

# European Market Overview 2019



Presented  
on behalf of **Radtech Europe**  
by  
Paul Kelly  
of **Luxsit Ltd**

Wednesday March 11<sup>th</sup>





- Introduction
  - Global Trends
- Radtech Europe Market Survey
  - Market Sentiment
  - State of Business
- Regulatory Update
- Extraordinary Factors
- Conclusions

## ✓ Introduction

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# Introducing - Radtech Europe Marketing Committee



Pieter De Maeght, allnex



Daniel Kunz, BASF



Stephane Guinot, Arkema



Jeroen Diepgrond, IGM



David Engberg, Perstorp



Petra Lenz, BYK



Elke Verbaarschot, Lejuene



Paul Kelly, Luxsit Ltd.



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# Global Trends in relation to Radcure

## Mega Trends

### Population

The world population will reach 9.7 bn people by 2050 – compared to 7.5 bn today

### Climate change

Average sea level expected to rise 30cm by 2065

### Growing Middle Class

3.59bn people make up the global middle class, and forecast that the group would grow to 5.3bn by 2030.

### Ageing

3.59bn global middle class today is forecasted to grow to 5.3bn by 2030.

### Urbanization

By 2050 70% of the global population will live in cities

## Macro Trends

Resource efficiency

Cost savings

Energy

Renewables

Convenience

Quality

Health and safety

Emission reduction

## Radcure Trends

High reactivity

3D Printing

Low energy LED

Waterborne

Bio based

Surface cure

Adhesion

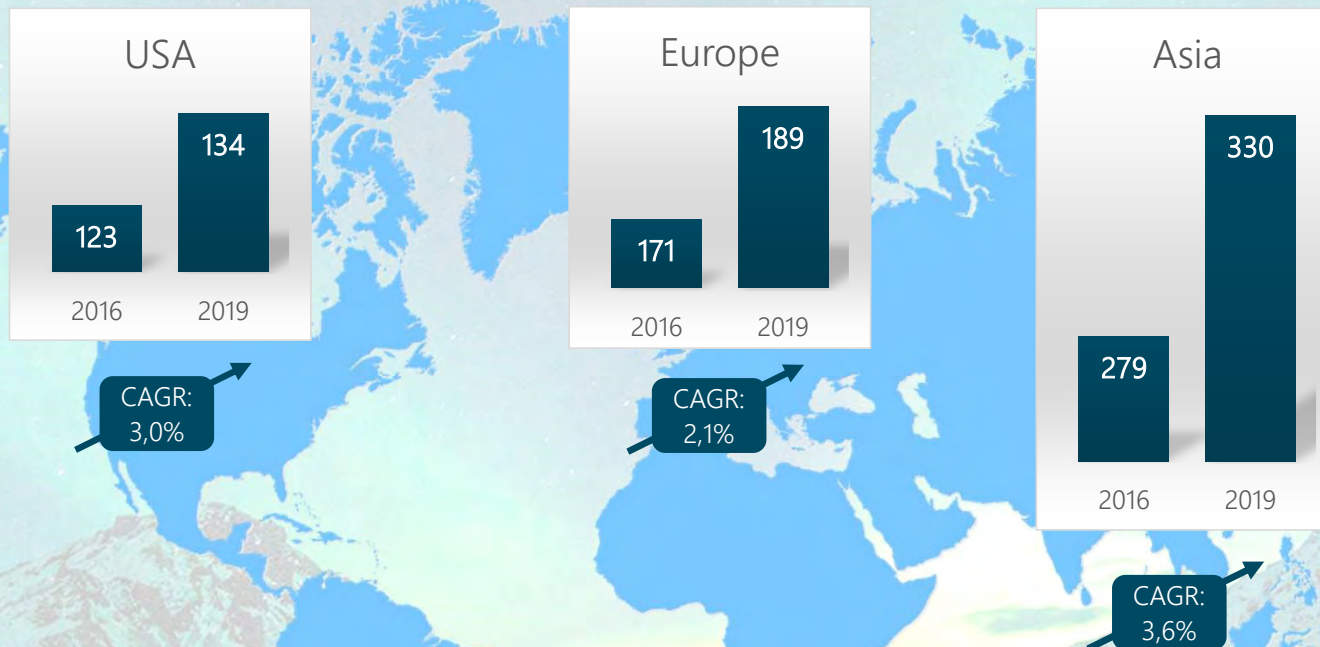
Digital inkjet printing

Outdoor materials

Low Migration

VOC free

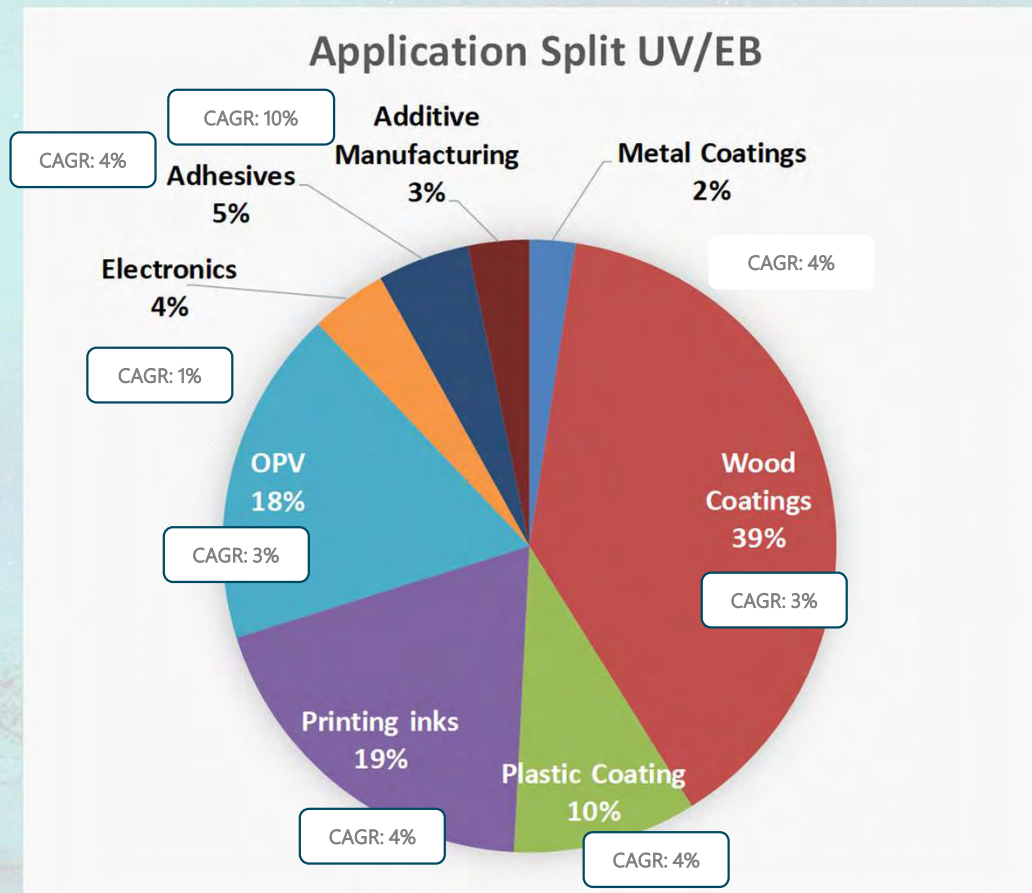
# Global Market of Formulated product



Total Global volume estimated to 630kT



# Application Split



- Traditional segments wood coating, printing inks and OPV are still dominant
- Additive manufacturing stands out with estimated high growth rate of 10%

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# Radtech Europe Market Survey 2019



- Based on Responses of individuals representing Radtech Europe Member companies
- Total of 29 Companies responded

Including:

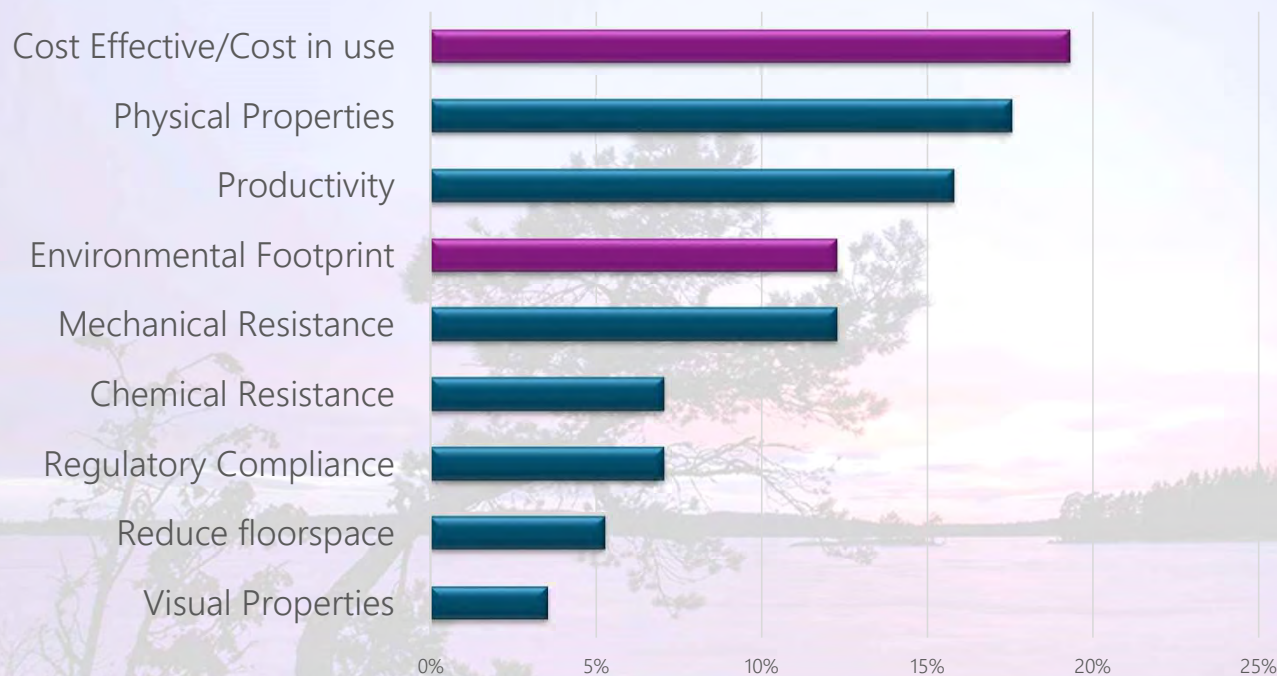
- BASF
- Allnex
- Arkema
- Libero
- Radsys
- Perstorp
- Sadechaf
- Rahn
- Schmid-Rhyner
- Covestro
- PPG
- Sioen
- Excelitas
- Bluewin
- Univar
- IGM
- Bona
- Domino

