



ICT-Enabled Bright Society Vision Project [Bright ICT Initiative]

December 15, 2014

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Agenda

- 🌐 Task Force
- 🌐 Identification of ICT-caused Side Effects
- 🌐 Vision of Bright ICT
- 🌐 How to fulfill the Goals
- 🌐 Opportunities to AIS Members
- 🌐 Ten Framework Approaches
- 🌐 Expanding the Scope of IS World

Task Force of Bright ICT

- Jane Fedorowicz (Immediate Past President)
- Helmut Krcmar (President)
- Jae Kyu Lee (President-Elect)
- Ramayya Krishnan (Dean, Heinz, CMU)
- Allen Lee (AMCIS EC, Chair)
- Joey George (Past President)
- Nils Bjorn-Anderson (Past President)

SWOT

Strength <ul style="list-style-type: none">- Analytical Capability	Opportunity <ul style="list-style-type: none">- Protect the Side Effects of ICT- Create the Bright Future- Work with UN ITU
Weakness <ul style="list-style-type: none">- Lack of Relevance- Weak Technology Research- Weak Policy Research	Risk <ul style="list-style-type: none">- Lack of Social Impact of IS Research Outcomes

Identification of Side Effects of ICT?

- Privacy
- Security
- Anonymous rudeness
- Fraud and cybercrime
- Vulnerability to cyber terrors
- excessive communications
- Addiction to games and interactive computing
- Misleading minorities in cyber space, political system in the future
- But not limited to

Examples of Side Effects of ICT

- ICT has changed our life in a good way
- But Cybercrimes also increased & sophisticated

The Number of Cybercrimes

378m Users
(victims per year)

More than 1 million
(victims per day)



41% of online Adults

Victim of attacks such as
malware, viruse, hacking,
scams, fraud and theft



Mobile Cybercrime

38% of mobile users

Have experienced mobile
cybercrimes



Consumer Cybercrime Costs

US\$ 113 billion

Enough to host the 2012
LONDON Olympics almost
10 times

US\$ 298 (Average cost per
victim)

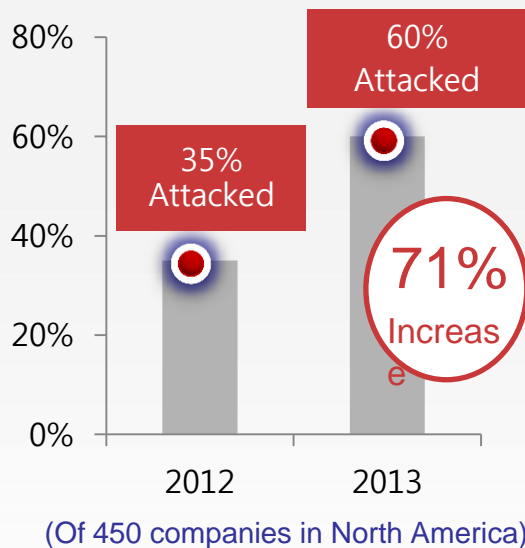


(Source: Symantec, 2013)

Example of Side Effects: Hacking/DDoS

- The growing attack volume and scale of DDoS attacks and Hacking
- National Index and Corporate Index

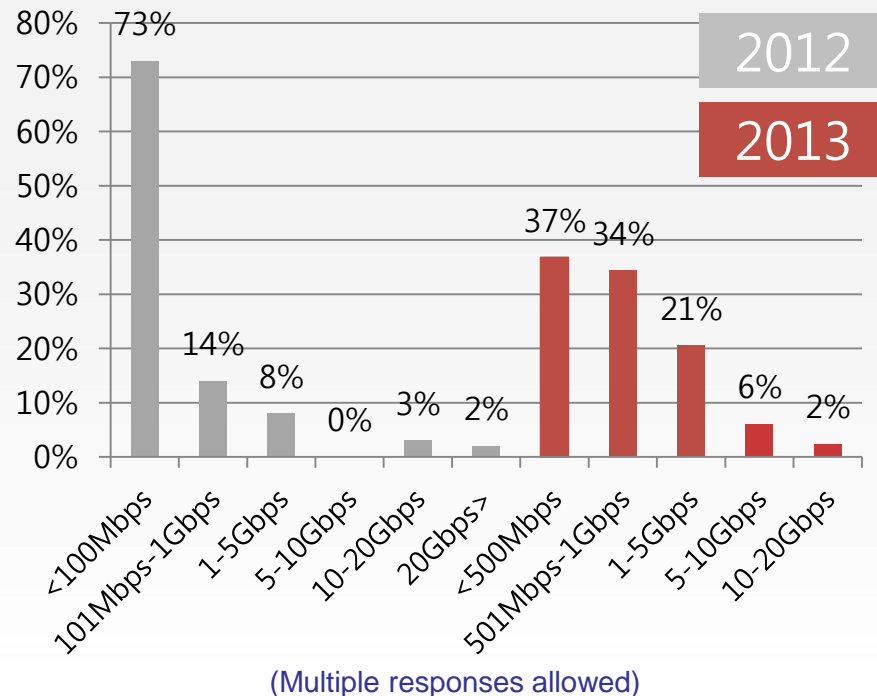
Widespread DDos attack



Frequency

Just once: 12.88% 6-10 times: 12.5%
 2-5 times: 34.09% 10 times+: 40.53%

DDos attack size in bandwidth



Customer support: 63.40% Lost revenue: 32.34%
 Brand confidence: 56.60% Theft: 23.40%

