



The Future of Cloud Computing: Elasticity, Legacy Support, Interoperability and Quality of Service

Introduction and overview of the workshop

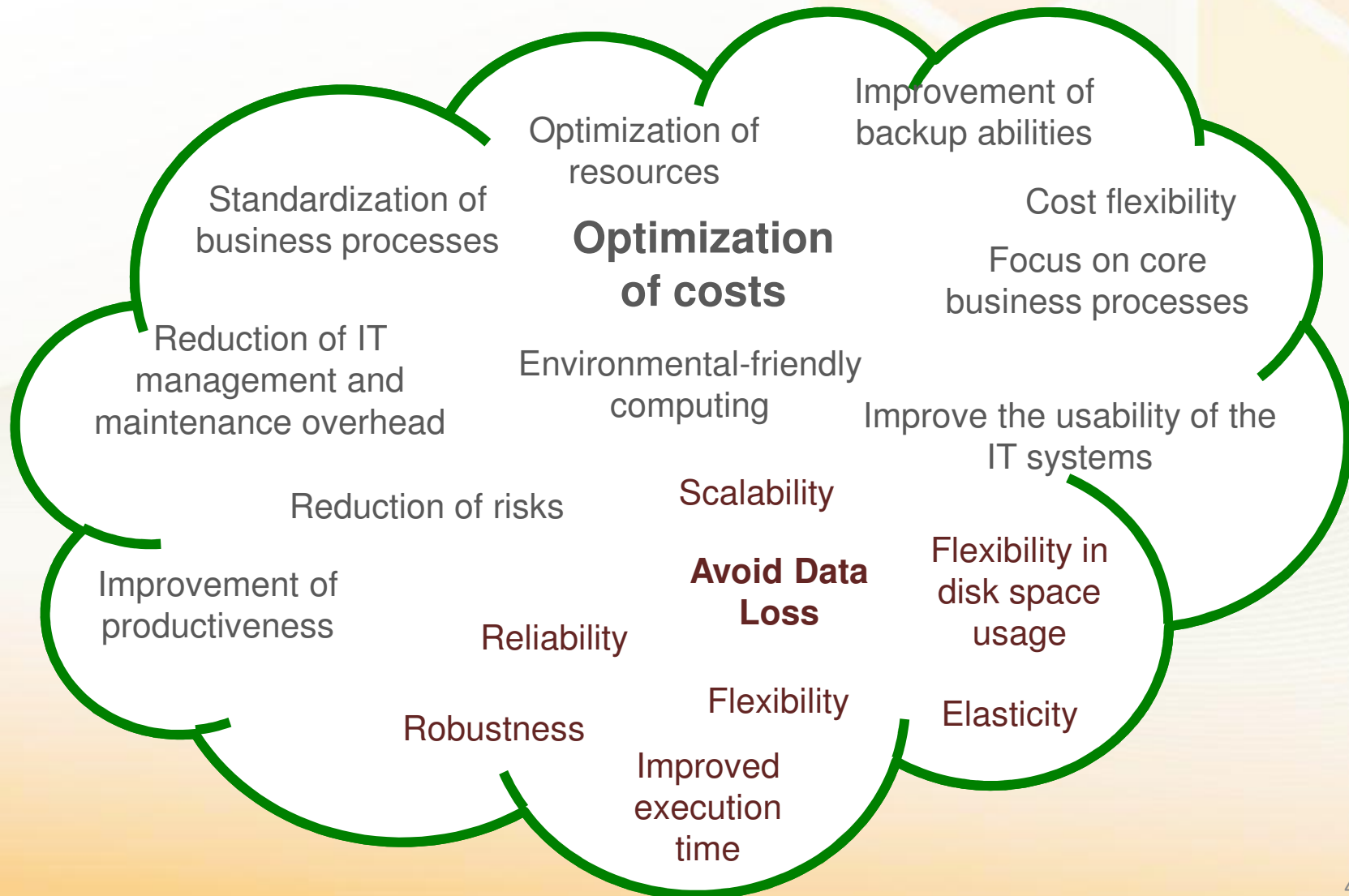
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The SUCRE project

