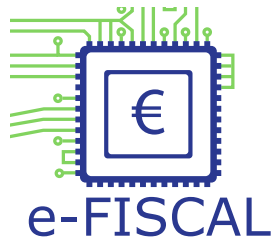# e-FISCAL project
Cost/core hour of the European computing e-Infrastructure?

Matti Heikkurinen
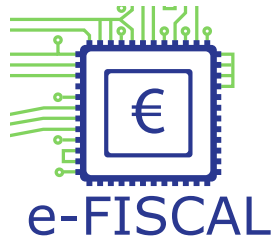**matti@emergence-tech.com**
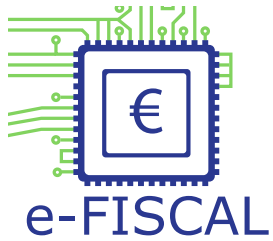
e-FISCAL project/Emergence Tech Ltd.

Why assess the costs?

- ## Feet on the ground
  - Growing use, new users, new technologies
  - "Real money" and new choices

- ## Transfer argument
  - Accounting grand challenge
  - Federated ICT infrastructures emerging outside research

- ## The Zen of cost assessment
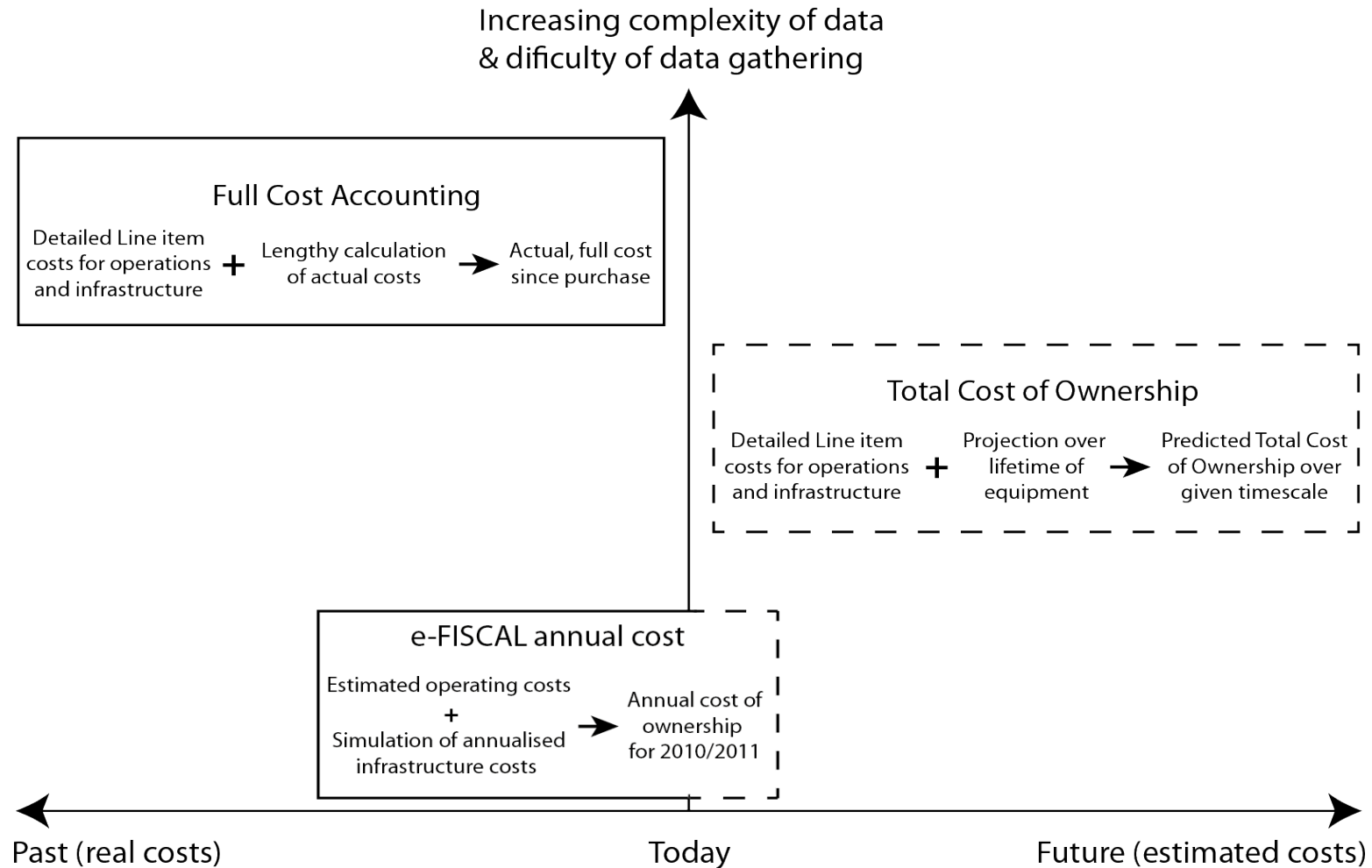 - Trigger for broader self analysis

