



The Shape of Things to Come:

Ex-Ante Assessment of the Economic Impact of Horizon Europe

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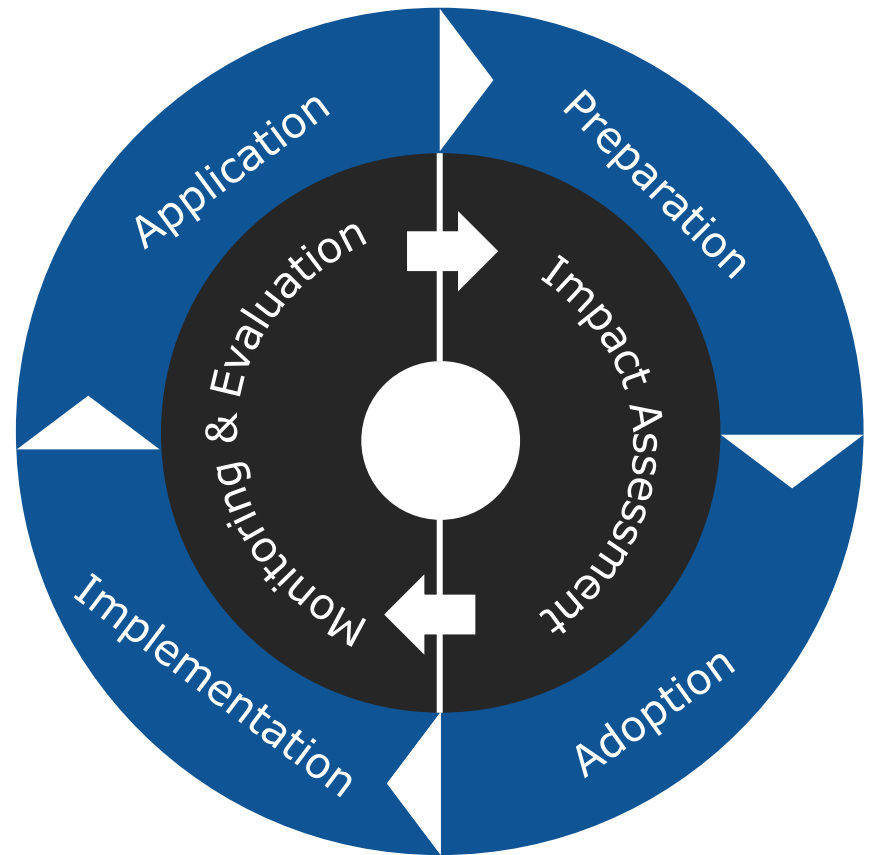
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Horizon Europe

- Successor of Horizon 2020
- Evolution not revolution
- Proposal of the Commission: June 2018
Accompanied by an impact assessment
- More impact, more openness: European Innovation Council, mission orientation, strengthened international cooperation, reinforced open science, new approach to partnerships

Assessing the economic impact of the EU Framework Programme (I)

- Very large and complex programme
- First impact assessment: FP7 (Muldur et al., 2006)
- Impact assessment of Horizon 2020 (EC, 2013)
- Interim evaluation of Horizon 2020 (EC, 2017)



Assessing the economic impact of the EU Framework Programme (II)

- General consensus that R&I are decisive in fostering productivity growth (Hall et al. 2009, EC, 2017)
- Challenging to put a precise figure on it
- Macroeconomic modelling can help for this
- This paper: economic impact
- However: several impact pathways for Horizon Europe (Bruno & Kadunc, 2018)

