World Oil Outlook

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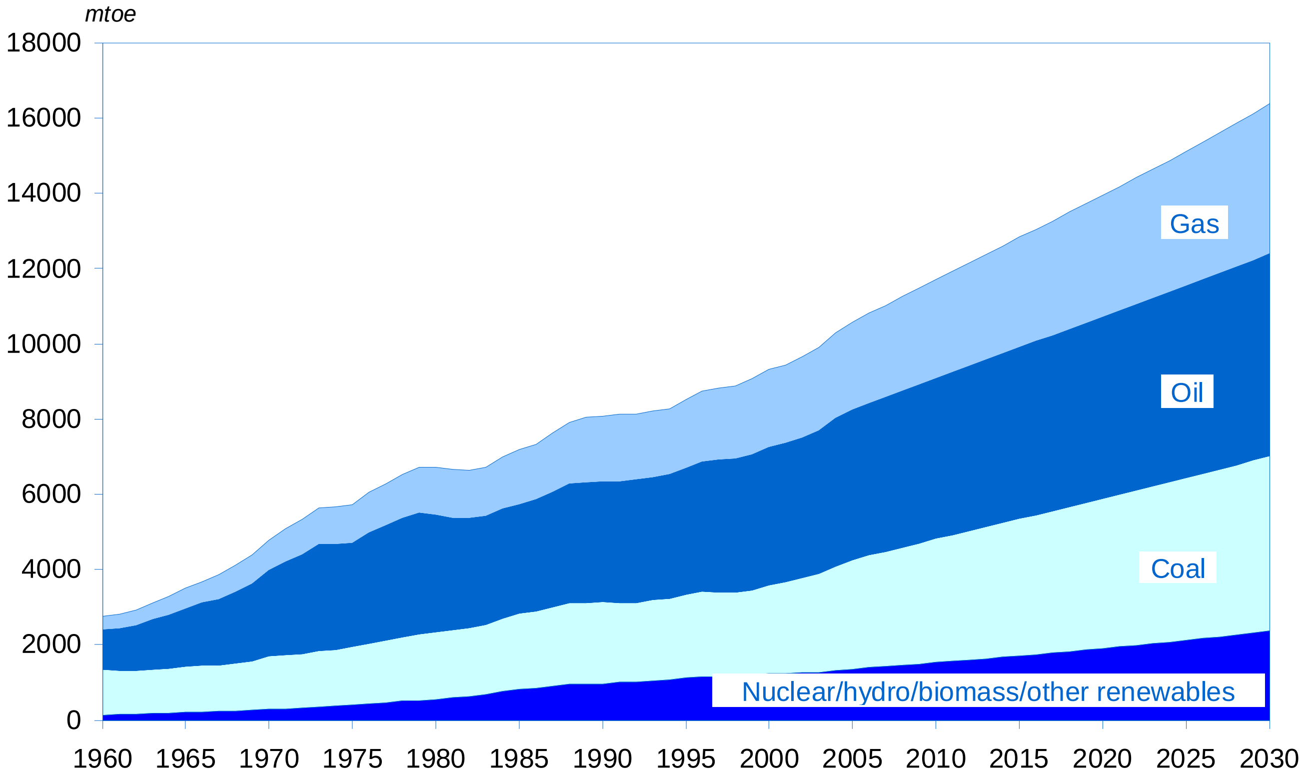
The current price environment

- **Recent increases in most commodity prices**
  - Coal and uranium prices have risen even faster
- **Low oil prices of the 80s and 90s led to lower investments**
- **But there has been no shortage of oil**
  - OPEC spare capacity has played a critical role in ensuring that oil markets remained well supplied
  - OPEC has increased its crude supply by 4 mb/d since 2003
  - OECD commercial oil stocks at comfortable levels
- **Other drivers than supply-demand fundamentals are at play**

The other drivers

- The sharp fall in the value of the dollar
- Dramatic rise of activity in oil futures, over-the-counter markets, index trading and derivatives
- The proper functioning of oil markets has been altered by unlimited and undetected speculation
- Rapidly rising upstream costs and shortage in skilled labour

World supply of primary energy by fuel type



- Energy demand set to grow
- Fossil fuels >85% of commercial energy needs
- Strong coal growth, oil continues with greatest share
- Low base for renewables – limited impact on mix

World oil demand outlook in the reference case (mb/d)