(Source: Neustar Annual DDos Attack, 2014)

Vision of Bright ICT

- Identify the Problems
- Measure the Degree of Seriousness
- Identify the Visionary Goals to Achieve
- Design the Solutions and Measure their Performance
 - Technology
 - Business Model
 - Policy
 - Social Norm
 - International Agreement

How to Fulfill the Goal

Academic Activities

- Panel; Workshop; ICIS and AIS Conf Tracks
- Special Issues of JAIS
- SIGS

Granted Projects

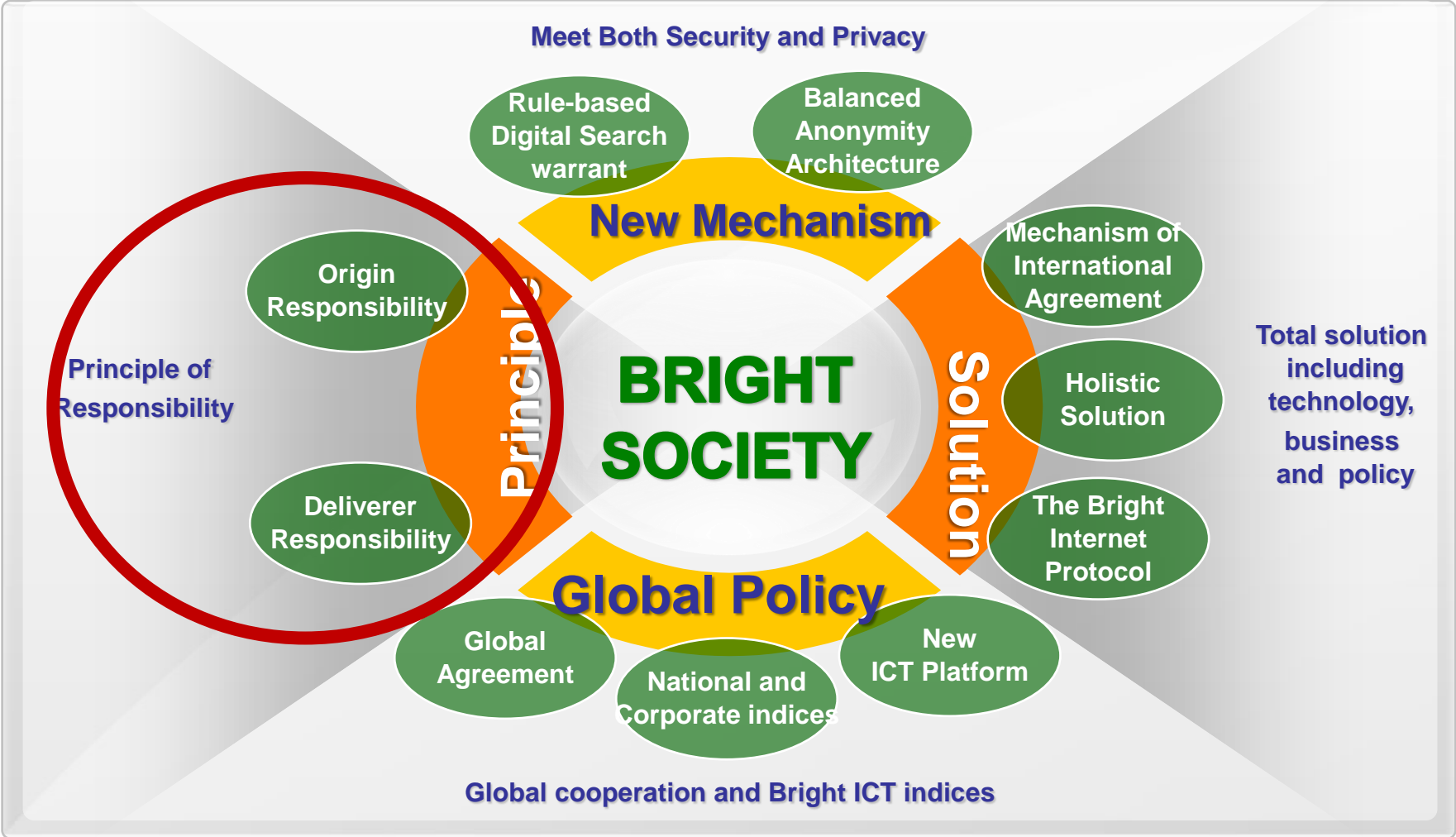
- International Projects; National and Theme Teams
- Bright ICT Index of Countries, Companies, and Products and Services

Global Bright ICT Summit

- With ITU; Possibly along with ICIS
- Channel of adopting international standards and governmental agreement

What is new with the Bright ICT Initiative?