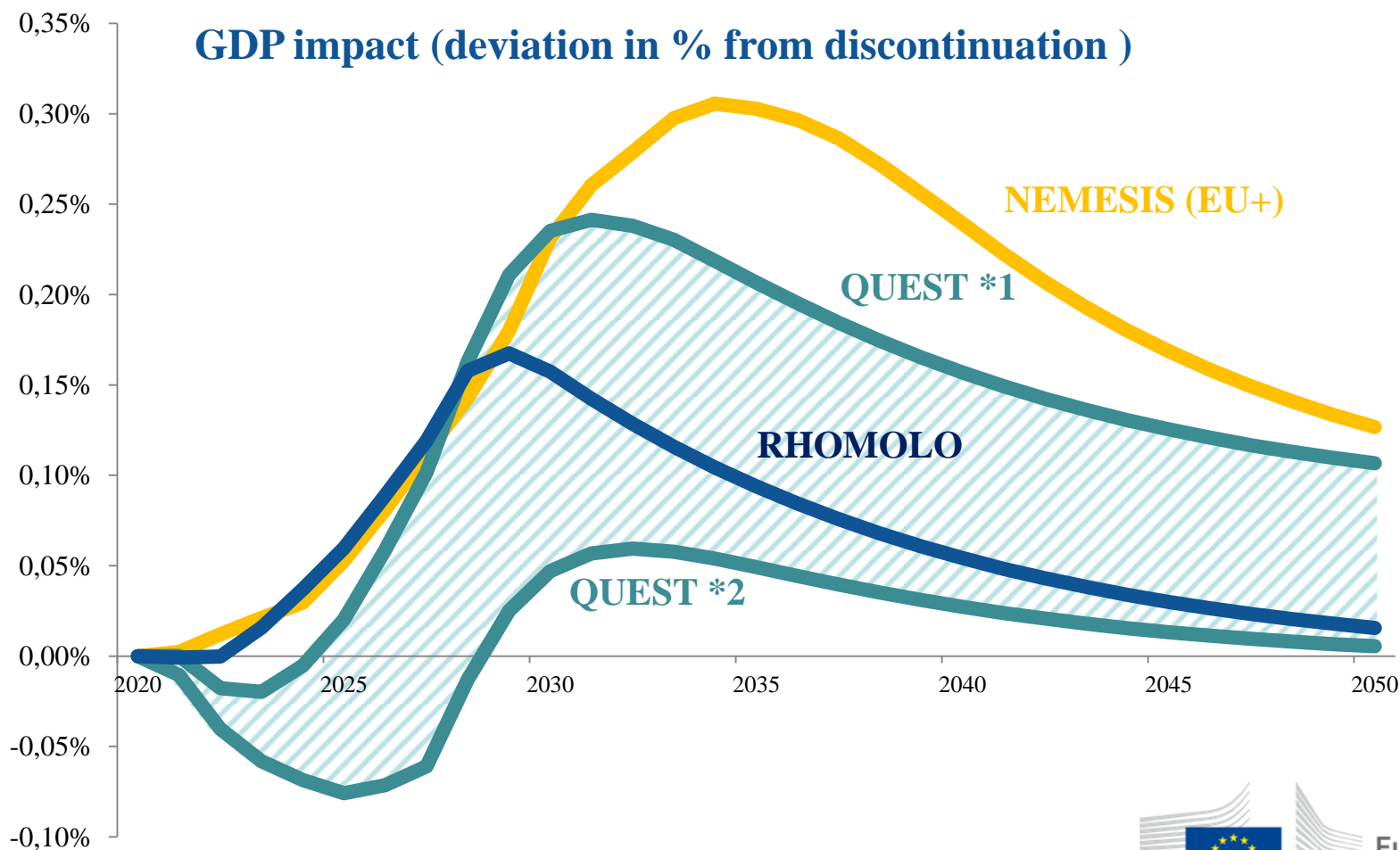
Assessing the economic impact of the EU Framework Programme (III)

- Various macroeconomic models are available, including



- Close collaboration between EC and modellers
- Need to tailor the models to the FP