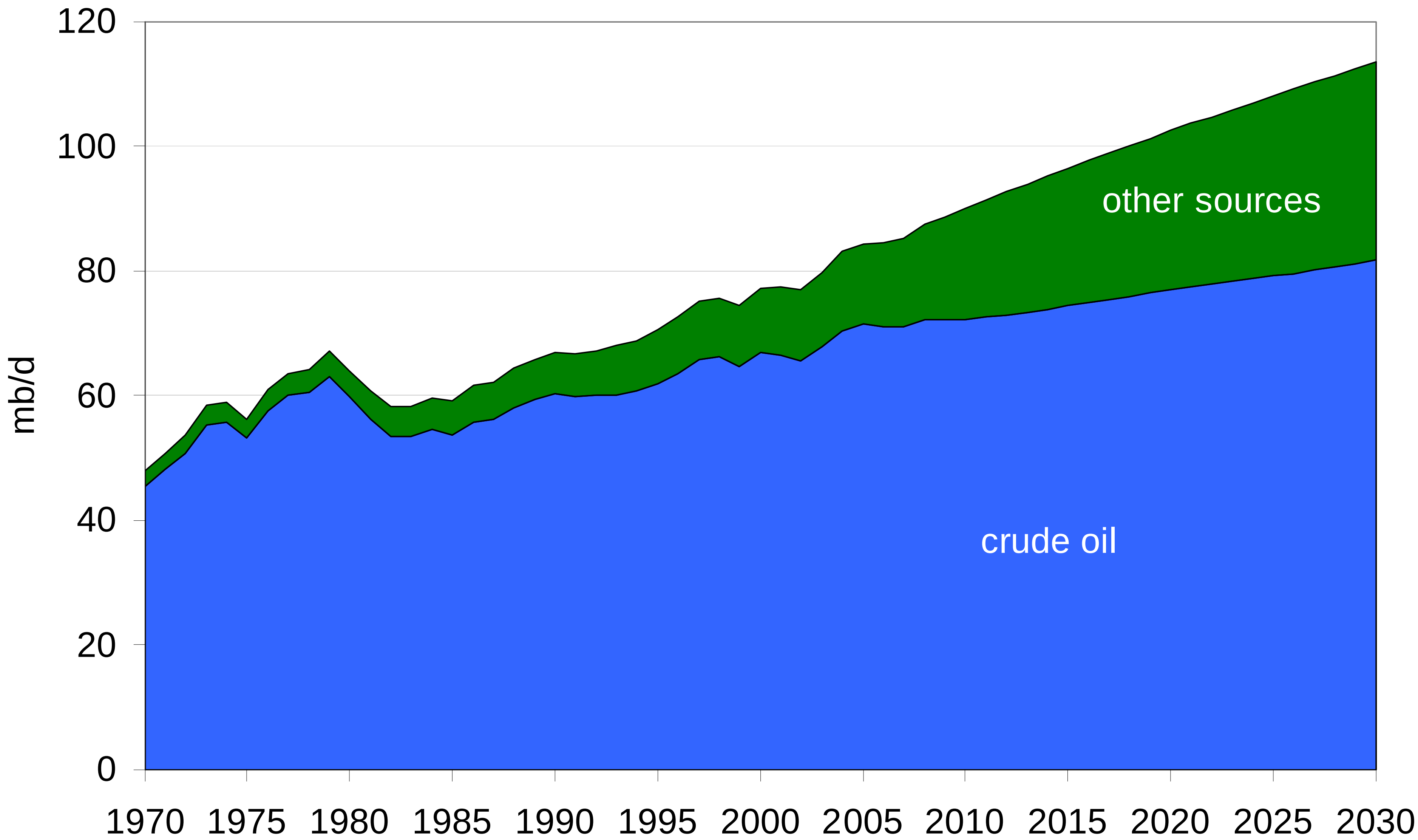
	2006	2012	2015	2020	2025	2030
OECD	49.4	50.4	50.9	51.4	51.6	51.5
DCs	30.4	36.8	40.0	45.3	50.6	56.2
Transition economies	4.8	5.2	5.3	5.5	5.6	5.7
World	84.7	92.3	96.1	102.2	107.7	113.3

- **Oil demand grows by 1.3 mb/d annually in the medium-term, and 1.2 mb/d in the longer term**
- **Developing countries' consumption almost doubles, accounts for 90% of global increase**
- **However, by 2030, developing countries still consume five times less oil per person compared with OECD region**

World oil supply outlook, reference case (mb/d)

