rate is as a per cent of working-age population working (aged 15-64)
Not so well (1): R&D spend

We invest less in R&D than most of our competitors –
UK: 1.7% of GDP
US: 2.8%
Germany: 2.9%
OECD avg: 2.4%

Source: OECD (2017) “OECD Economic Surveys: United Kingdom 2017”. *2014 data for France, Ireland, Italy, Portugal and OECD aggregate. 2013 data for Belgium, Israel, Luxembourg and Sweden. Non-government financed includes finance from higher education, which may be partly government-financed; and from the rest of the world, which may include foreign and supranational government finance.
Not so well (2): Fixed capital investment

UK’s investment rate lowest in the G7

Many UK businesses are not investing as much as our competitors’ businesses in skills, technology and equipment.

Fixed capital investment in the UK compared to other G7 countries

Not so well (3): Growth across the country

UK has greater disparities in regional productivity than other European countries.
We will create an economy that boosts productivity and earning power throughout the UK:

- **Ideas**
  - the world's most innovative economy

- **People**
  - good jobs and greater earning power for all

- **Infrastructure**
  - a major upgrade to the UK's infrastructure

- **Business environment**
  - the best place to start and grow a business

- **Places**
  - prosperous communities across the UK

Additional measures include:

- Raise total research and development (R&D) investment to 2.4 per cent of GDP by 2027
- Establish a technical education system that rivals the best in the world to stand alongside our world-class higher education system
- Increase the National Productivity Investment Fund to £31bn, supporting investments in transport, housing and digital infrastructure
- Launch and roll-out Sector Deals - partnerships between government and industry aiming to increase sector productivity. The first Sector Deals are in life sciences, construction, artificial intelligence and the automotive sector
- Drive over £20bn of investment in innovative and high potential businesses, including through establishing a new £2.5bn Investment Fund, incubated in the British Business Bank
- Agree Local Industrial Strategies that build on local strengths and deliver on economic opportunities
- Create a new Transforming Cities fund that will provide £1.7bn for intra-city transport. This will fund projects that drive productivity by improving connections within city regions
“A truly strategic government must do more than just fix the foundations: it must also plan for a rapidly changing future, look to shape new markets and industries, and build the UK’s competitive advantage.”
Foreseeable change

Global venture capital investment in artificial intelligence

Cumulative average growth rate (CAGR), 2010-2016

- 57% CAGR


Shift of global investment towards the clean economy

Stowe Global Coal Index and global green bonds issuance

Source: Climate Bonds Initiative (2017); Stowe Global Indexes. *2017 green bond issuance is estimated. The Coal Index takes the last data of each month from Jan 11 to Oct 17

UK electric car ownership has increased rapidly since 2010

New electric car registrations

Source: Department for Transport (2017) Vehicles statistics. *Electric car includes plug-in hybrids, 100% electric, range extended electric and fuel cell electric cars

By 2046 almost 1 in 4 people will be 65 years old and over

UK population and proportion of population aged 65 and over

Source: ONS (2017) “Population estimates” *2016-based population projections are used
Industrial Strategy: Grand Challenges

We will set Grand Challenges to put the future of the UK at the forefront of the industries of the future.

The public and private sector must work with universities, researches and civil society to put the UK at the forefront of these revolutions, breaking down conventional barriers within and between business sectors and academic disciplines.

- **AI & Data Economy**: We will put the UK at the forefront of the artificial intelligence and data revolution.
- **Future of Mobility**: We will become a world leader in the way people, goods and services move.
- **Clean Growth**: We will maximise the advantages for UK industry from the global shift to clean growth.
- **Ageing Society**: We will harness the power of innovation to help meet the needs of an ageing society.
Example: clean growth

We will:

- increase our support for innovation so that the costs of clean technologies, systems and services are reduced across all sectors;

- align our policies, regulations, taxes and investments to grow the markets for these new innovations so that they are successfully commercialised in the UK.
Industrial Strategy Challenge Fund

Requirements

Expressions of interest must:
1. Be industry-led. (May be a combination of industry, academia, and public sector partners)
2. Demonstrate clear alignment with at least one of the Grand Challenges in the Industrial Strategy

Selection criteria

• **Challenge is compelling**, focused, and articulated in a way that anyone will understand and see the benefit of solving
• It is **industry-led** in an area of existing UK strength
• It takes advantage of our research depth and **expertise**
• There is a clear **opportunity for growth** with a sustainable global market and contribution from industry
• Evidence indicates that Government intervention is necessary and of **strategic importance** to the UK
• Evidence indicates that solving the challenge will catalyse **productivity growth**