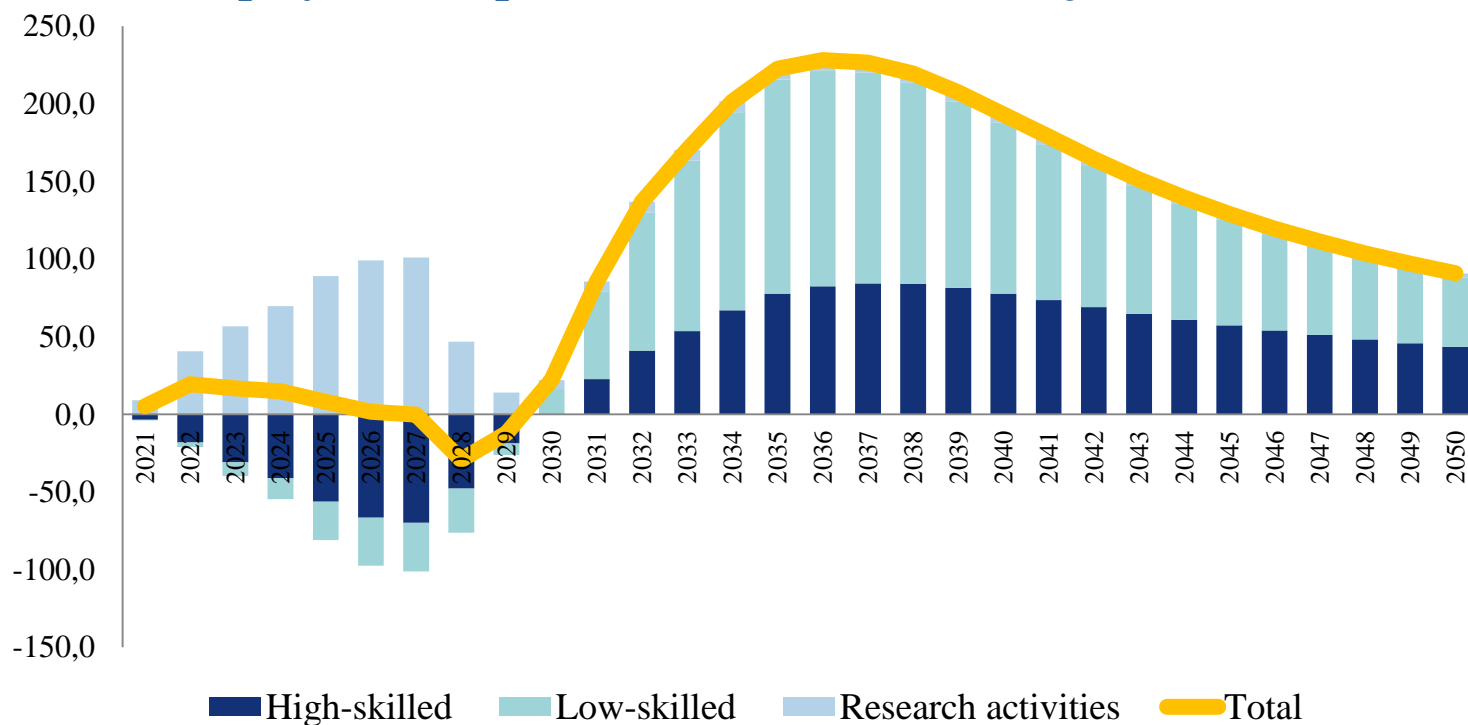
How much is the continuation of Horizon 2020 worth (baseline)?