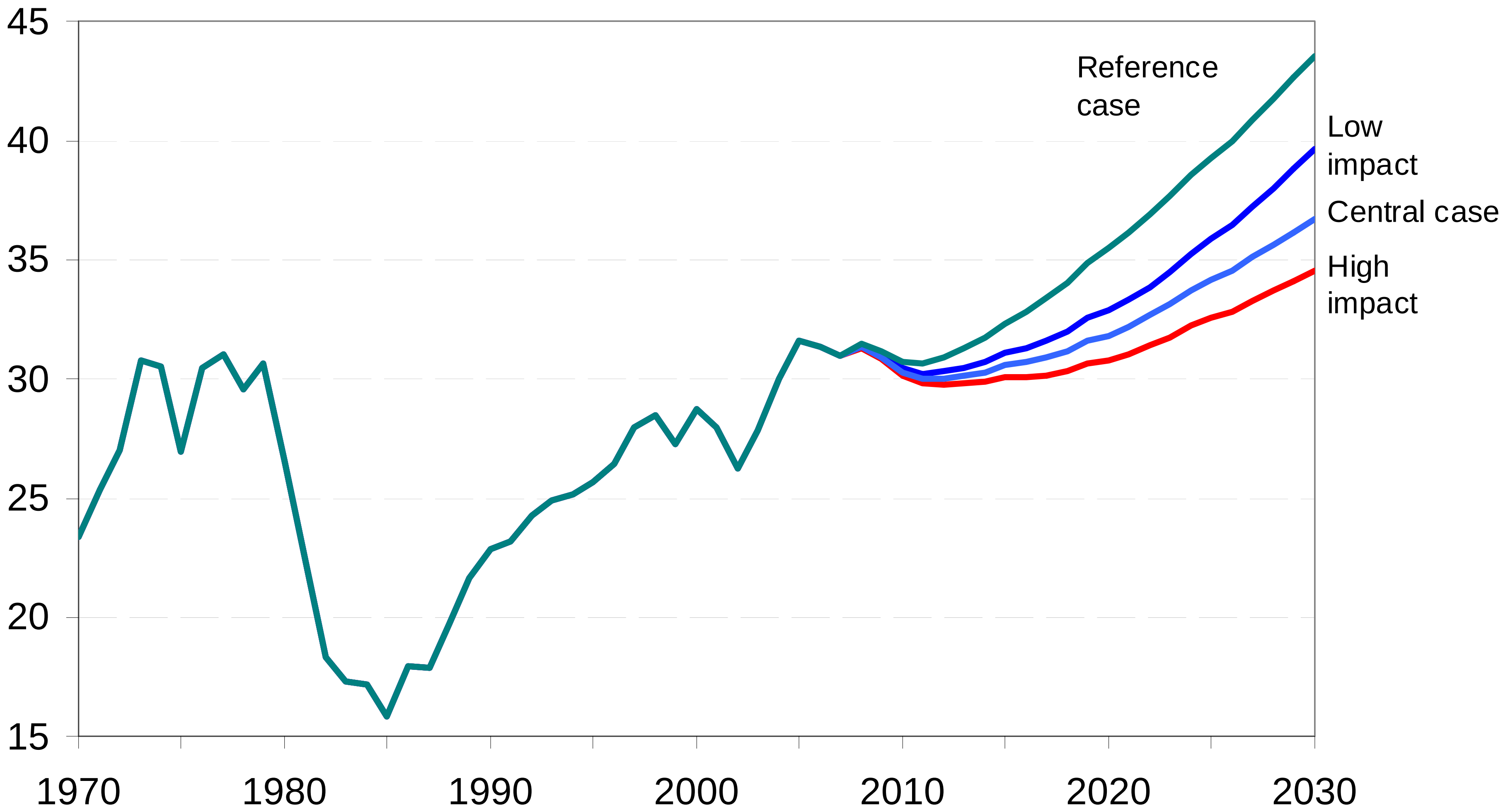
	2006	*2012*	*2015*	*2020*	*2025*	*2030*
OECD	20.2	21.0	21.6	21.5	21.5	21.5
DCs, excl. OPEC	14.7	16.8	17.2	18.4	18.8	18.6
Russia	9.7	11.0	11.5	11.7	11.7	11.7
Caspian and other FSU	2.4	3.9	4.2	4.6	4.9	5.3
Non-OPEC	**49.0**	**55.1**	**57.0**	**58.9**	**59.9**	**60.3**
of which: non-conventional	*2.5*	*4.6*	*5.9*	*7.7*	*9.5*	*10.9*
OPEC (incl. NGLs)	**35.6**	**37.6**	**39.5**	**43.5**	**48.2**	**53.4**
OPEC NGLs/non-conventional	*4.1*	*6.6*	*7.2*	*8.0*	*8.9*	*9.8*
OPEC crude	***31.6***	***30.9***	***32.3***	***35.5***	***39.3***	***43.6***