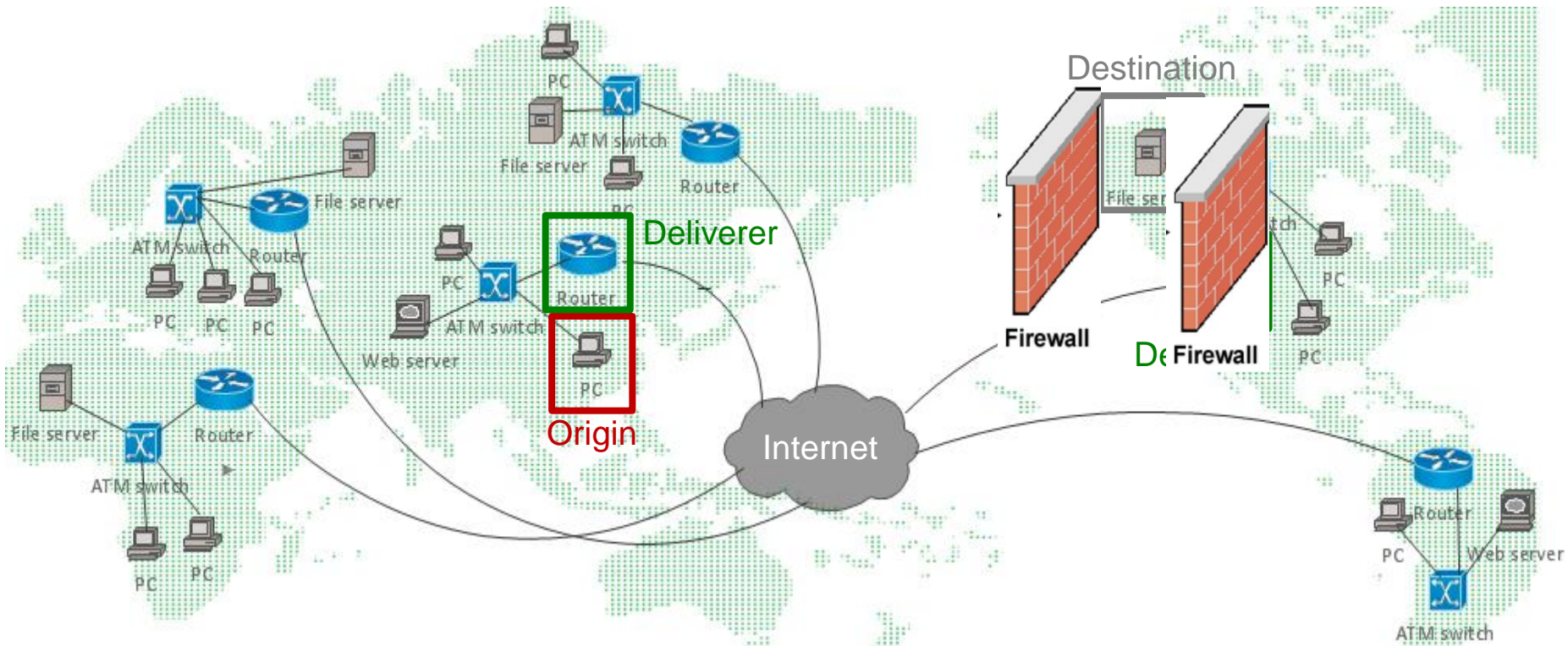
Ten Framework Approaches



Who should prevent DDOS Attack

Principle of Destination Responsibility

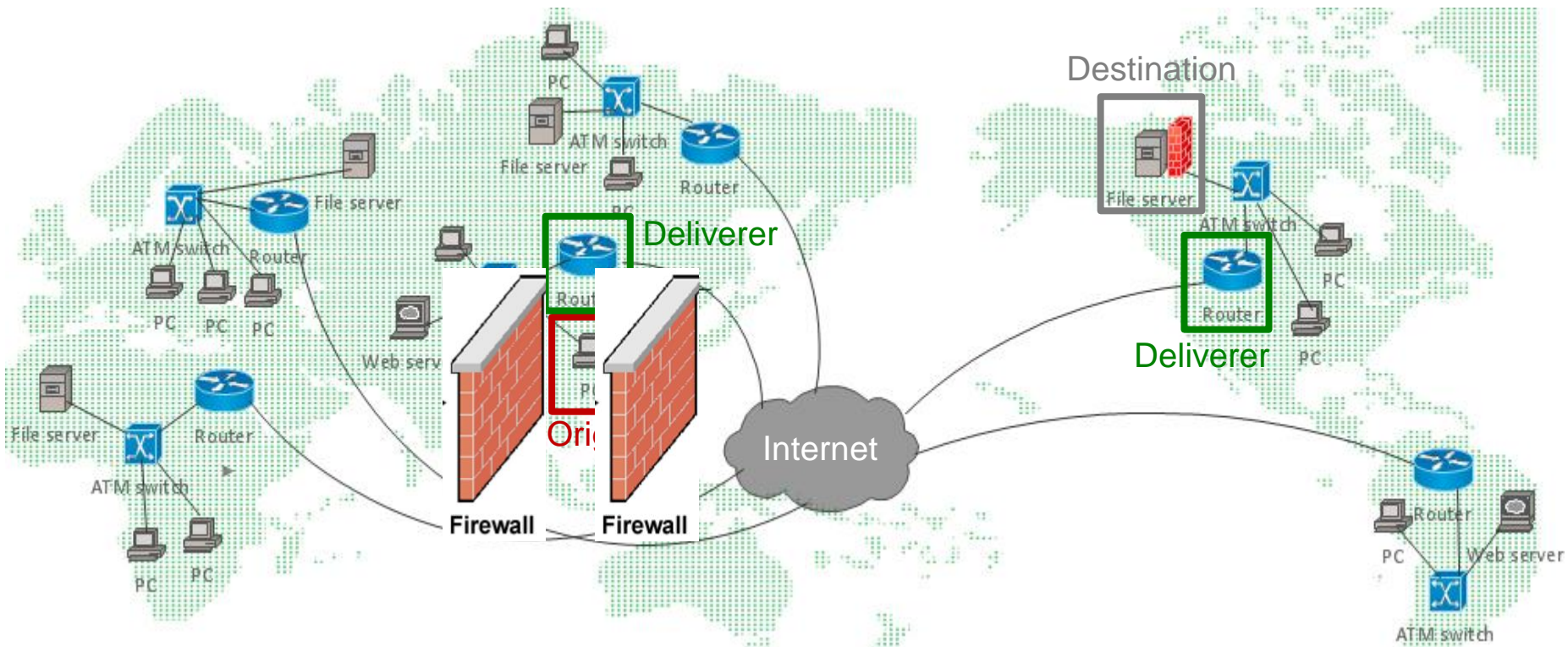
- Current Status:
- The responsibility of security risk is born by the users and destination server