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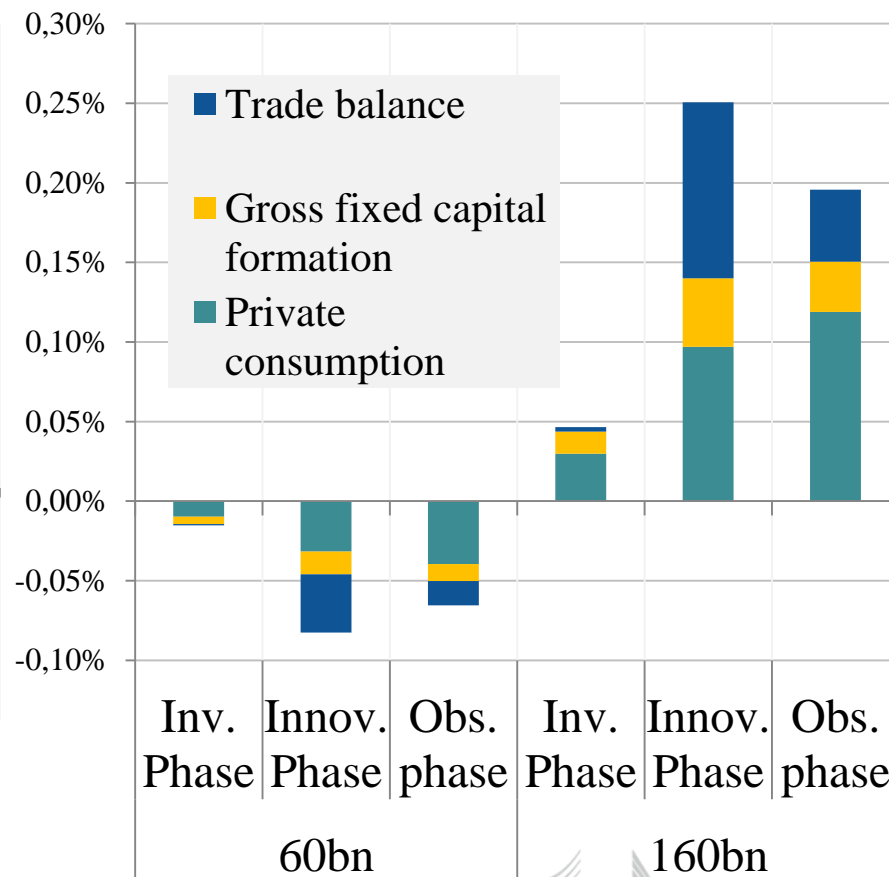
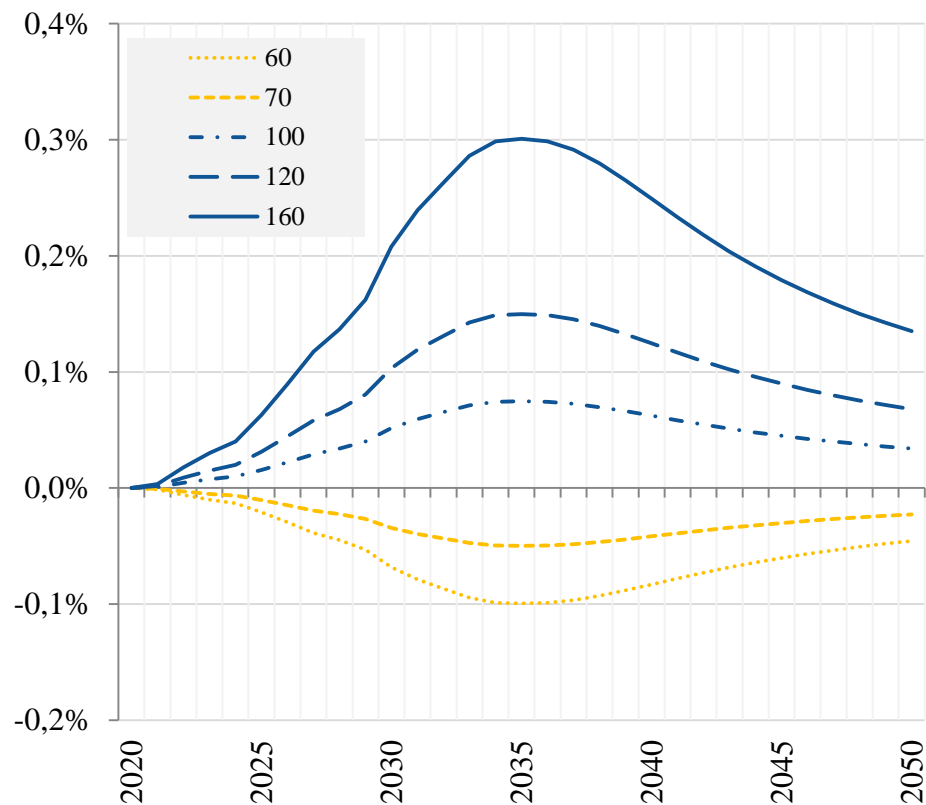
(II)

Employment impact (deviation in thousand jobs from discontinuation)