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# Radtech Market Survey 2019

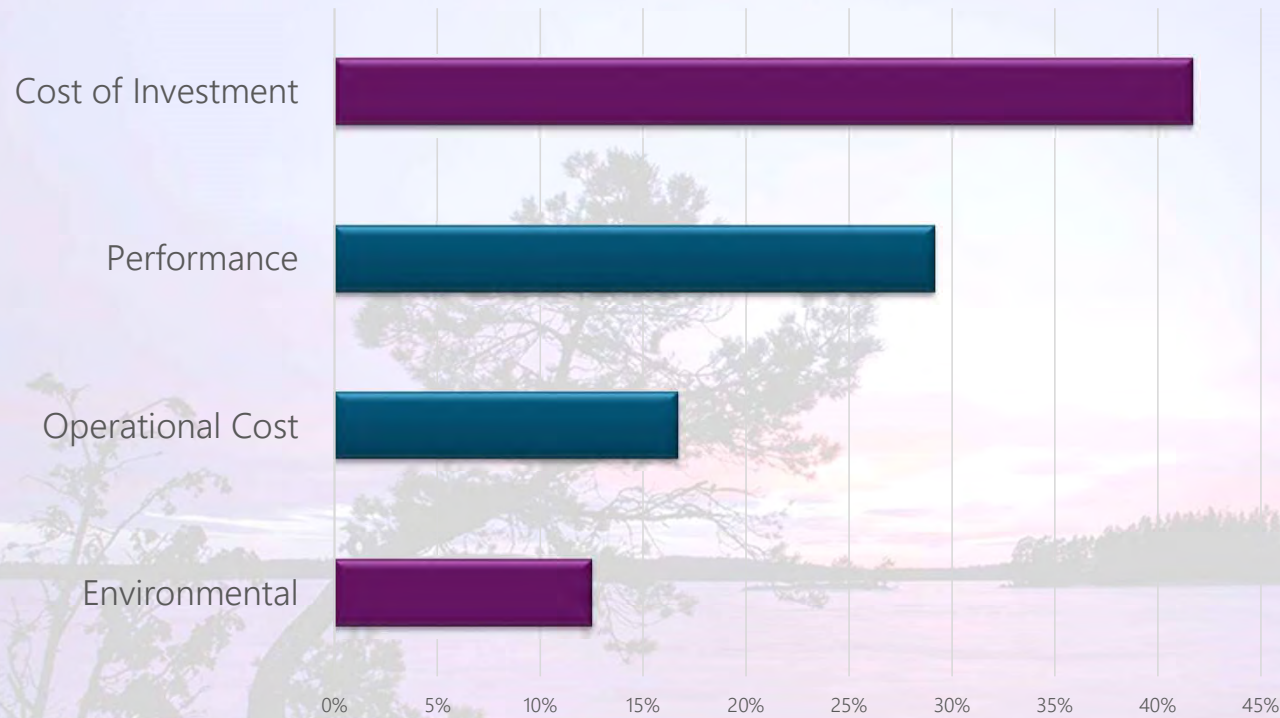
What is the most important driver to increase the adoption/Use of  
UV/EB Curing



- Cost is still seen as the most important driver for adoption of UV/EB Curing
- Although high on many companies agenda, Environmental footprint is only on 4<sup>th</sup> place. This is a similar level as reported in the Market outlook in 2017.

# Radtech Market Survey 2019

What is the key driver for Investment consideration?



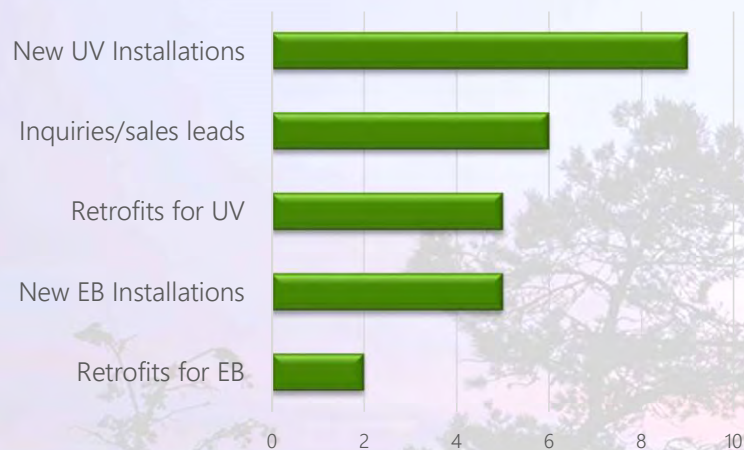
- Cost is the biggest driver
- Environmental is only a secondary driver



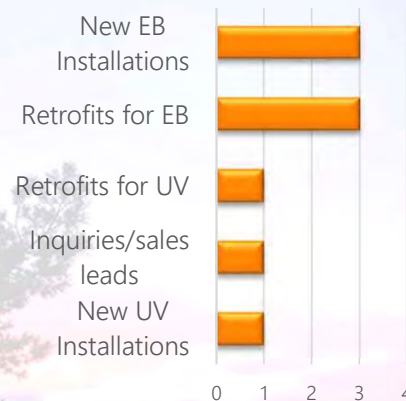
- ✓ Introduction
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# Radtech Market Survey 2019

