



PROVIDING TRUST AND REPUTATION IN PEER-TO-PEER SYSTEMS

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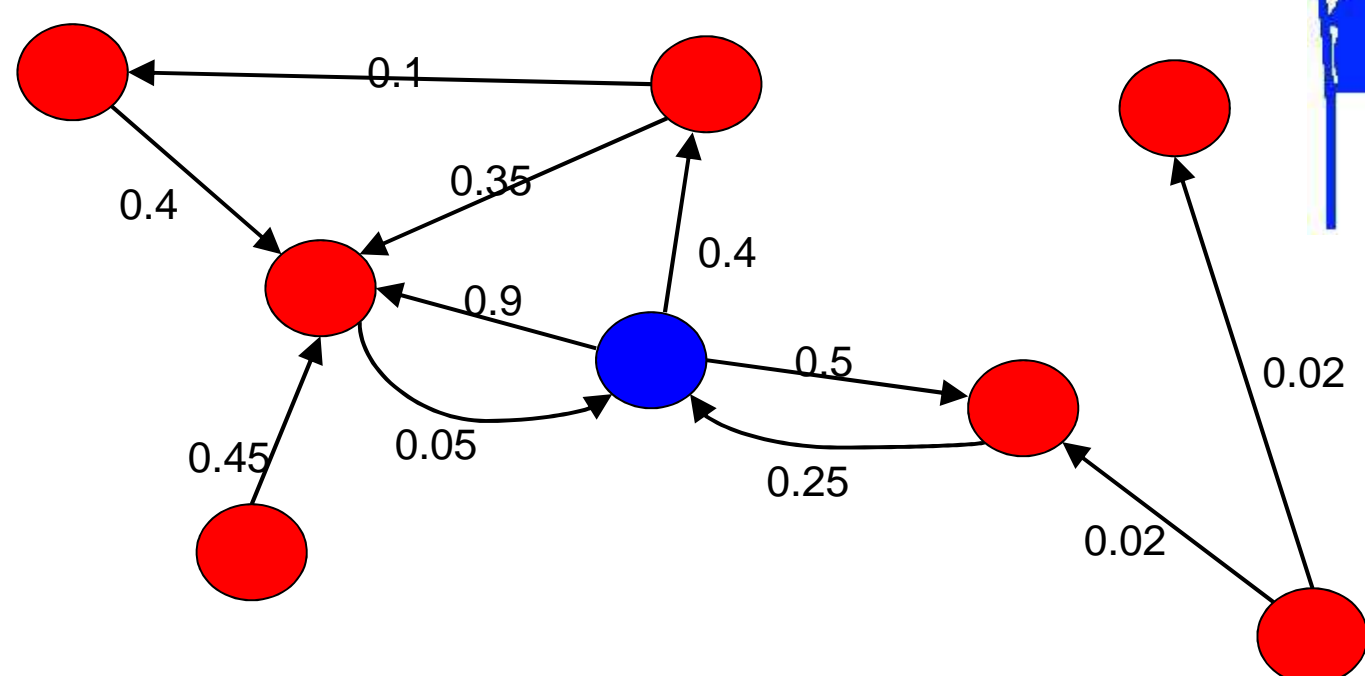
WHY?

Distributed computing: hot bed of significant development that is generating amazing advances

P2P computing: distributed computing paradigm of sharing resources on the Internet

P2P open and anonymous nature
⇒ an ideal medium for attackers to spread malicious content

Information asymmetry in on-line collaboration



HOW?

Reputation mechanisms
[BarterCast: Fully distributed
BitTorrent-based] *

Reputation rationale:

- Past behavior predicts future behavior
- Poor behavior deterred by loss of future business