Who should prevent DDOS Attack

Principle of Origin Responsibility

- Current Status:
- The responsibility of security risk is born by the users and destination server



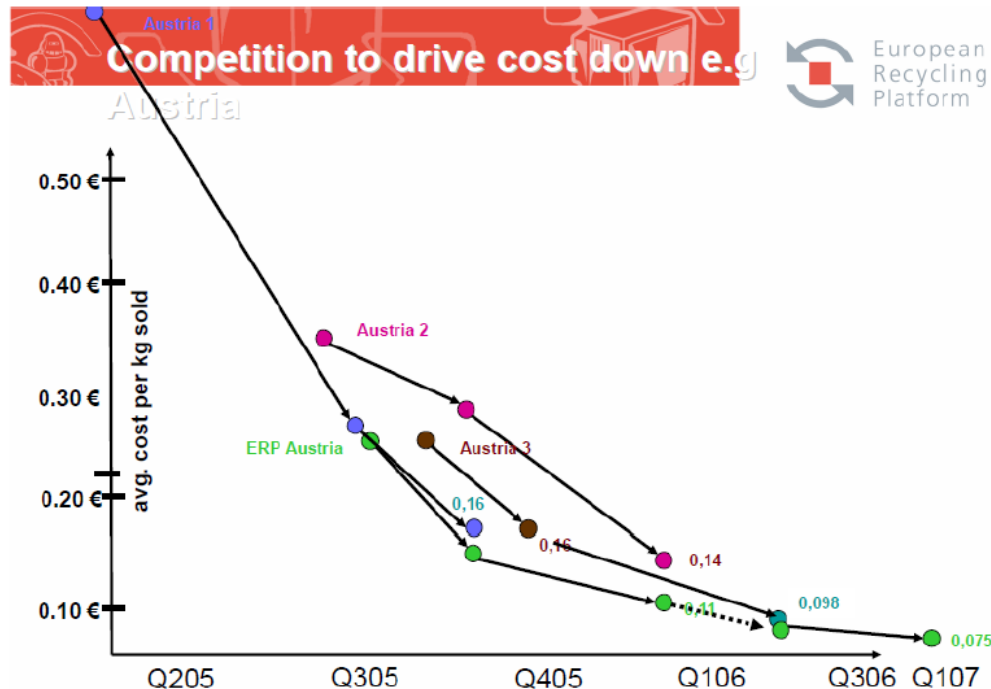
Principle of Individual Producers Responsibility: Model for e-Waste Take-back:

- The pan-Europe recycling organization created in response to the WEEE Directive to promote e-waste collection and recycling.
- Business model of the company” ERP
 - **Cost effective implementation of WEEE for IPR**
 - **In 2007 (2009)**
 - **1100 (1300) members in 8 countries**
 - **In 2014**
 - **Collected 2 Million tons across 17 countries**



