The KPP list of pros and cons:

- PROS
 - coding adjoint is easy ("replace t with -t")
 - easier to maintain
   - chemistry mechanism is more readable, and self-documented
   - easier to modify/update
     - which means easier to keep C-IFS and standalone TM5-MP in sync
 - more robust: unbalance chemistry is not possible (EBI continues silently)
 - choice of solvers, incl. Runge-Kutta order 5, which can provide a reference solution when used with tight tolerances.
 - already used in C-IFS: eases up implementation in TM5-MP

- CON:
 up to 2-3 times slower than EBI (as reported by V. Huijnen and G. Fanourgakis): this is in no way prohibitive, but means that EBI should remain as an option for now

 Note that handling heterogeneous chemistry is not a problem according to Vincent. You just have to define it as a reaction, and get the rate to deal with it along the others gaseous reactions.

- RECOMMENDATION FOR TM5

 - implement the KPP interface in TM5-MP at least for CBM5. That must include a merging between C-IFS and current TM5-MP mechanisms. They should be on the same page. Having it already in C-IFS should speed up its implementation in TM5-MP.
 - as mentioned above, EBI should remain as an option