PRIVATE-SECTOR PERSPECTIVES ON IMPROVING THE SOCIO-ECONOMIC IMPACT OF WEATHER DATA

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Workshop on improving the socio-economic impact of NWP data

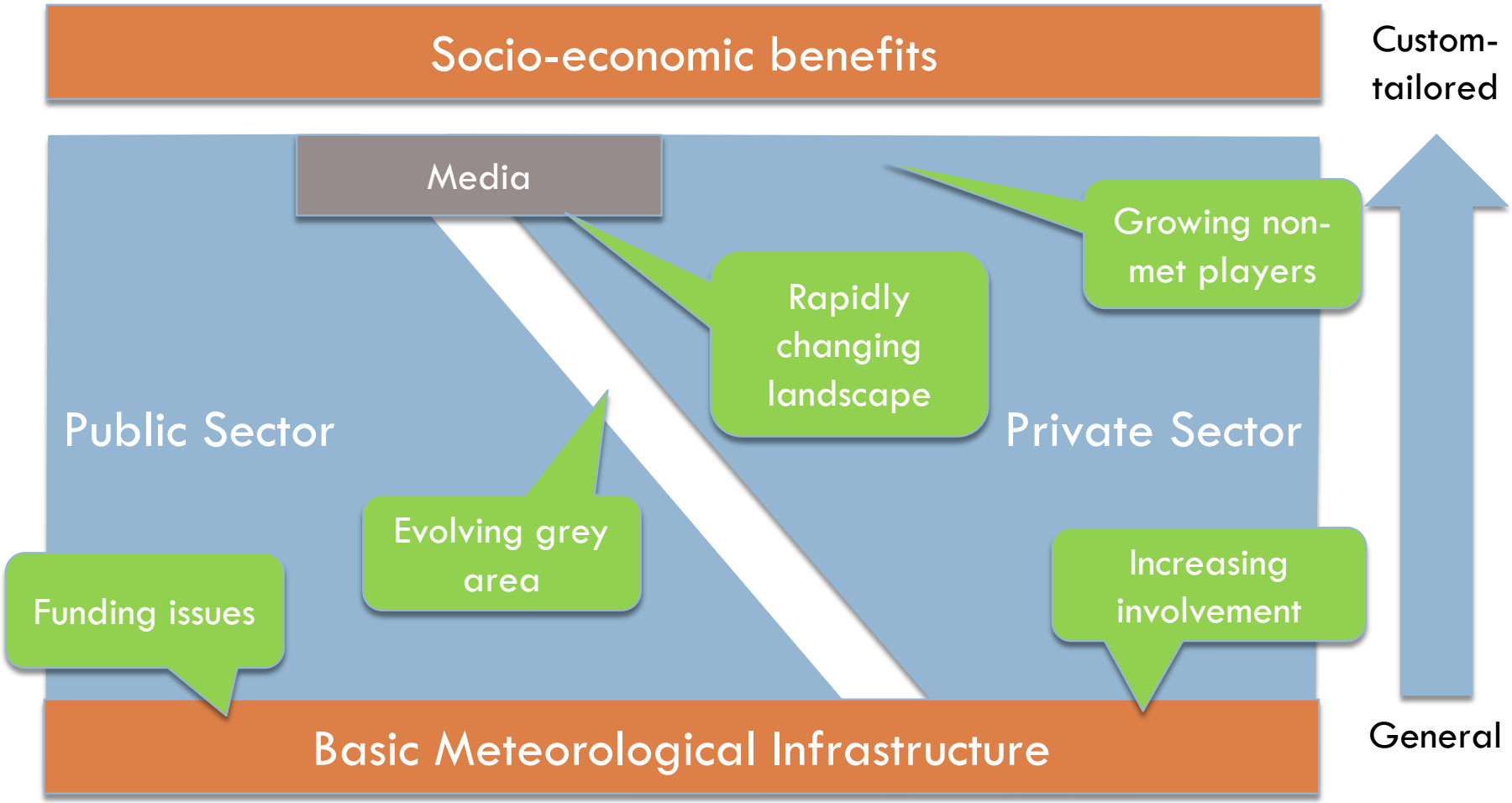
Agenda

- Introduction to PRIMET
- Role of the private sector
- Improving the socio-economic impact
  - Open data
  - Distribution and cloud computing
- Conclusions

PRIMET

- Private sector forum in Europe first established in 1990‘s
- PRIMET founded in 2007, incorprated 2010
- Currently represents 37 companies in 19 different countries
- Observer status at WMO
- Regular meetings with ECOMET, EUMETNET, ECMWF and others
- Focussed on ensuring a level-playing field in the meteorological services market
- Aims to improve collaboration between Public and Private stakeholders - for the benefit of Society

Role of the private sector



Public-Private sector relationship

- The Private sector is now a key player in delivering the full value of NWP data generated by the Public sector.
- Private sector weather businesses are able to adapt quickly to new scientific & technical developments and new market demands.
- Public sector organisations change slowly and must respond to political pressures as well as market needs.
- Anything which inhibits the flow of NWP data from the Public to Private sector diminishes the potential economic benefits to society.