Competition Pushed Recycling Price Down

Exhibit 5
Falling Recycling Prices



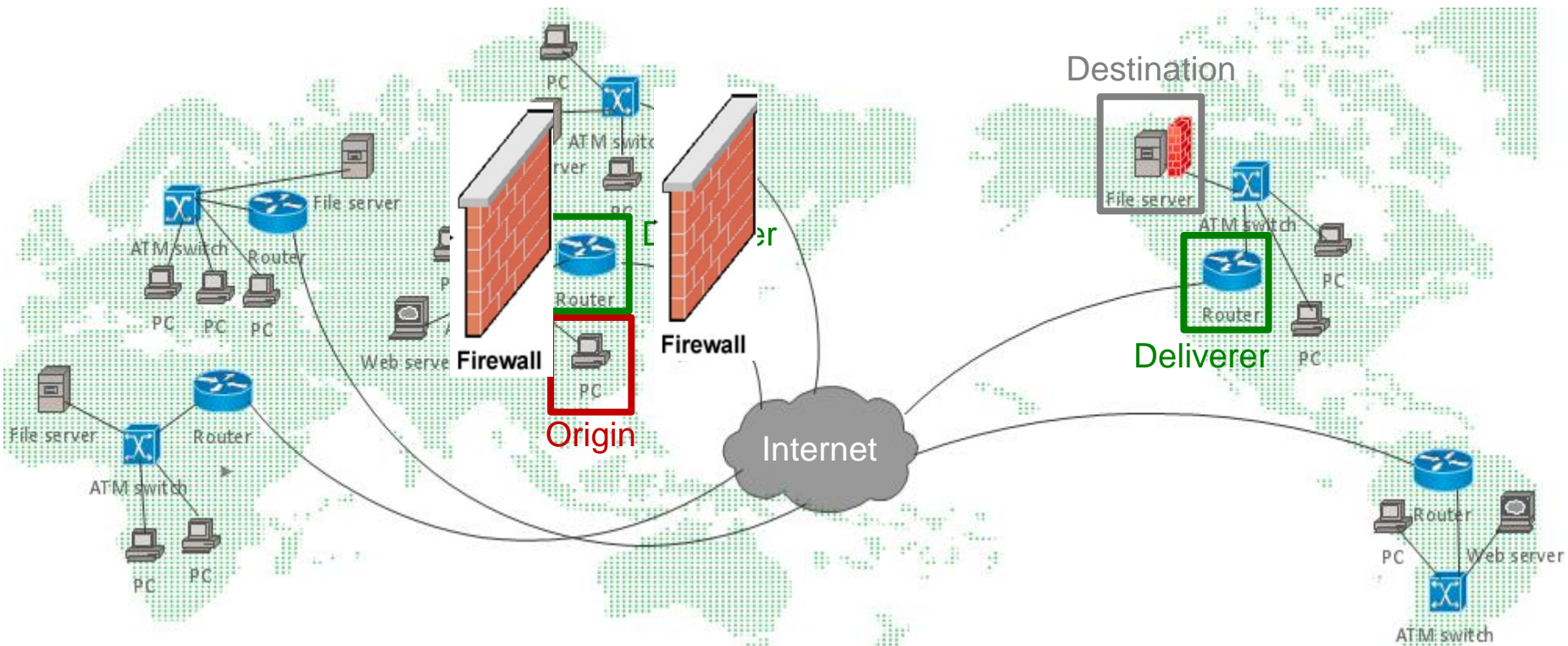
* For Small Appliances < 50 cm

E-waste recycling prices fell sharply as competition increased under the WEEE Directive. In the second quarter of 2005, there was only one e-waste collection and recycling organization. After ERP and two other CROs started operating later that year, all four groups engaged in several rounds of price cutting. As a result, the cost to recycle e-waste from small appliances dropped by 90 percent, from about 70 euro cents per kilogram in the second quarter of 2005 to 7.5 euro cents in the first quarter of 2007.