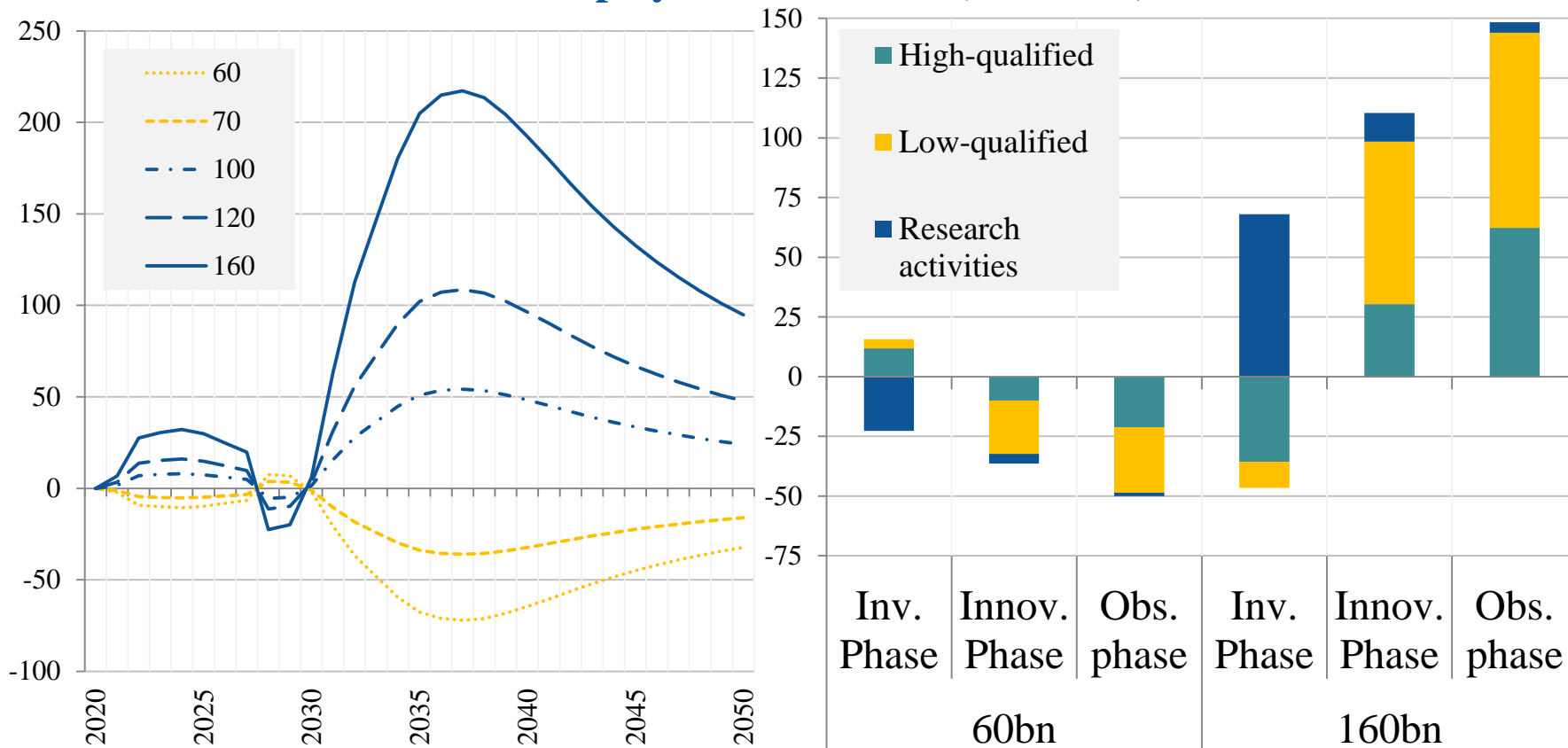
Assessing options: budget

GDP deviation



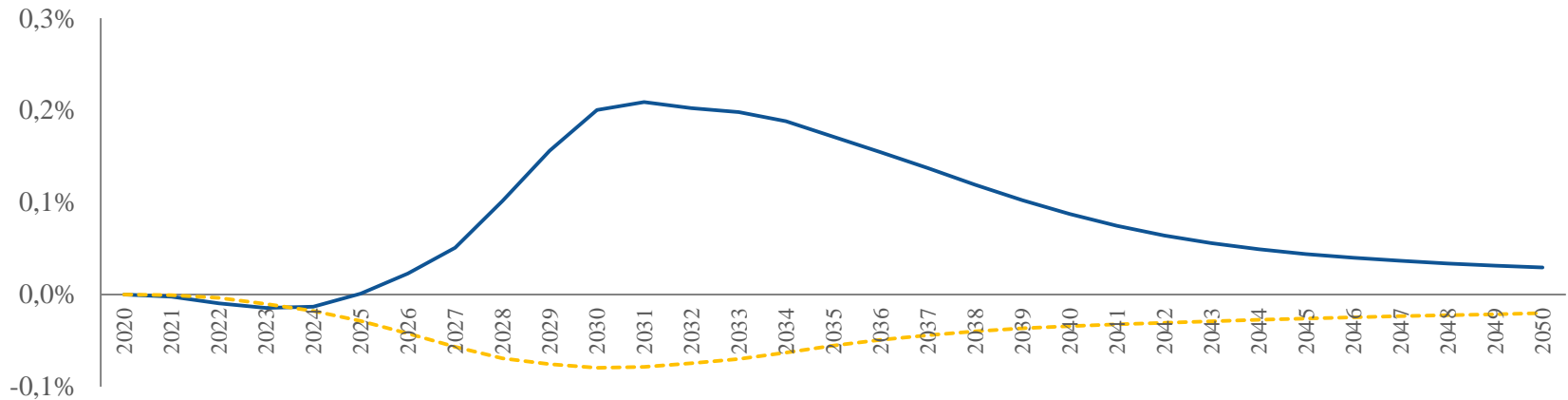
Assessing options: budget

Employment deviation (thousand)