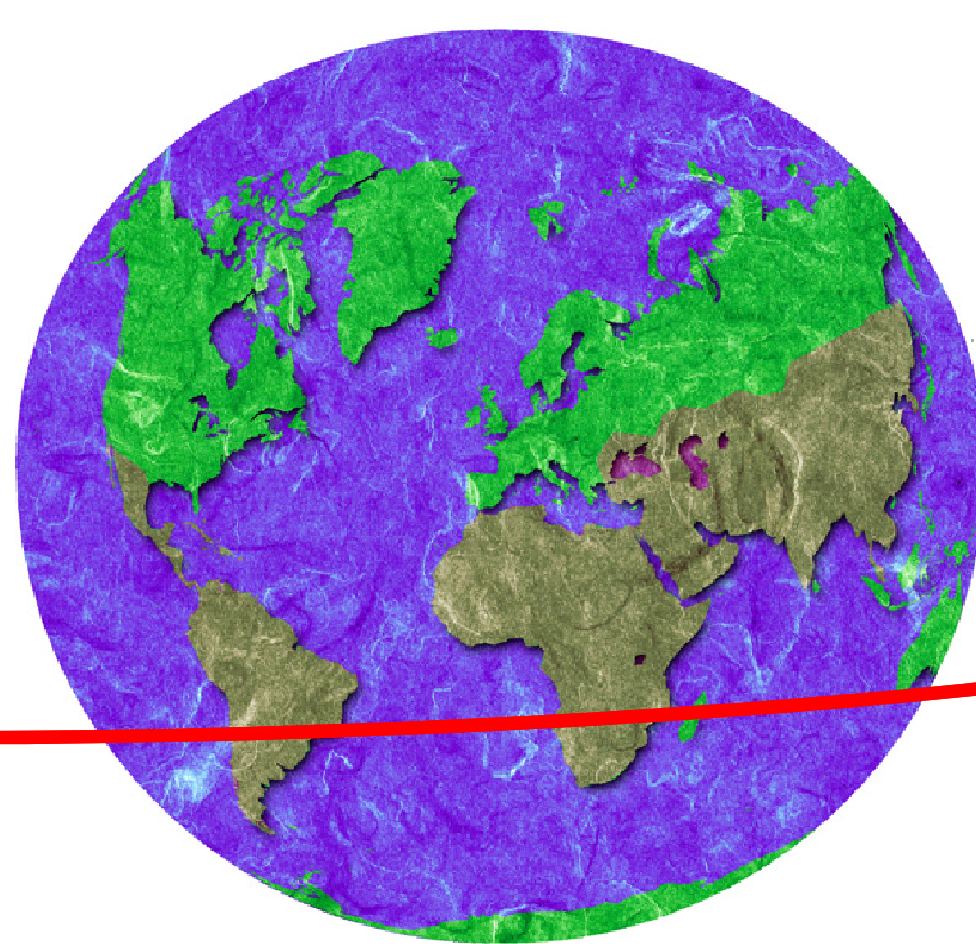
RESULT

Minimized privacy concerns and cost

Data protection

Maximized resource and data relevance and ease of use

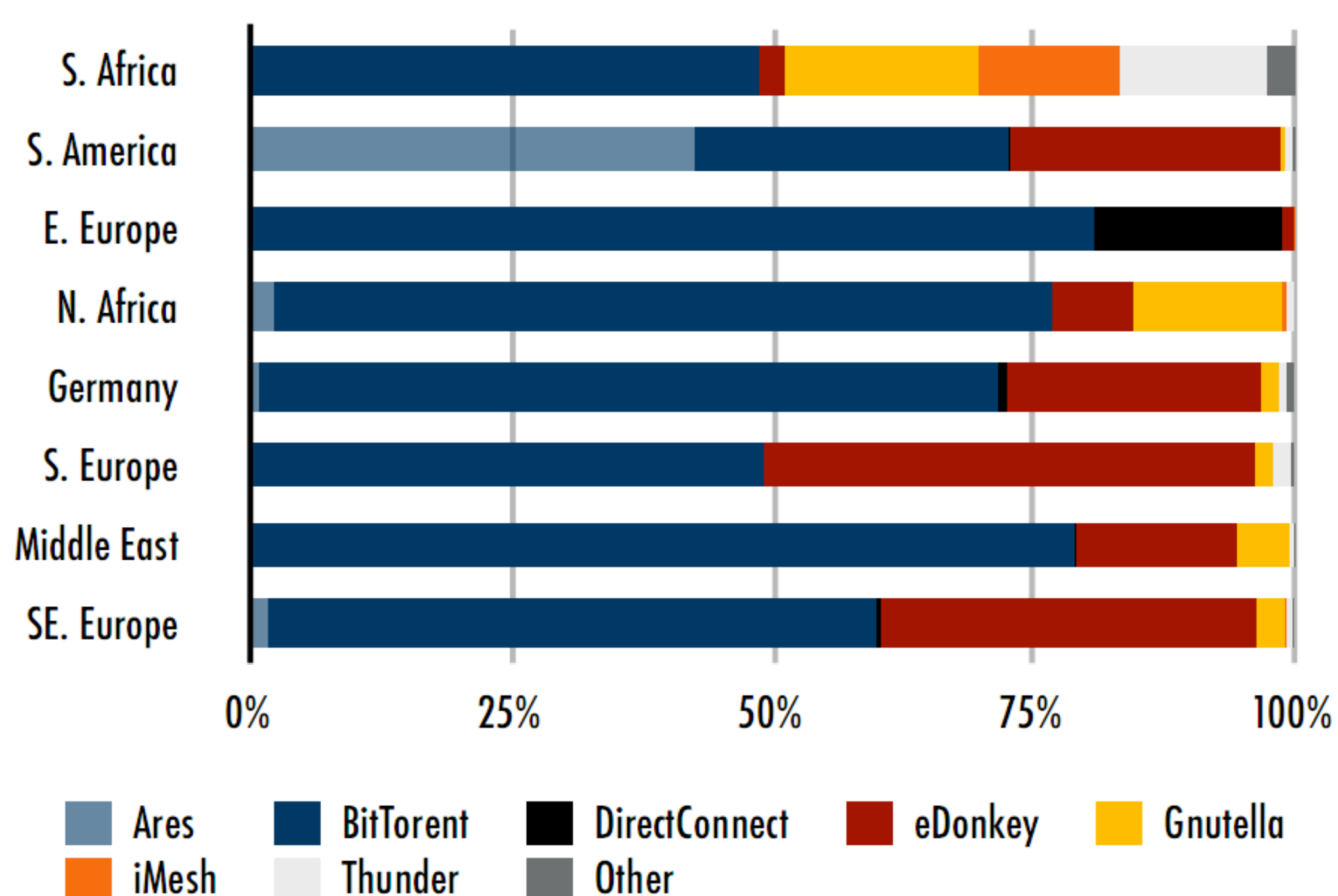
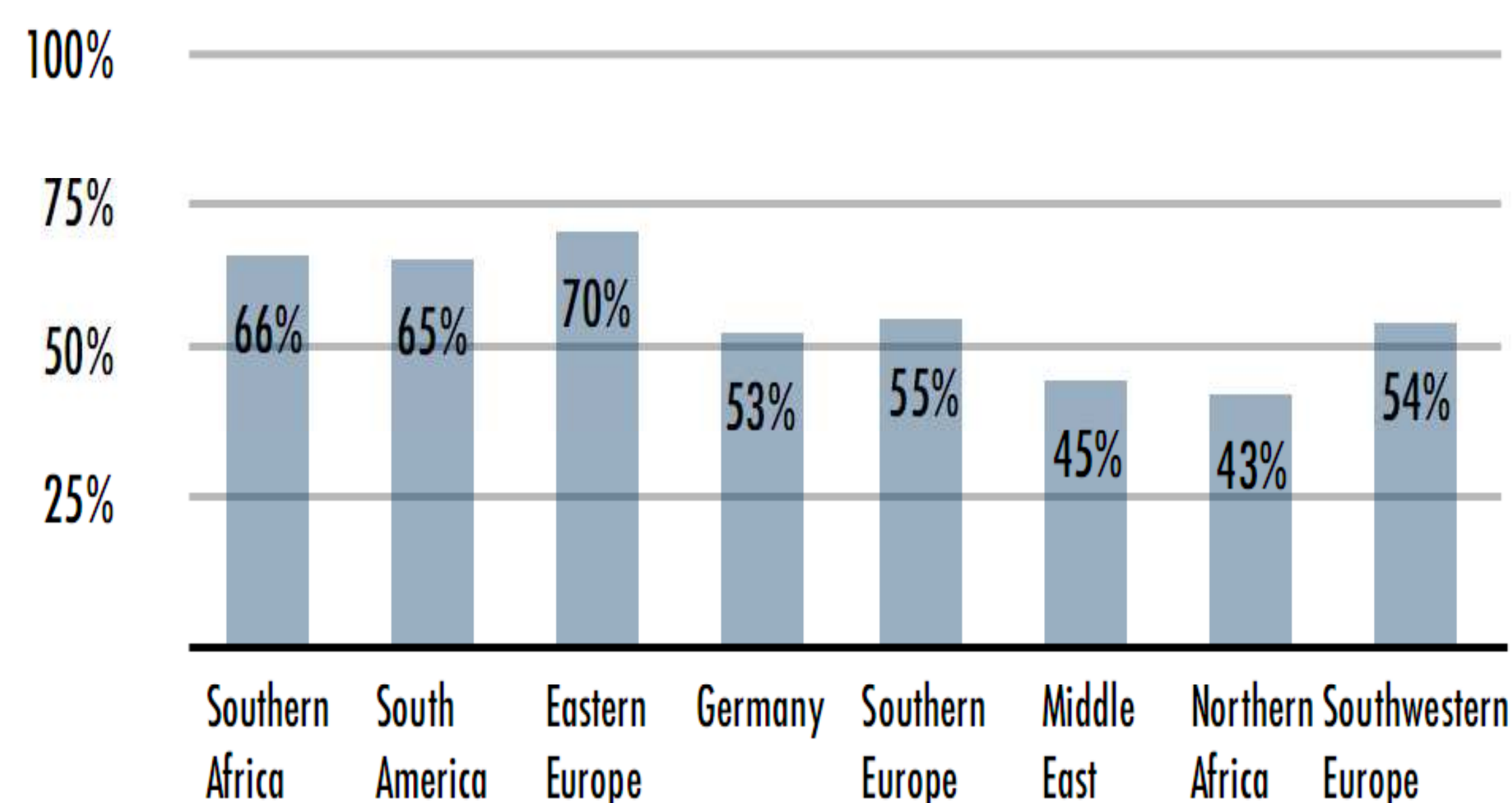
Reduced initial ambiguity



OBJECTIVES

The problem of deciding whether to interact is a process of judging how cooperatively prospective partners are likely to be with respect to the expected outcome.

Principals *gather information, evaluate* and *enforce* agreed upon policies (if necessary) without reliance on central management authority.



* <http://www.p2p-next.org/>