Who should prevent DDOS Attack

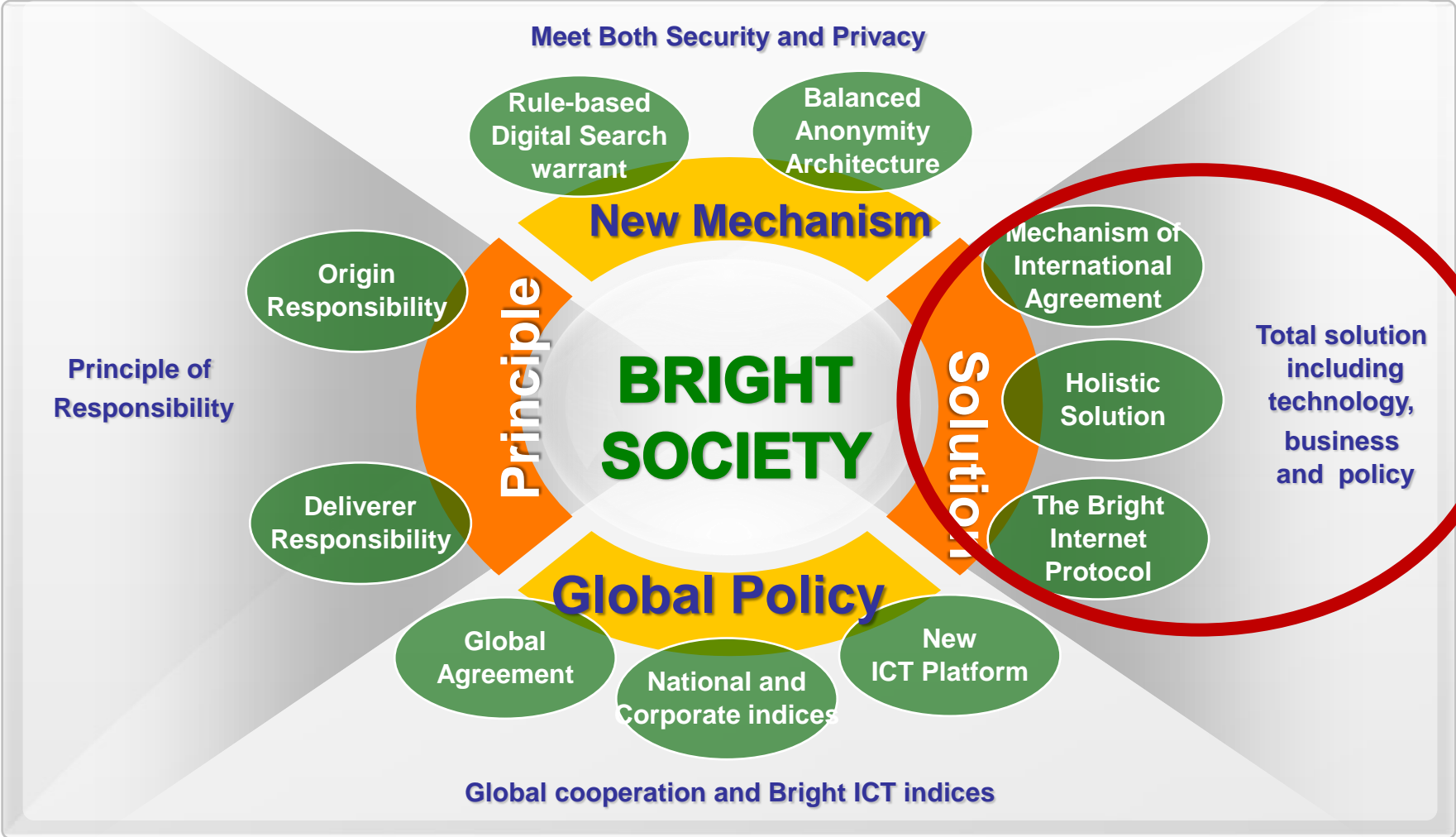
Principle of Deliverer Responsibility

- Carriers and Zombie as Accomplice of Attackers:
- Willful Negligence (Drug Runner)



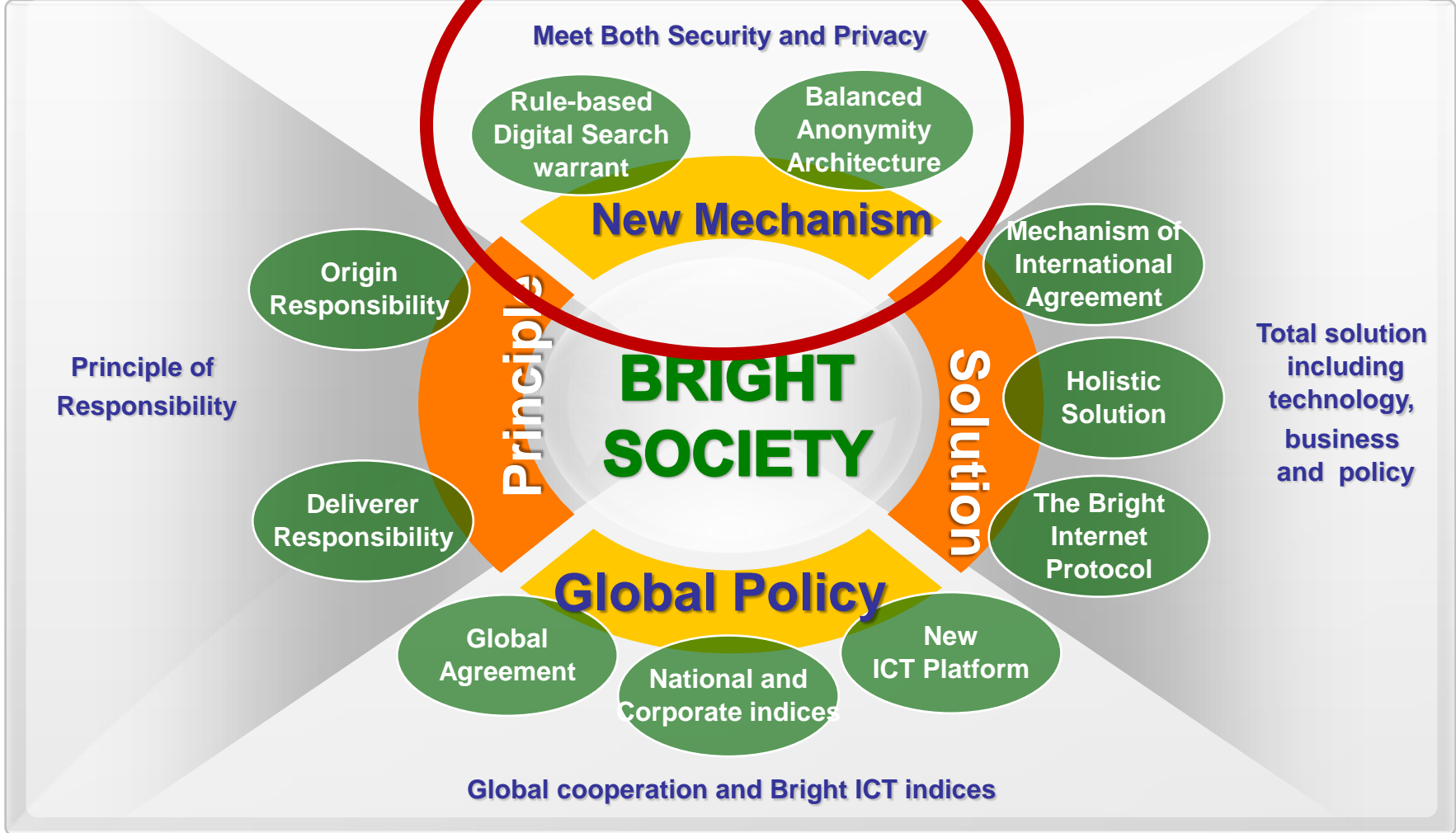
What is new with the Bright ICT Initiative?