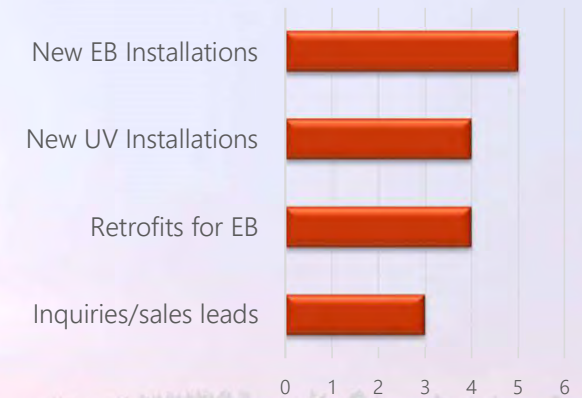
Current Business that is UP



Current Business that is SAME



Current Business that is DOWN



- New UV Installations are seen as most up
- Retrofits are also high on business that are up
- Mixed input for New EB Installations



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# Still no harmonized EU law for inks/coatings

- Framework Regulation (EC) No. 1935/2004
- Regulation (EC) 2023/2006 on Good Manufacturing Practice

➔ Both regulations also apply to non-plastic materials such as e.g. coatings, adhesives and printing inks

- Swiss Ordinance SR 817.023.21
  - Part A: substances *with* an authorized risk assessment (SML)
  - Part B: substances *without* an authorized risk assessment (detection limit: 10 µg/kg food)

➔ Although only valid in Switzerland, it is currently the basis for all compliance work in EU, accepted generally by all players in the value chain for printing inks and OPVs for food contact articles

➔ In absence of a harmonized EU law the country with the strictest legislation acts as the key driver for food contact regulation

- EuPIA Guideline for Printing Inks



## Regulatory news – Europe and beyond

### 1. K-REACH (Korea REACH)

- Pre-registration phase ended in July 2019
- Registration of pre-registered substances ongoing

### 2. KKDIK (Turkey REACH)

- Pre-registration possible until Dec 31 2020
- Registration of pre-registered substances until Dec 31 2023

### 3. EU REACH / UK REACH

- Brexit: similar to REACH with transition period
- Cefic action plan: 102 companies to re-evaluate their chemicals safety data
- Biocide regulation: threshold for H317 Labeling with >15ppm MIT effective May 2020

### 4. Indirect food contact

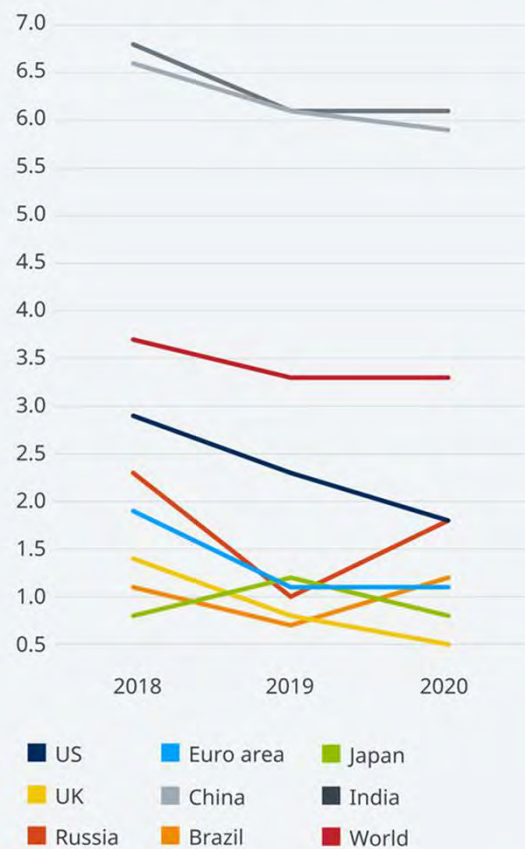
- Update of swiss ordinance list coming up – unknown when
- European list to be published – unknown when

- 
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# Forecast revisions

The Global Economy: GDP growth forecasts as of fall 2019



Source: PIIE

© DW



## GDP growth projections downgraded

### OECD Interim Economic Outlook projections

%, year-on-year. Arrows indicate the direction of revisions since May 2019.

▼ downward by 0.6 pp and more 
 ▼ downward by 0.3 to 0.6 pp 
 ▼ downward by less than 0.3 pp 
 ■ no revision 
 ▲ upward