Impact of the private sector

- Providing weather information in a large variety of flavors to the media & the public (Web, Apps)
- Most ships are nowadays routed by private sector software & services
- Energy sourcing (oil & gas), generation (renewables), distribution (grid) are serviced to a large extent by private weather services
- Transport on road and rail often relies on consultancy from the private sector (air to come?)
- **All of the above would not be possible without the (supra-) national meteorological services & their public funding!**

Improving the socio-economic impact

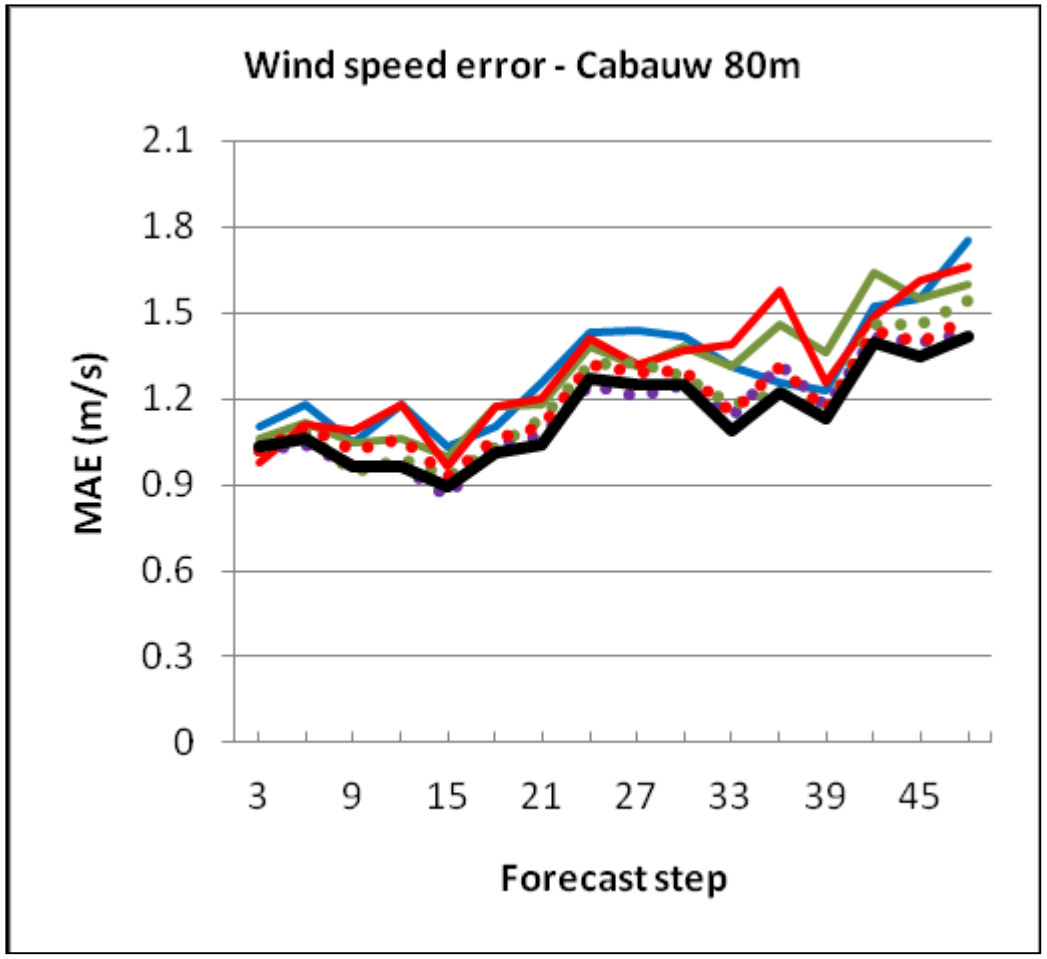
- Barriers to new, innovative start-ups
  - Data costs, complex pricing
  - Tax-funded competition
- Opportunities for new services
  - Improved forecast accuracy
  - Combination of different meteorological and non-meteorological data sets
  - Ad hoc scalable computing resources
  - Public-Private collaboration

Improving the socio-economic impact: Open Data

- To reach the maximum price at ECMWF it needs*)
  - 39 fields HRES or
  - 14 fields ENS
- while the catalogue has 126 single-level parameter and 15 parameters on 137 model levels and …
- Opportunities for improvement:
  - Best option: Open data!
  - 2nd best option: Pricing based on data volume (GB)
  - 3rd best option: Adjust price per EPU

