



# AI and future e-Infrastructure

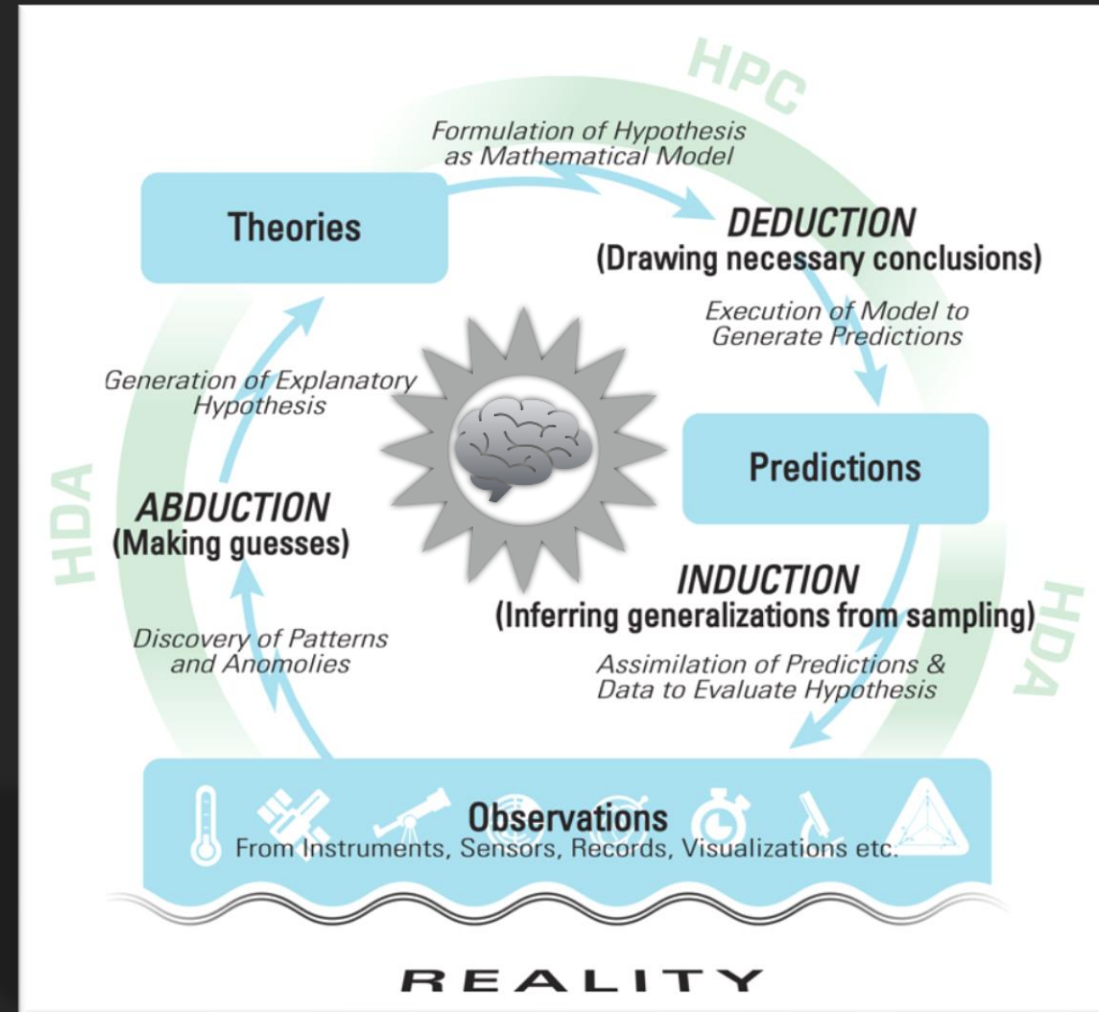
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# What is this all about? Cycles...



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# Questions for Discussion:



What is AI for CI?

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What will this mean for EuroHPC  
and Horizon Europe?

# Drilling down...

- AI for CI

- For the application of AI to current cyberinfrastructure challenges (“AI in the CI”), what area of automation would have the greatest impact?
- Can the programming of extreme-scale machines be automated? In what ways?
- What are the biggest hurdles to supporting the Edge to HPC continuum?
- Is the Continuum the new “Facility”? What will this mean for EuroHPC and Horizon Europe?
- How to improve system operations?
- How to improve applications and workflow performances?

- CI for AI

- How is AI different from any computationally or data intensive application?
- What does a future facility for edge to HPC (“Computing Continuum” facility) look like?
- What is the scientific computing stack for edge to HPC cluster (e.g. in transit, streaming, etc.)?
- What is required to enable AI workflows of the future, e.g. that traverse the area, or are international?



# Drilling down...

- AI for EuroHPC & Horizon Europe

- What EPI should be looking at related to AI?
- - What is missing in the work programs to address the continuum?
- -What international collaborations should be encouraged?
- What is the potential impact of AI on EU competitiveness?
- What happens if we don't do more?
- Are there missing topics (e.g. smart human-machine interactions)?
- How can AI contribute to EU cyber-security?
- What about ethics?
- AI is data (cleaned / labelled) hungry, how is this addressed? --> AI is capitalistic in this regard...
- Do EU scientist have the data they need, the compute power needed?
- What is the next AI topic (i.e. beyond deep-learning)?





# Thank YOU

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- References:

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- Asch et al. Pathways to Convergence. Int J. HPC Appl. 32(4), 2018.