Ten Framework Approaches



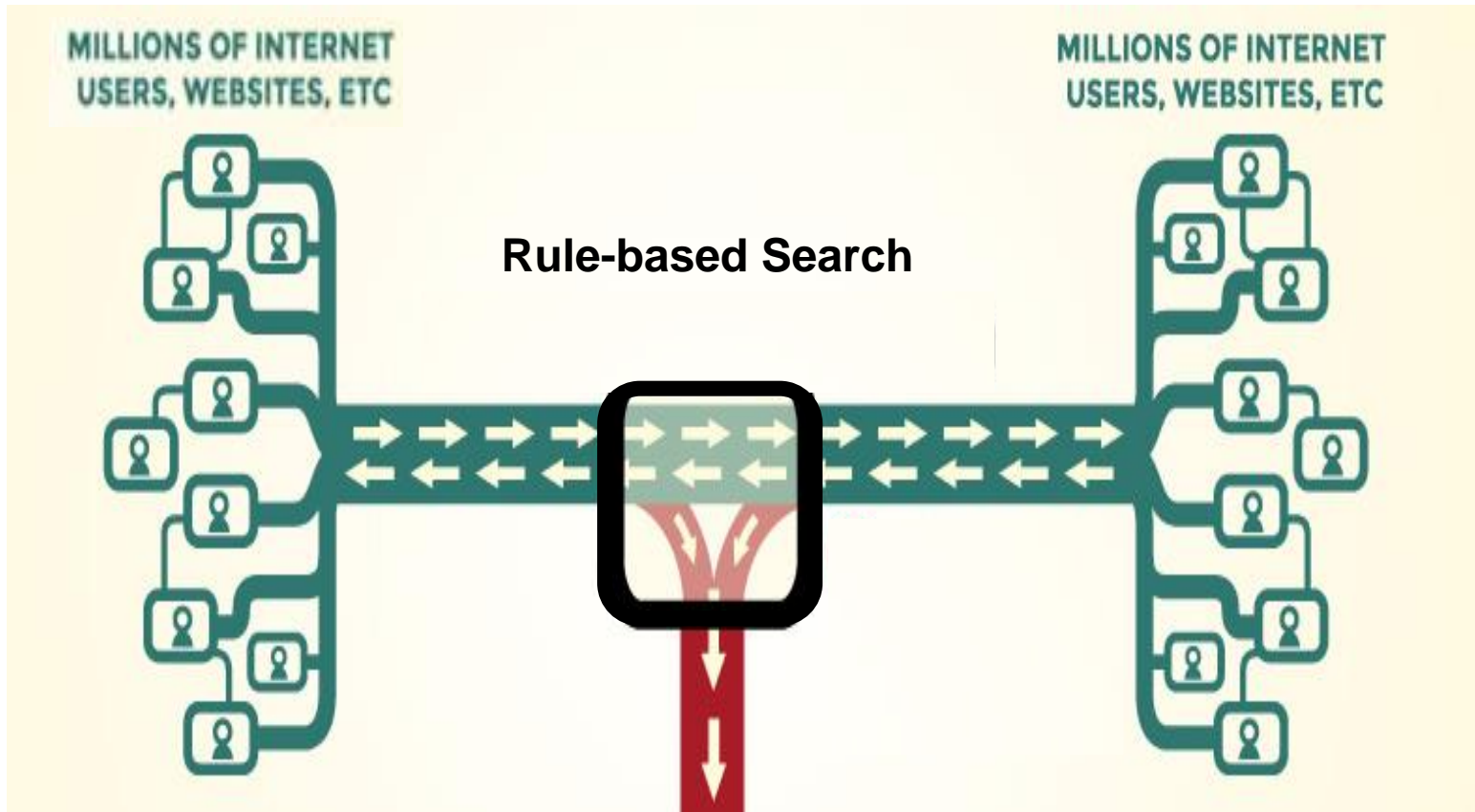
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New Mechanism

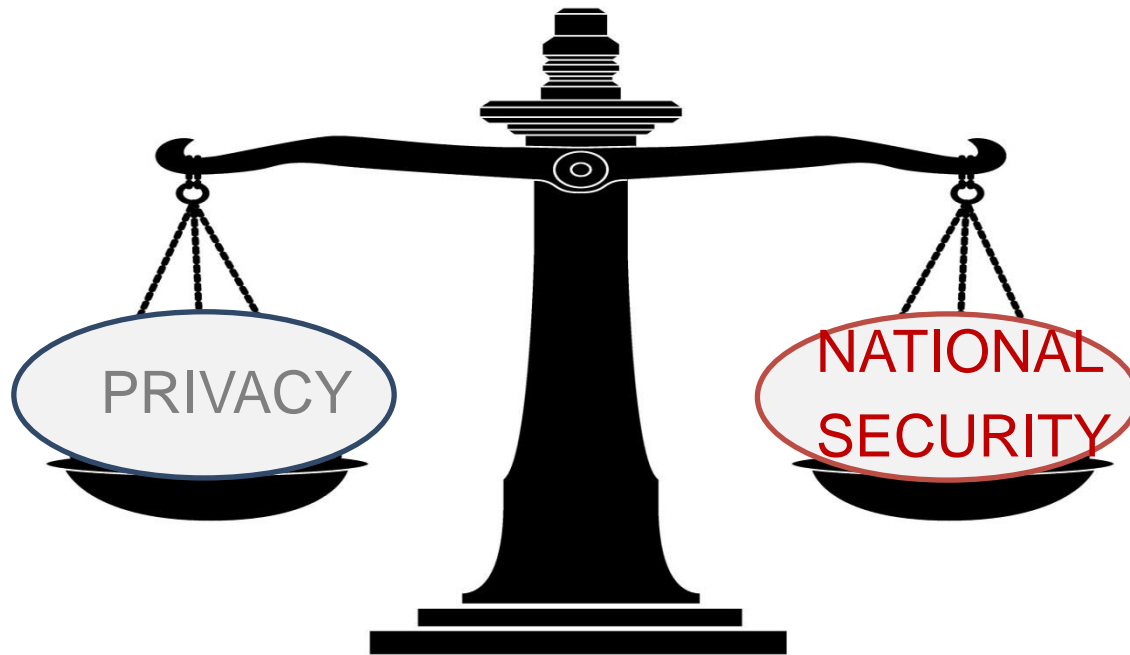
Real-time Rule-based Digital Search Warrant



