

Picking the low-hanging fruit now rather than later

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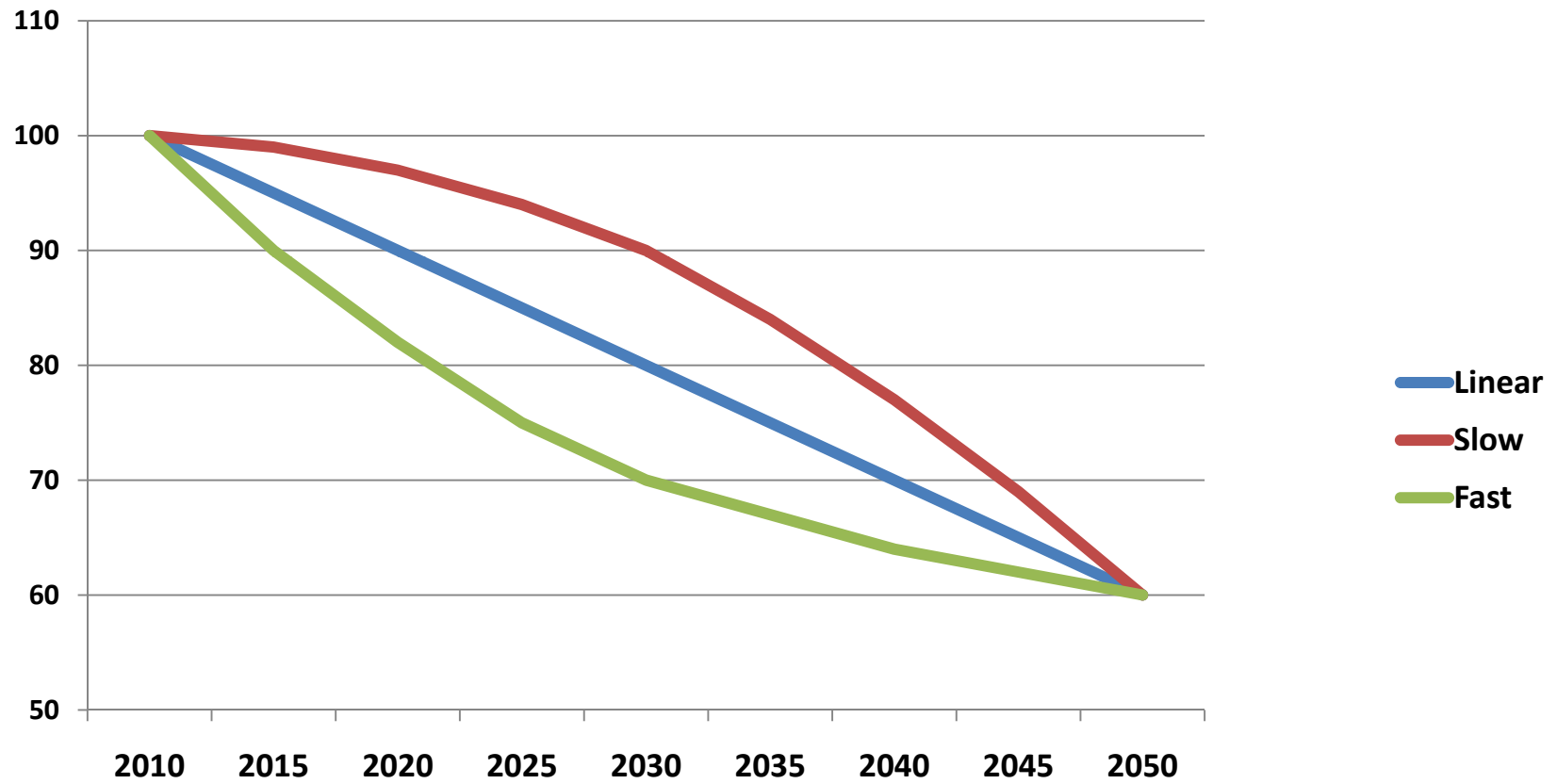
What is the climate change objective?

- Is it meeting certain reduction targets for 2020, 2030 and 2050?
- Or is it rather to keep GHG concentrations below the level required for preventing the average global temperature from exceeding its pre-industrial level by more than 2 degrees Celsius?

The real task

- Avoiding short-term emissions will help the world reach the real objective
- Particularly important in this context is to:
 - avoid deforestation and biofuel production land-use change which cause GHG emissions that take many years to offset
 - avoid infrastructure investment with large embedded emissions that take decades to offset
 - make early use of low-hanging fruit

Huge difference over time



Example from building construction

- Concrete (cement) and steel give rise to large emissions of GHG
- Using wood as construction material means creating a carbon sink
- Apartment buildings can be built in wood in up to six or seven stories (in a fire-safe manner)

Example from new infrastructure

- Construction of a high-speed rail way line may emit several million ton CO₂
- Based on emission data from Network Rail (UK), for a line with 10% tunnels, it takes between 8 and 15 million annual one-way trips to offset construction emissions (as a 50 year carbon annuity), depending on assumptions concerning, in particular, marginal electricity production and the degree of shift from aviation to rail

This might work better

- Up-grading existing lines for higher speed (however, all else equal, energy consumption increases with the square of speed)
- Making minor investment in measures that allow better use of existing infrastructure
- Raising track fees to check the WTP among users (congestion charging)
- Full cost internalization of aviation externalities

Low-hanging fruit (I)

- In most of Europe articulated vehicles (truck + semi-trailer) and roadtrains (truck + trailer) are not allowed to travel faster than 80 km/h, but speed-limiters are set at 89 km/h
- The difference between 80 and 89 km/h is huge in terms of energy consumed. May for EU27 correspond to 20 Mt CO₂ annually
- Regulate that new HDVs should be delivered with speed-limiters set at 80 km/h and require owners of pre-existing trucks to change the limiter to a maximum of 80 km/h

Low-hanging fruit (II)

- Benefits of eco-driving have often been temporary as drivers return to bad habits.
- Methods exist for monitoring the driving style of individual drivers to maintain the effect
- A few hauliers and bus companies use them and claim substantial emission reductions and significantly lower maintenance costs and less vehicle damage
- Demands in procurement of public transport and distribution services may be the way to go

Low-hanging fruit (III)

- Lowering speed limits, where they are high, and improving speed limit enforcement
- Saves energy and human lives
- Particularly important to convince Germany to introduce an upper limit on the autobahn
- Free speed in Germany is used as an excuse to make cars with top-speeds above 200 km/h
- Such cars need larger engines, stronger suspension and tires, and consume more fuel

Low-hanging fruit (IV)

- Better parking policies in medium to large cities and congestion pricing in metropolitan areas would almost instantly contribute to more livable cities
- Emissions will be cut as a result of less car traffic and because less energy is required to move a car in free-flowing traffic
- Public transport buses will no longer risk getting stuck in traffic jams

Additional examples

- Working at home or at neighborhood office floors
- Making optimum use of web meetings
- Reduced rolling-resistance of better tires
- VAT on intra-European flight tickets
- Remove subsidies that increase travel demand or the appetite for large company cars

Why isn't lowing fruit being picked?

- Split incentives
- Low energy cost (percentagewise)
- Contra-productive subsidies
- Relatively high transaction costs (assessment, information, education, regulation)
- Lack of political will
- Resistance from special interests

Conclusion

Making use in the near future of low-hanging carbon fruit in the European transport sector may at negative or low cost save the atmosphere approx. 2 billion ton CO₂ accumulated by 2050 compared to waiting to take action!

And much more compared to never picking them!



**Thanks for your
attention!**

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