University of Innsbruck
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To Invest or Not to Invest?

Assessing the Economic Viability of a Policy and Security Configuration Management Tool

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Policy and security configuration management

- Organizations face numerous regulatory and contractual requirements they need to comply with
- Expenditures for compliance are increasing, especially for service providers offering services to multiple customers
- Managing requirements and the configuration of IT landscape components is cumbersome and error-prone
- A tool partially automating policy and security configuration management may help to
  - reduce the costs associated with policy and security configuration management
  - increase the trustworthiness through higher levels of security and compliance

PoSecCo – A policy and security configuration management tool

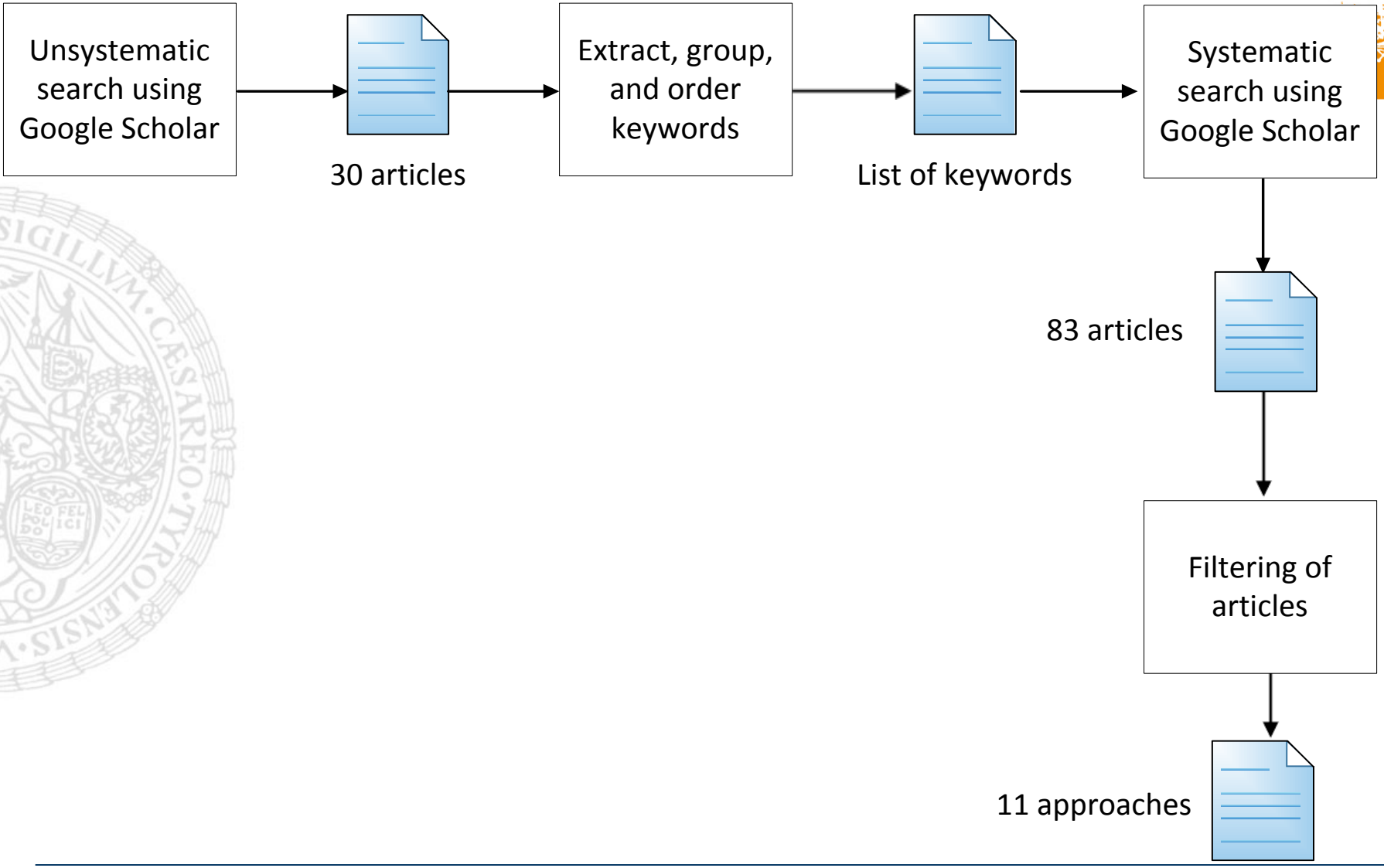
- Aims at policy and security configuration management
- Aims to support reducing costs and increasing trustworthiness
- Establishes link between business requirements and security configuration of IT landscape components
- Can be operated in two modes:
  - Planning mode
  - Running mode
- Offered as a whole
- Ideally run not only at one organization but also at its suppliers and customers to increase overall benefits

Requirements for investment approaches for such a tool

The approach

- *must* support investment decisions regarding security products bought as a whole
- *must* consider financial measures
- *should* consider non-financial measures
- *must* support one-time costs and benefits
- *should* support running costs and benefits
- *must* be applicable without explicitly considering attacks
- *should* consider network effects

Identification of approaches



Results

Authors	Bought as a whole	Financial	*Non- financial*	One-time costs	*Running costs*	Attacks	*Network effects*
Gordon & Loeb [1]	X	X		X		X	
Mizzi [2]	X	X		X	~	~	
Al-Humaigani & Dunn [3]	X	X		X		X	
Sonnenreich et al. [4]	X	X		X		X	
Cremonini & Martini [5]	X	X		X		~	
Huang et al. [6]	X	X		X		X	
Tallau et al. [7]	X	X	X	X	~	X	~
Wang et al. [8]	X	X		X		X	
Gordon et al. [9]	X	X		X		X	
Bodin et al. [10]	X	X	X	X	~	X	~
Butler [11]	X	X	X	X		X	

Findings and conclusion

- The approaches by Bodin et al. [10] and Tallau et al. [7] at least partially fulfill all requirements defined for a policy and security configuration management tool
- Both are not completely suitable as both are primarily suited for comparative analyses
- These two approaches could be combined with useful features of the other approaches

THANK YOU!

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PoSecCo
Policy and Security Configuration Management

http://www.posecco.eu

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