Complexity challenge
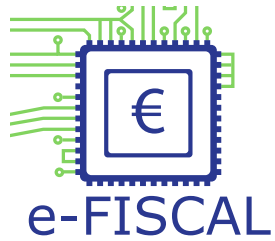
- Staffing
  - Roles included in the costs (IaaS vs. consulting)
  - Different FTE costs – Ph.D student vs. senior staff

- Mixed acquisition models
  - Infrastructure budget, e-Infrastructure grants
  - Research grants
  - Donations (including in-kind)

- Difficult to estimate costs, e.g.
  - Buildings: costs and lifetime
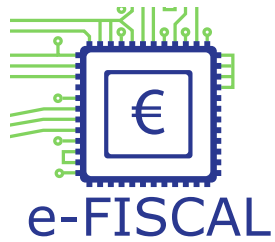 - Proportions of running costs (university's electricity bill)

Methodology challenge

Increasing complexity of data
& dificulty of data gathering

Full Cost Accounting

Detailed Line item costs for operations and infrastructure $+$ Lengthy calculation of actual costs $\rightarrow$ Actual, full cost since purchase

Total Cost of Ownership

Detailed Line item costs for operations and infrastructure $+$ Projection over lifetime of equipment $\rightarrow$ Predicted Total Cost of Ownership over given timescale

e-FISCAL annual cost

Estimated operating costs $+$ Simulation of annualised infrastructure costs $\rightarrow$ Annual cost of ownership for 2010/2011

Past (real costs)   Today   Future (estimated costs)

The e-FISCAL approach: quick measure + short projection

- Collect information about existing infrastructure
  - "What is out there?"
- Make estimate of the current replacement cost of each component
  - "What would it cost if we built it today?"
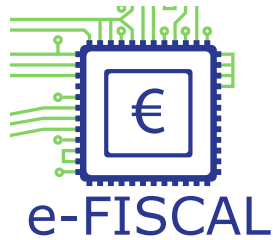- Divide the cost by useful lifetime
  - Add OPEX

The e-FISCAL approach:
quick measure + short projection
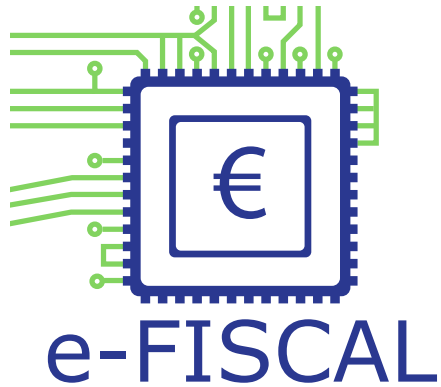
- Collect information about existing

> ### Cost in 2011:
>
> from 0.03€ to 0.07€ per core hour - in line with 2012 Cloud IaaS pricing. **N.B.**
>
> - Cost vs. price
> - 2011 vs. 2012
> - IaaS vs. (IaaS + PaaS + …. + helpdesk & consulting)

Future plans

- The project will continue until early 2013
  - Final workshop
  - Conclude survey and analysis
  - Polish the reusable cost models and tools
- Handover
  - EGI compendium effort
  - Online community
- Ensure relevance to broader scope
  - Complement data management cost models?

For more information

info@efiscal.eu - **www.efiscal.eu**

Join the mailing list and to hear about the final workshop!