	2018	2019	2020		2018	2019	2020
World	3.6	2.9 <span style="color: orange;">▼</span>	3.0 <span style="color: orange;">▼</span>	G20	3.8	3.1 <span style="color: orange;">▼</span>	3.2 <span style="color: orange;">▼</span>
Australia	2.7	1.7 <span style="color: red;">▼</span>	2.0 <span style="color: orange;">▼</span>	Argentina	-2.5	-2.7 <span style="color: red;">▼</span>	-1.8 <span style="color: red;">▼</span>
Canada	1.9	1.5 <span style="color: green;">▲</span>	1.6 <span style="color: orange;">▼</span>	Brazil	1.1	0.8 <span style="color: red;">▼</span>	1.7 <span style="color: red;">▼</span>
Euro area	1.9	1.1 <span style="color: orange;">▼</span>	1.0 <span style="color: orange;">▼</span>	China	6.6	6.1 <span style="color: lightorange;">▼</span>	5.7 <span style="color: orange;">▼</span>
Germany	1.5	0.5 <span style="color: orange;">▼</span>	0.6 <span style="color: orange;">▼</span>	India <sup>1</sup>	6.8	5.9 <span style="color: red;">▼</span>	6.3 <span style="color: red;">▼</span>
France	1.7	1.3 <span style="color: grey;">■</span>	1.2 <span style="color: orange;">▼</span>	Indonesia	5.2	5.0 <span style="color: lightorange;">▼</span>	5.0 <span style="color: lightorange;">▼</span>
Italy	0.7	0.0 <span style="color: grey;">■</span>	0.4 <span style="color: orange;">▼</span>	Mexico	2.0	0.5 <span style="color: red;">▼</span>	1.5 <span style="color: orange;">▼</span>
Japan	0.8	1.0 <span style="color: green;">▲</span>	0.6 <span style="color: grey;">■</span>	Russia	2.3	0.9 <span style="color: orange;">▼</span>	1.6 <span style="color: orange;">▼</span>
Korea	2.7	2.1 <span style="color: orange;">▼</span>	2.3 <span style="color: orange;">▼</span>	Saudi Arabia	2.2	1.5 <span style="color: red;">▼</span>	1.5 <span style="color: orange;">▼</span>
United Kingdom	1.4	1.0 <span style="color: orange;">▼</span>	0.9 <span style="color: orange;">▼</span>	South Africa	0.8	0.5 <span style="color: red;">▼</span>	1.1 <span style="color: red;">▼</span>
United States	2.9	2.4 <span style="color: orange;">▼</span>	2.0 <span style="color: orange;">▼</span>	Turkey	2.8	-0.3 <span style="color: green;">▲</span>	1.6 <span style="color: grey;">■</span>

Note: Difference in percentage points based on rounded figures. The European Union is a full member of the G20, but the G20 aggregate only includes countries that are also members in their own right.

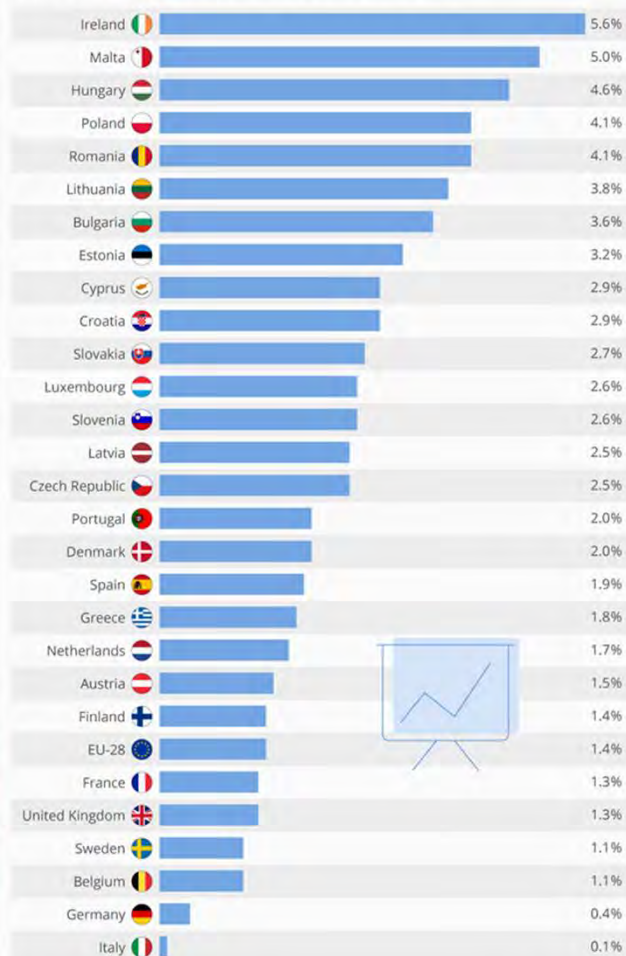
1. Fiscal years starting in April.

Source: OECD Economic Outlook database; and OECD calculations.

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## The EU's Autumn Economic Growth Forecast

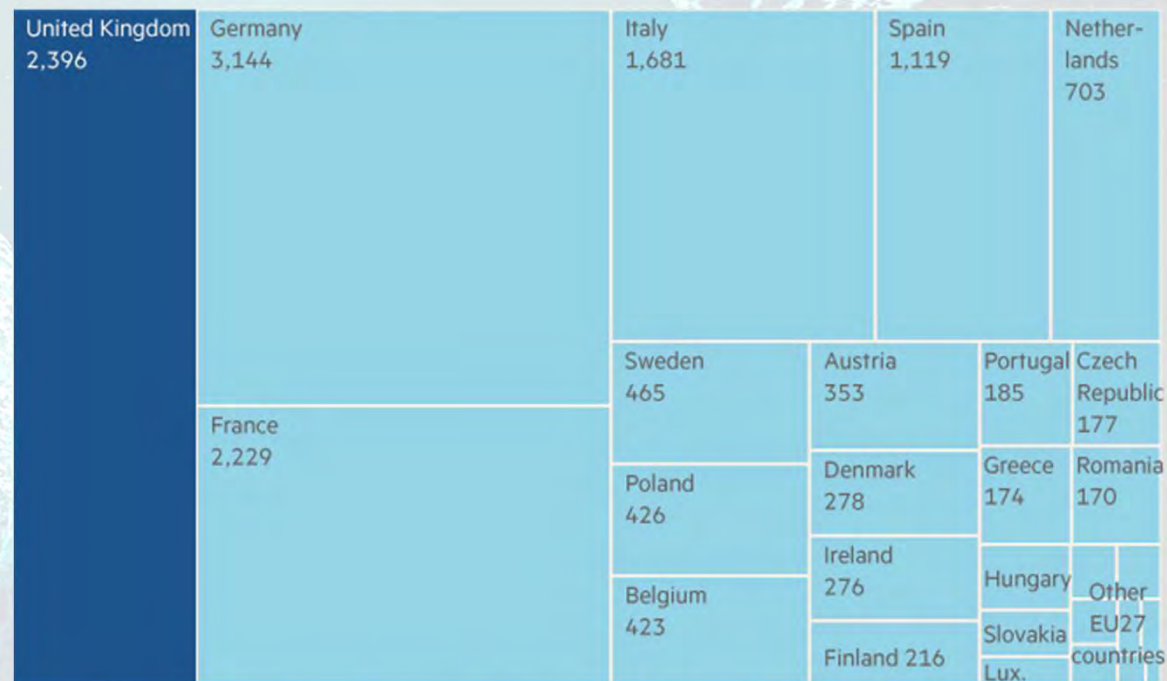
Autumn 2019 GDP growth forecast for the EU (as of Nov 07, 2019)