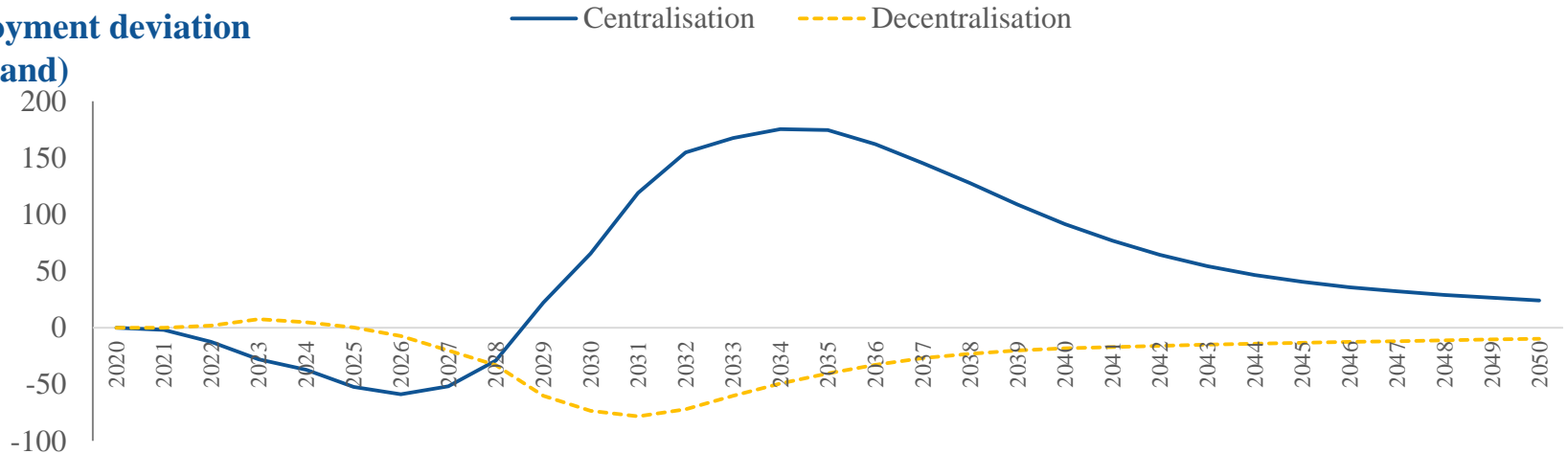


Assessing options: (de)centralisation

GDP deviation

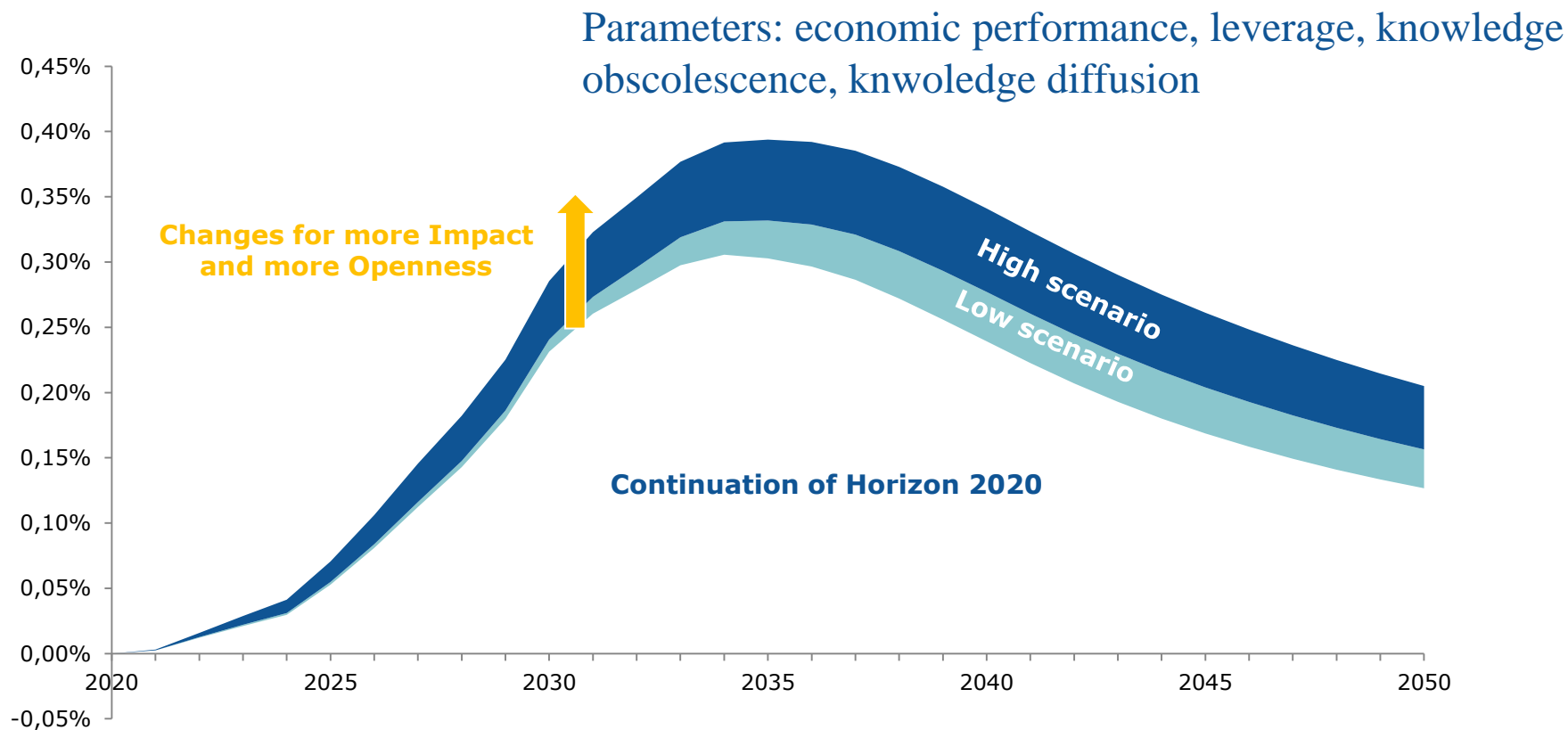


Employment deviation (thousand)



Sensitivity analysis on leverage and performance: performance at EU level is a key assumption here

Assessing options: design



Combined with 100bn option, up to:

- GDP +1100 bn over 25 years
- Employment: + 140k researchers in inv.period, +340k after

Conclusion

- *Triangulation of models: consistency of pattern and sign*
- *Size of impact relies on specificities and assumptions*
- *Importance of assumptions (leverage and performance) and financing mode in the models*
- *Translation of policy options to model adjustment requires close collaboration between modellers and policymakers*