Non-crude sources will expand rapidly



How much capacity?
Required OPEC crude in three policy scenarios

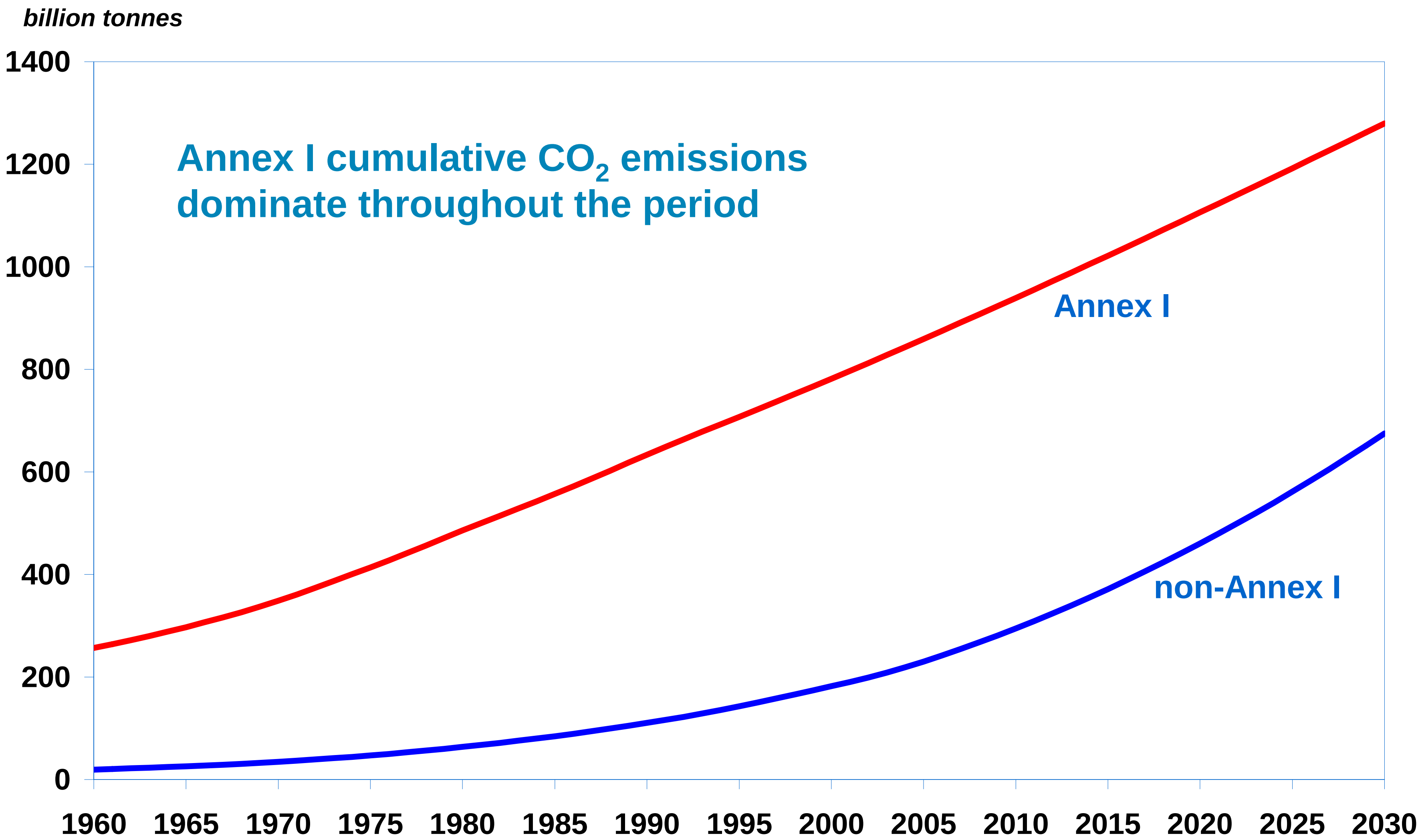
- Wide range of possible upstream investment needs
- Security of *demand* and security of *supply* go hand-in-hand



The cost challenge

- Cost of engineering, procurement, construction and petroleum services
- Upstream costs have doubled since 2000
- Structural changes suggest that an element of higher costs is here to stay
- Despite these increasing costs, the industry is investing heavily
- Cost and availability of skilled labour

Cumulative CO_2 emissions from 1900



Protecting the environment

- Growing concern over local pollution and potential climate change
- The need for developing cleaner fossil fuel technologies
- This includes carbon dioxide capture and storage
- Developed countries should take the lead in the development and deployment of this technology

Concluding remarks

- Increasingly complex global energy system
- Growing interdependence
- Many uncertainties and challenges as well as opportunities for sustainable development and for poverty alleviation (Millennium Development Goals)
- Pragmatic dialogue and cooperation among all stakeholders is the way forward

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