Issue a search warrant

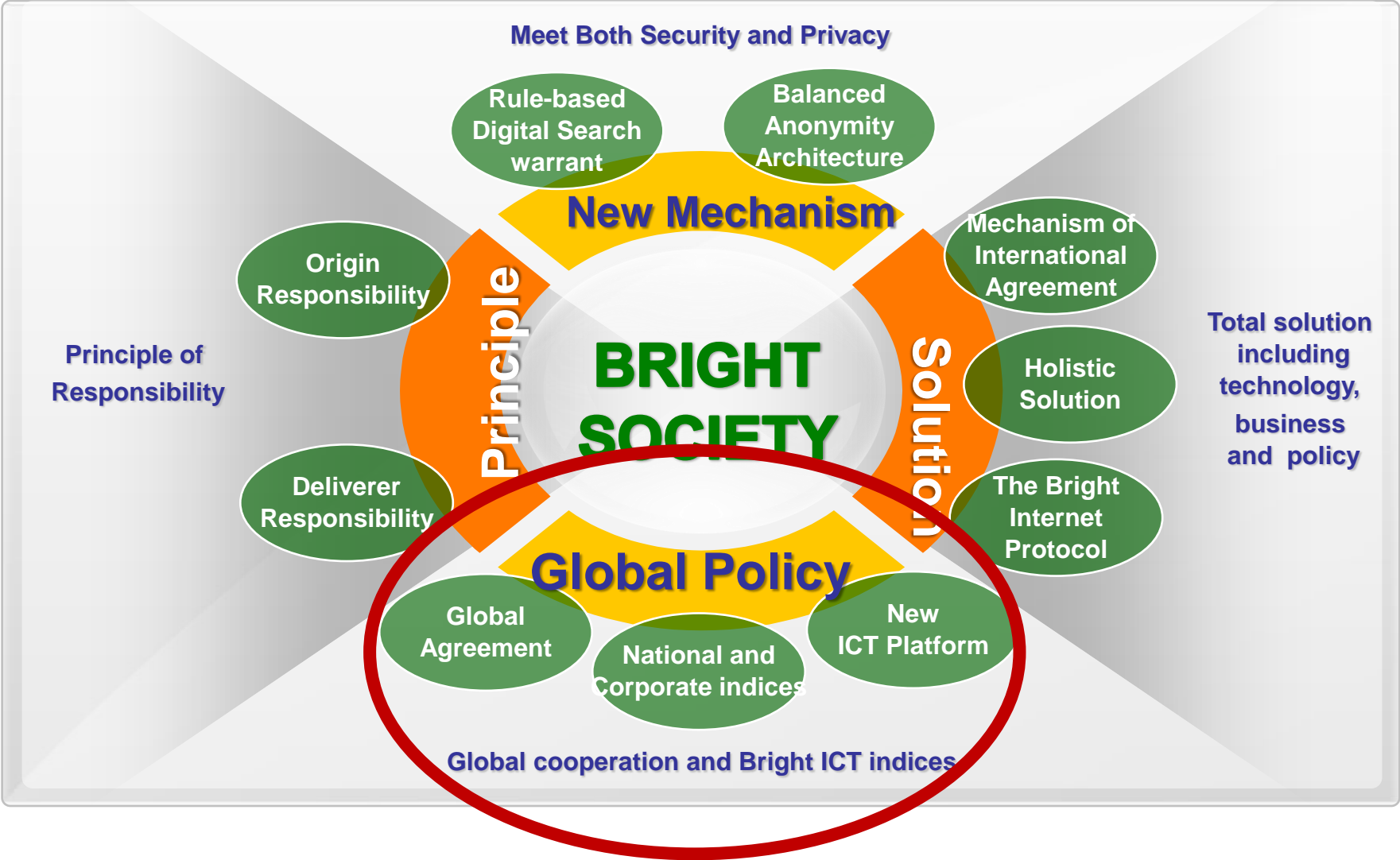
New Mechanism

Balanced Anonymity Architecture that meets both privacy and security



What is new with the Bright ICT Initiative?

Ten Framework Approaches



Expanding the IS World

- 🌐 Business Information Systems
 - ➔ Global Societal Knowledge Infrastructure
- 🌐 Theory Development
 - ➔ Problem Solving
- 🌐 Empirical Validation
 - ➔ Design the Future
- 🌐 Create Academic Knowledge
 - ➔ Create Value for the Society