# Forecast revisions

The EU will lose 16% of its GDP when the UK leaves the union

2016 GDP at market prices (€bn)



Source: Eurostat  
© FT

19 MARCH 2020



## Covid-19

COVID-19 is a disease caused by a specific virus (SAR-CoV-2) and labeled in the press “coronavirus” or “novel coronavirus.”

Much about the disease is not currently known.

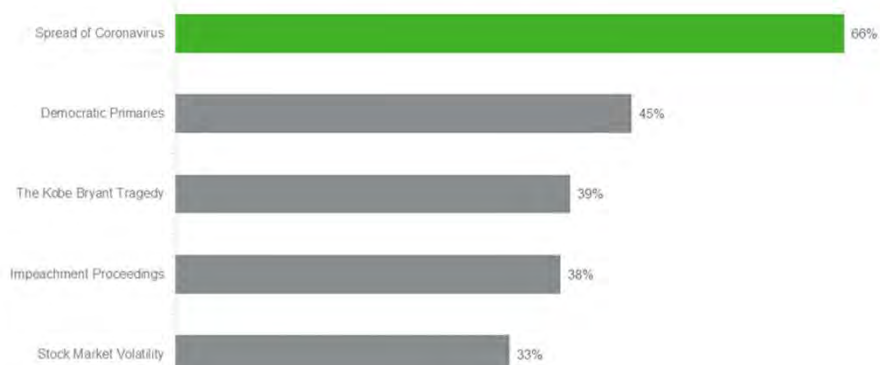
Public reaction could allow the disease to spread more quickly and widely, or it could create unnecessary costs.

Deloitte 3<sup>rd</sup> March

- The COVID-19 epidemic is now growing exponentially.
- Its economic impact is already more severe than SARS or MERS.
- The political consequences are harder to predict, but could be significant and long-lasting.
- Share prices were on track for the worst week since the global financial crisis in 2008 (28/2/20).

World Economic Forum

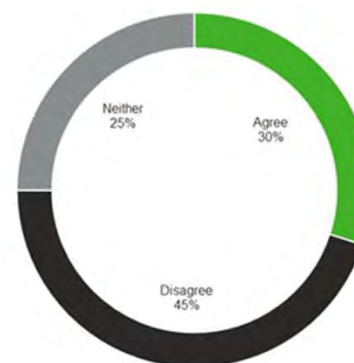
TOP NEWS STORIES FOLLOWED CLOSELY



Source: Technomic COVID-19 Consumer Survey March 2, 2020

© 2020 Technomic, Inc.

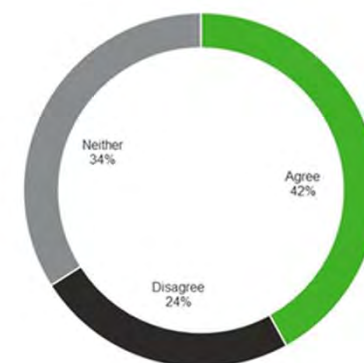
THE CORONA VIRUS NEWS IS BEING  
BLOWN OUT OF PROPORTION



Source: Technomic COVID-19 Consumer Survey March 2, 2020

© 2020 Technomic, Inc.

THE CORONA VIRUS IS A REAL THREAT  
TO ME AND/OR MY FAMILY



- Americans (and Europeans) are somewhat torn on what to think about COVID-19 right now.
- 30% believe that the news is being blown out of proportion,
- 25% don't know what to think about its overall impact.
- 42% believe that COVID-19 is a real threat
- 58% disagree or are unsure.



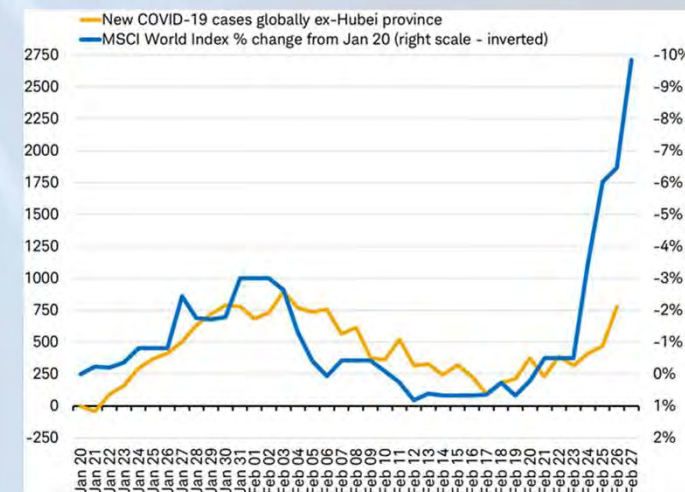
COVID-19 could affect the global economy in three main ways:

- By directly affecting production
- by creating supply chain and market disruption
- by its financial impact on firms and financial markets.

