



Haruspex: Valutazione completamente automatica della sicurezza di un sistema ICT

F.Baiardi



Haruspex: automatic assessment of ICT risk

F.Baiardi

Dipartimento di Informatica

f.baiardi@unipi.it



Research team on ICT risk

- Tools supporting the assessment of ICT system
- Partnership with
 - Polizia Postale
 - Comando Generale Arma dei Carabinieri
 - Enel SpA /Enel Distribuzione
 - Ericssons
 - IBM
 - Veolia



ICT Infrastructure?

- Not only internet but also
- Control networks
 - SCADA, traffic, garbage and water treatment
- E-commerce website
- Smart grids
- Clouds
- Your car
- Maritime sector



What Haruspex can do for you -1

You describe to Haruspex your nightmares

- Which is the infrastructure you are worried about
(a bunch of IP addresses)
- Which are the threat you are worried about
 - Insiders
 - Competitor
 - Script kiddies



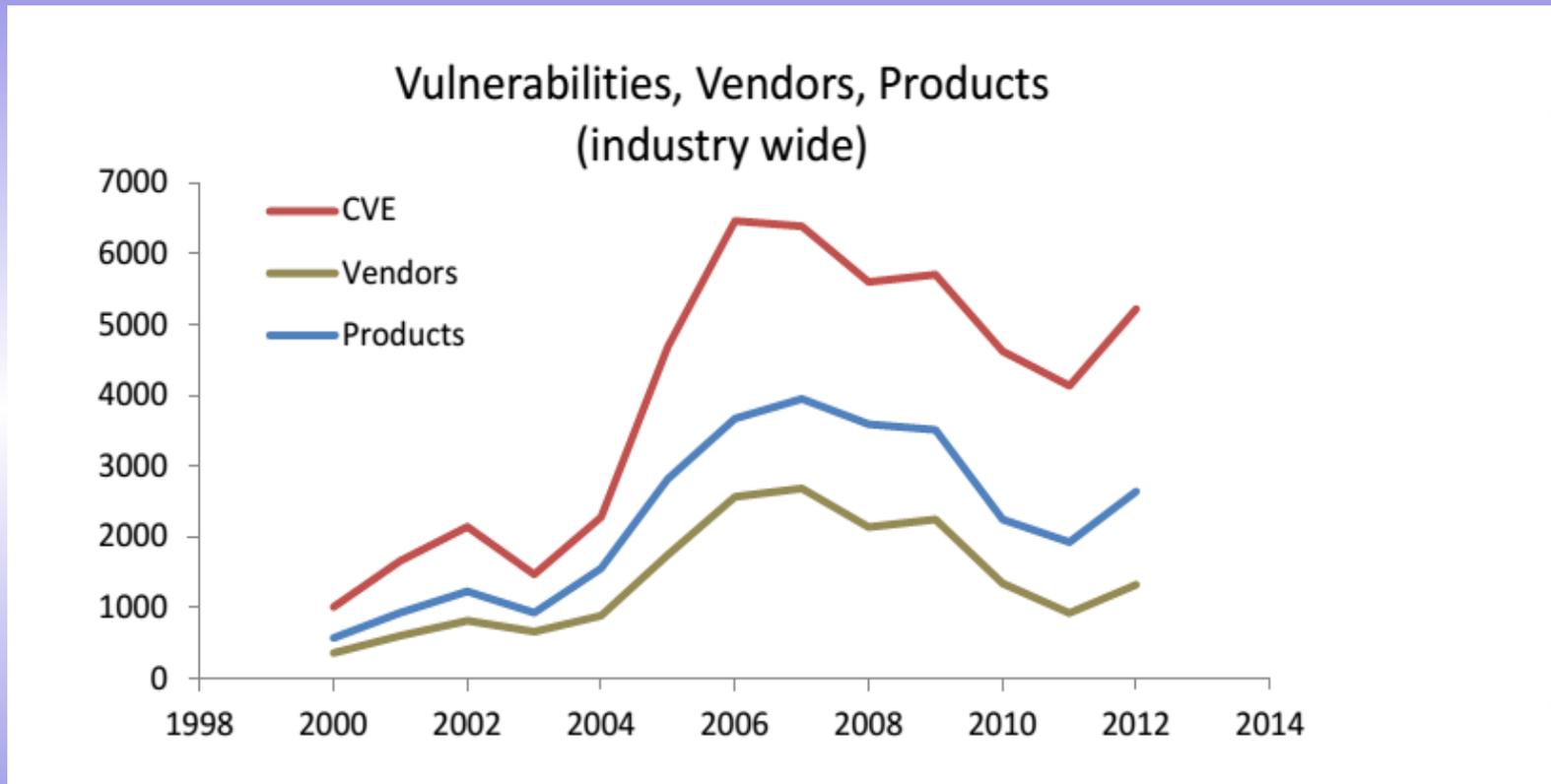
What Haruspex can do for you -2

Haruspex will

- a) build a model of your nightmare
- b) run a penetration test on this model
- c) tell you
 - i) the defects of your infrastructure
 - ii) the attacks against it
 - iii) the probability that an attack is successful
 - iv) the defects to remove to avoid nightmares



No defects in my infrastructure!



Discovered vulnerabilities in each year



How long does it takes?

- A couple of hours on your infrastructure to discover its defects
- A couple of hours on our highly parallel machine (IBM grant to support our work) to build the model and run a Monte Carlo penetration test to discover
 - What could go wrong
 - What is the probability that it goes wrong



We are here because we are looking for:

- Users of Haruspex
 - a) case studies: we will analyze your infrastructure and describe you the results (for your eyes only)
 - b) infrastructures still to be deployed: remove defects before they hurt
- Partners
 - c) define the new versions of Haruspex and improve accuracy and precision