Fight against SARS-Cov-2
Overview of mRNA Vaccine Development and Resource Need

European Commission

Overview of Covid-19 measures

- Lock down, with massive impact on European economies
  - Monthly GDP impact in Europe of €75bn – or a 3.70% projected GDP decline by
- Masks
- Diagnostics:
  - PCR
  - tests

  } *But with limitations*
- Treatments:
  - Early treatments to reduce transmission and virus progression
  - Treatment of severe cases

Are Vaccines are the ultimate solutions? YES, the virus is in humans
=> need for 80% - 90% coverage

mRNA, the big promise in the vaccine space

- **Protein and adjuvant**
  - GSK and Sanofi
  - Classic / historic technology

  } *Limitations: production of antigens*
- **Live vectors**
  - J&J, promising technology but complex. $1b from BARDA
- **DNA vaccines:**
  - Promising technology, yet unknown
- **mRNA:**
  - Moderna: $483m from BARDA
  - BioNTech: Financed by Pfizer
  - TranslateBio: Financed by Sanofi
  - **CureVac: many years of Vaccine experience and great 2x1 microgram immunity in Rabies**

Initial investment in technology and clinical development

Cost of building capacity in billions of doses

[redacted]

Location	[redacted]
Use	
Availability	

Funding purpose and needs

- [redacted]
- [redacted]

[redacted]

Timing of major inflection points

Manufacturing at risk in [redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

- [redacted]

Overview of [redacted] - indicative

Funding instruments

Conclusion

mRNA is a promising technology

Bill Gates said *„investment at risk by government is critical"*

Large scale manufacturing is feasible

For the flu pandemic in 2010, Governments had invested at risk over €10bn

Loss GDP amounts to €100s of billions

SARS-Cov-2 is a worldwide challenge