However, a great deal depends on the public's reaction to the disease.

- A severe public reaction could create significant economic costs for manufacturing industries.
- If many countries opt for this type of response, the impact on the global economy could be quite large.

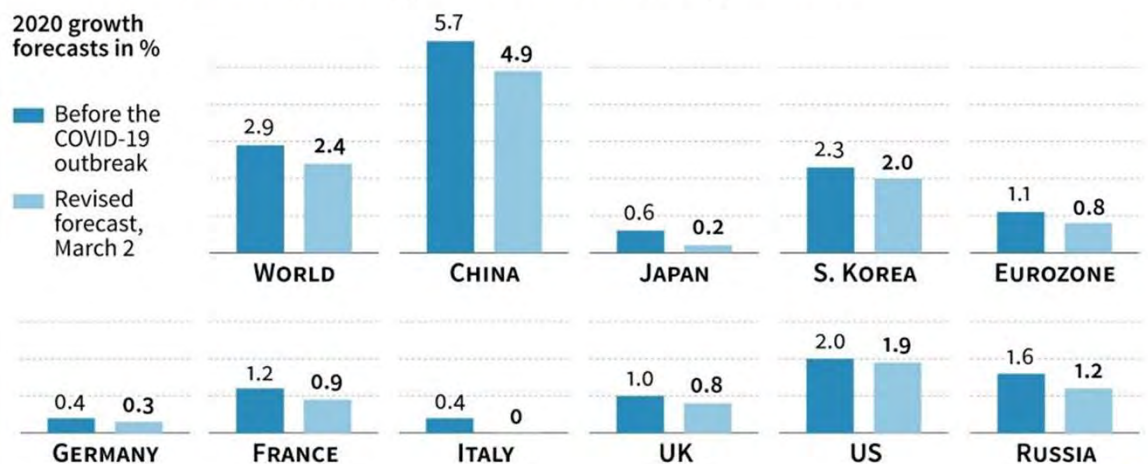
Deloitte 3rd March



## Coronavirus affects global economic growth

2020 growth forecasts in %

■ Before the COVID-19 outbreak  
 ■ Revised forecast, March 2



Source: OECD

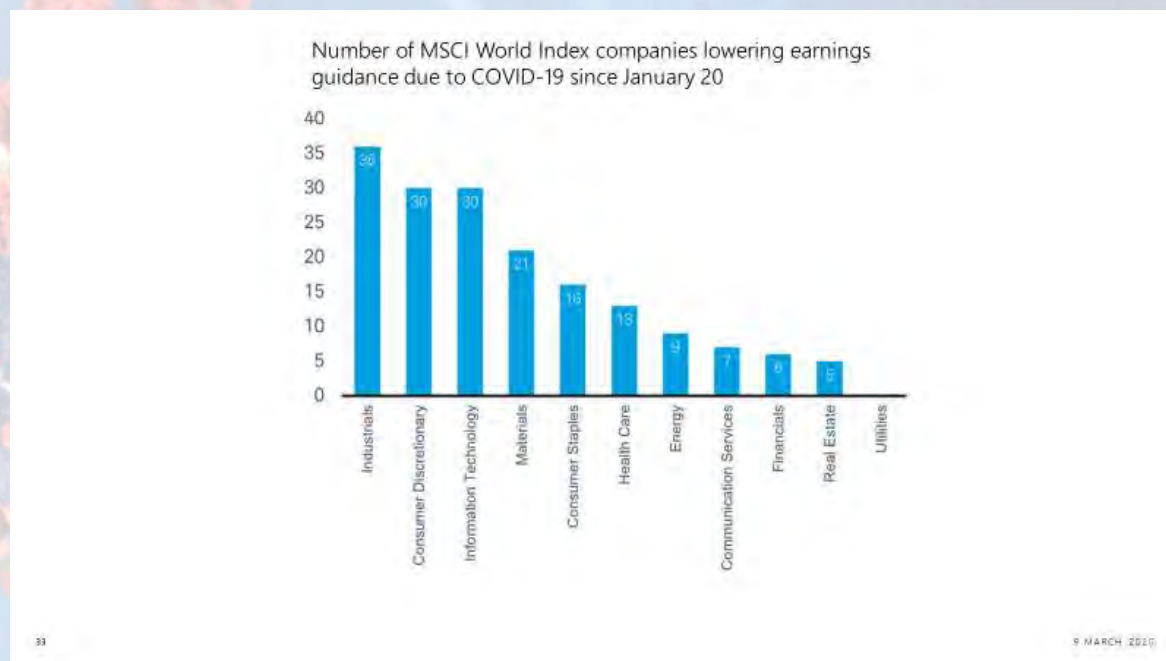
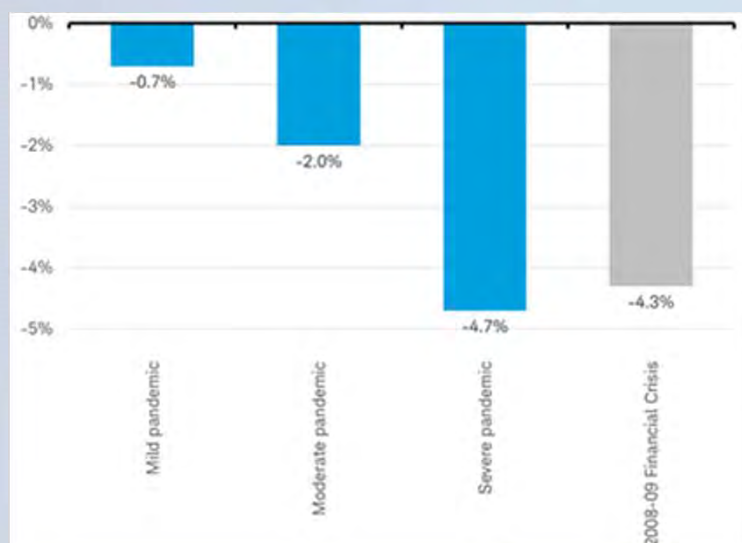
© AFP