*) http://www.ecmwf.int/en/forecasts/accessing-forecasts/payment-rules-and-options/tariffs-examples

Improving the socio-economic impact: Combination of data sets

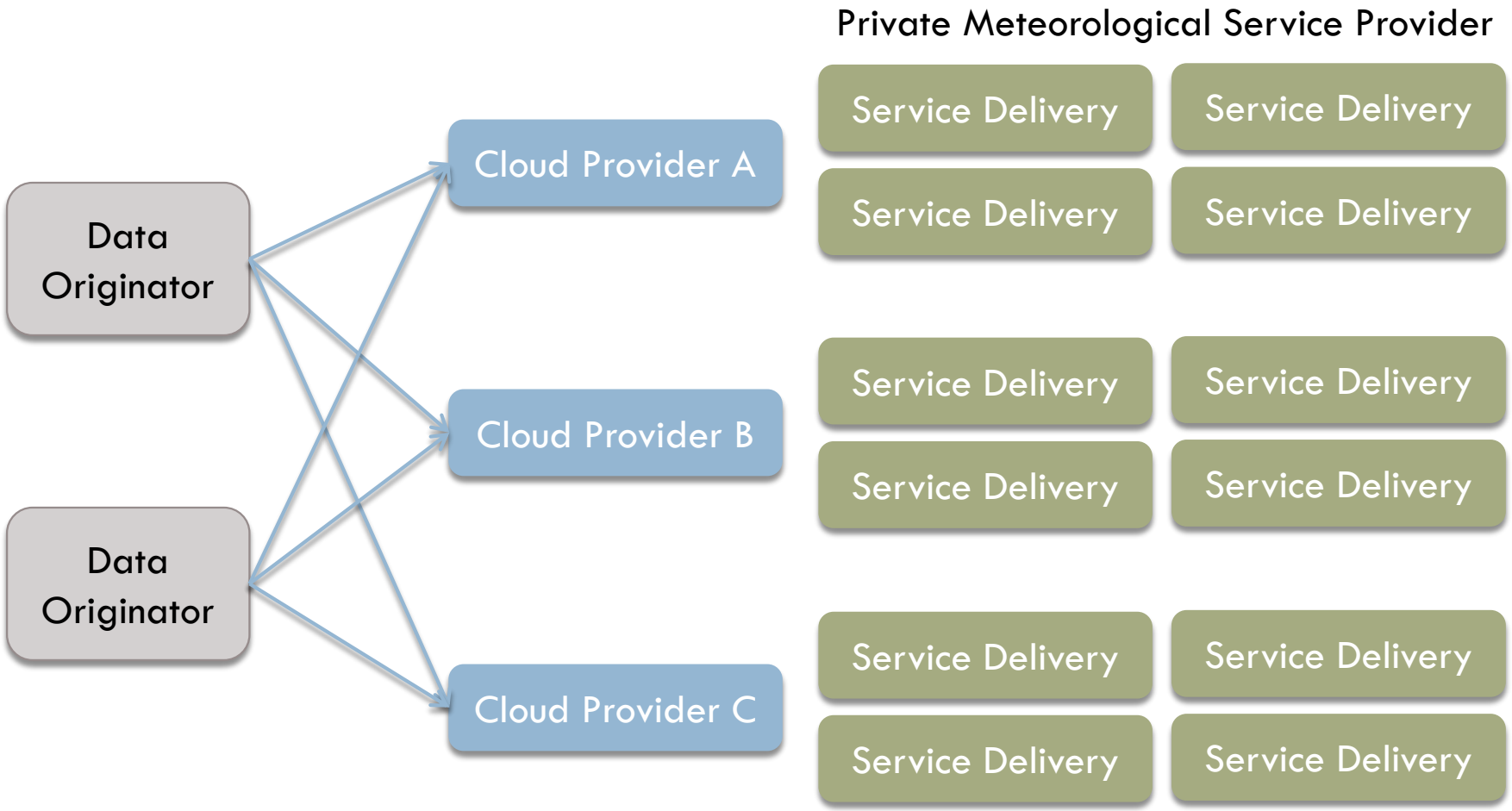


Verification of model mixing compared to single model output.

- Black is three models
- Dotted is two models
- Solid is one model

Source: MeteoGroup

Improving the socio-economic impact: New distribution opportunities



Conclusions

- Public-Private collaboration essential for exploiting full benefit of meteorological services
- Barriers for innovative new entrants must be removed
  - Open data
  - An end to taxpayer-funded competition
- Distribution & computing scheme must facilitate combination of different data
- Cloud computing will accelerate big data distribution

Thank you

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