

*DPI Annual Meeting 2022 – November 8, 2022 (Eindhoven, NL)*

# **25 Years of DPI : Excerpts from a Witness' Notebook**

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# « Something called DPI... » (Bologna, ~1997)



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## Propene Polymerization Promoted by $C_2$ -Symmetric Metallocene Catalysts: From Atactic to Isotactic Polypropene in Consequence of an Isotope Effect

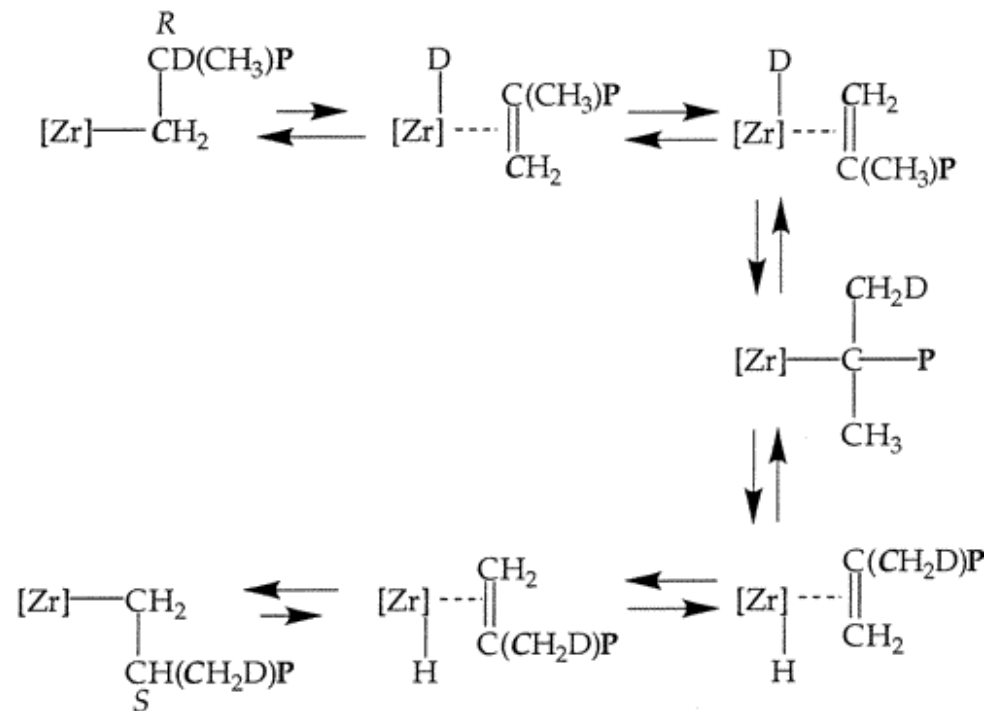
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([Zr] =  $Cp_2Zr^+$ ; P = remaining polymer chain)

## « Something called DPI... » (1999-2003)



« We invite you to submit a project application...  
« The important point is QUALITY. One page is enough »

[...]

« We like your proposal.  
« Your project application has been granted. ... The budget includes the salary for a 1.0 fte PD [Valeria Van Axel Castelli] »



Q. Jan, what are the rules that I must follow as a DPI project leader?...  
A. Rules?? Do good stuff...

# DPI Project #100 ... good stuff indeed!



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## “Oscillating” Metallocene Catalysts: How Do They Oscillate?<sup>†</sup>

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## “Oscillating” Metallocene Catalysts: What Stops the Oscillation?

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# My notes on the DPI [Polyolefin Technology Area], 1999-2003

- VERY MUCH DUTCH
- Brilliant idea (agile virtual institute, nice cooperation on pre-competitive projects between academia and industrial companies competing on the market)
- High-quality science on industrially relevant topics
- [Some] Application of a «Chain-of-Knowledge» approach
- Very little bureaucracy, few constraints, rather limited program coordination
- [More than] Adequate funding
- Freedom, freedom, freedom!
- For an Italian, something approaching the concept of Valhalla



# « Would you be willing to serve as DPI-PO Scientific Chair? » (June 2004)



Een nieuwe Zonnekoning bij DSM Research?





« Would you be willing to serve as DPI-PO Scientific Chair? » (June 2004)

« Well, I'll try » (November 2004)



Een nieuwe Zonnekoning bij DSM Research?



Wise Man & PAC



Philosopher & Managing Director  
*Quote of the Century:*  
« *The best white wine is red wine* »



# Italian Order vs Dutch Chaos, 2004-2019

- Stronger project follow-up
- Two-Half-Day Cluster Review Meetings (3 x year) with dinner and open bar in between
- High-profile education in PO («Research Training Courses», fundamental & advanced)
- International PO-dedicated forums («Blue Sky Conferences»)





## **Main DPI[-PO] facts in my perception, 2004-2010**

- Truly international high-class program
- 3x «Ticket Multiplier» scheme effectively fostering industry participation and program growth
- Unique opportunities for academic groups to cultivate research in areas of great importance for industry but low appeal for academia and little chances of public funding
- Perfect breeding ground for a modern multi-disciplinary R&D approach
- Very nice educational initiatives
- Excellent opportunities for young talents (PhDs & PDs) to grow scientifically and professionally, and then get a qualified job
- Excellent opportunities for partner Companies to watch said young talents flourish, and ultimately hire them

*But in the end, Lehman Brothers bankrupted...*

## **Main DPI[-PO] facts in my perception, 2011-2019**

- 3x «Ticket Multiplier» scheme questioned and ultimately discontinued
- First signs of industry «disaffection»
- Progressive budget and program contraction
- Real risk to lose critical mass

## **Main DPI[-PO] facts in my perception, 2011-2019**

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*A key question: is public funding of mature industrial R&D justified?*



## **Main DPI[-PO] facts in my perception, 2011-2019**

- 3x «Ticket Multiplier» scheme questioned and ultimately discontinued
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*A key question: **is public funding of mature industrial R&D justified?***

*My short answer: **NO***

*With some elaboration:*

***The intuition that originated the DPI remains valid,  
but industry should pay the bill***

## **And now the world has changed [again], 2020-...**

- After Covid, we know that there are different (sometimes better) ways to do things
- We must transition from a linear to a [more] circular model of economy
- The combination of High Throughput Experimentation and Artificial Intelligence opens new doors for problem solving in Science and Technology
- In view of the above, what used to be mature may not be so anymore
- All this creates fantastic and unprecedented opportunities for education and research, provided that politicians and managers with talent and vision support the endeavor
- Of course, that holds for the DPI too

**Thank you and best wishes!**