Countries ranked by nominal GDP	Stock Market Index	Year-To-Date % Change
1. U.S.	S&P 500	-7.8%
2. China	Shanghai Composite	-1.9%
3. Japan	Nikkei 255	-7.2%
4. Germany	DAX	-6.7%
5. India	SENSEX	-3.7%
6. UK	FTSE 100	-9.9%
7. France	CAC	-8.1%
8. Italy	FTSEMIB	-3.0%
9. Brazil	Ibovespa	-10.9%
10. Canada	S&P TSX	-2.0%

Perhaps the most surprising development in the stock market is that two of the best performing stock markets in the world so far this year are China and Italy, where COVID-19 outbreaks have been focused—reminding us that headlines often don't make for good investment advice.



In the event of a pandemic: mild, moderate and severe potential global GDP impact

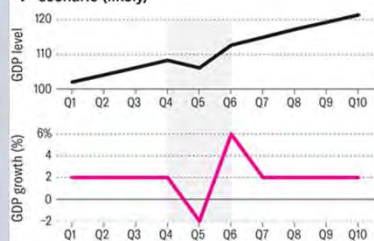


Source: Charles Schwab, Federal Reserve and World Bank data as of 2/27/2020

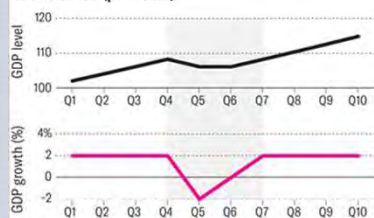
## Economic Shock: 3 Scenarios

A V-shaped scenario depicts a classic economic shock, where growth eventually rebounds. In a U-shaped scenario, there is some permanent loss of output after the initial shock. An L-shaped scenario signals real structural damage, with a significant impact on growth.

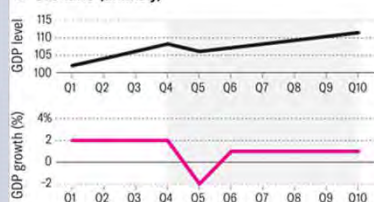
### "V" scenario (likely)



### "U" scenario (plausible)



### "L" scenario (unlikely)



Source: BCG Center for Macroeconomics analysis

© HBR

V-shaped: displacement of output, but growth eventually rebounds. annual growth rates fully absorb the shock.  
(Though it may seem optimistic amid today's gloom, we think it is plausible.)

U-shaped: while the initial growth path is resumed, there is some permanent loss of output.

(Is this plausible for Covid-19? Absolutely, but we'd want to see more evidence of the virus' actual damage to make this the base case.)

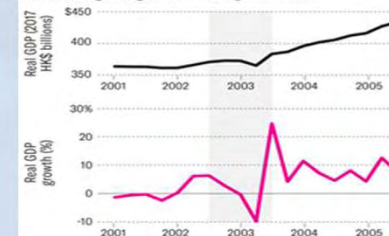
L-shaped: This scenario is very ugly. For this to materialize, Covid-19 must do significant structural damage, (i.e. breaking the labor market, capital formation, or the productivity function).  
(This is difficult to imagine even with pessimistic assumptions.)

At some point we will be on the other side of this epidemic.

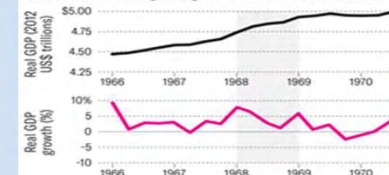
Harvard Business Review 3<sup>rd</sup> March

## Prior Epidemics Were All V-Shaped

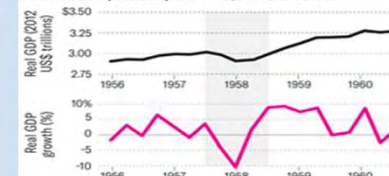
### 2002 Hong Kong SARS – 286 global deaths



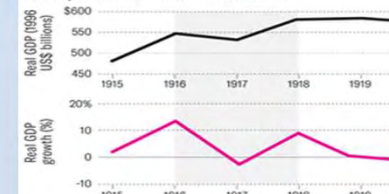
### 1968 H3N2 ("Hong Kong") flu – 100,000 U.S. deaths



### 1958 H2N2 ("Asian") flu – 116,000 U.S. deaths



### 1918 Spanish flu – 675,000 U.S. deaths



Note: Real GDP growth is quarterly except for 1918, when it's yearly.  
Source: U.S. Census Bureau, BEA, CDC, Census and Statistics Department (Hong Kong), BCG Center for Macroeconomics analysis © HBR



# Conclusions????

## Slide 29

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**PDM9** I would change the color of the title to white to have it pop out more  
Pieter De Maeght, 09/10/2019



Thank you!