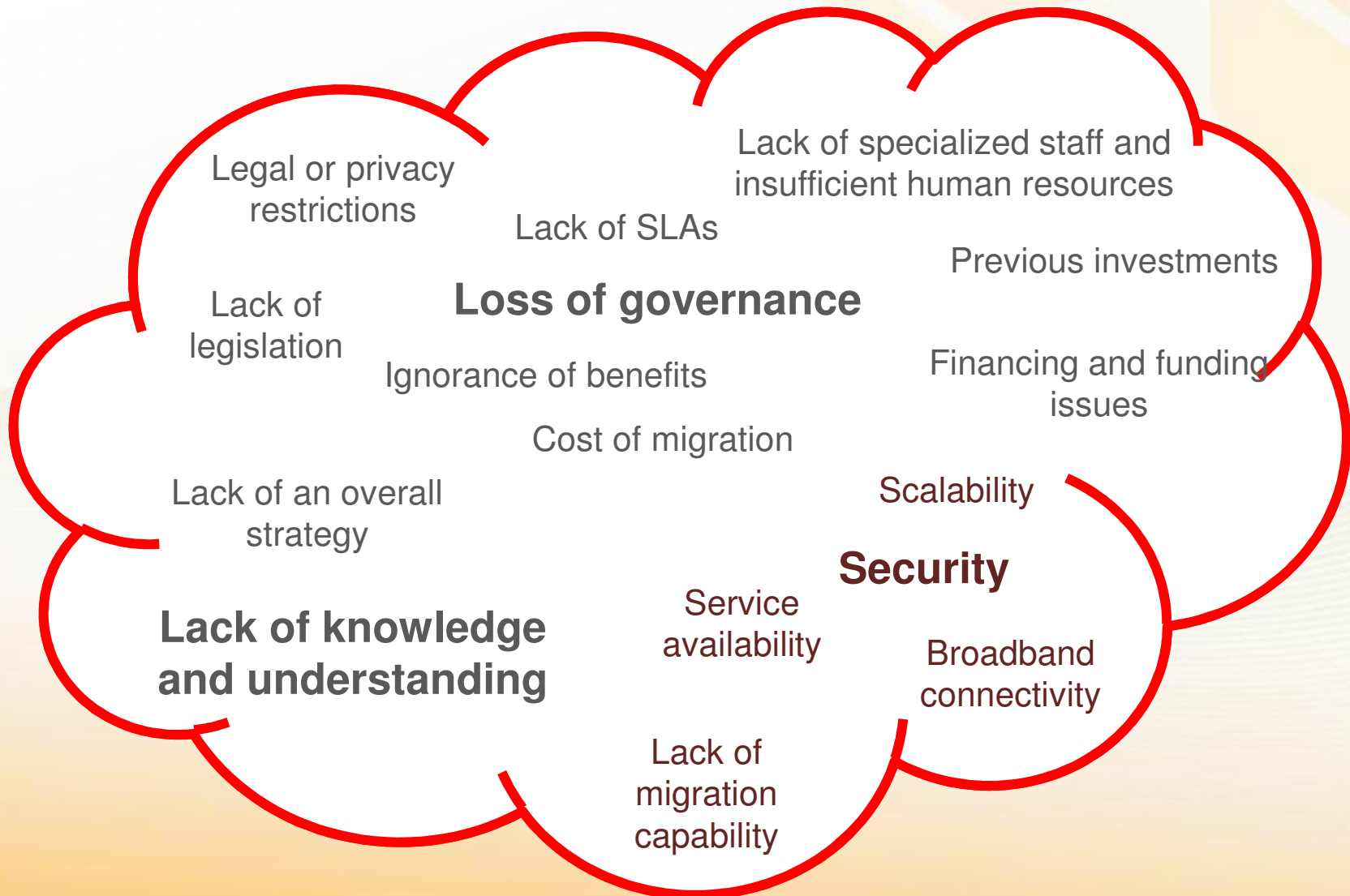
- investigates and suggests means for reinforcing the **adoption of open source cloud solutions** by key stakeholders
- facilitates the **interaction** between academia and industry as well as among industry players
- sets up an all-embracing still focused **supporting mechanism** available to all EC funded projects in the areas of Cloud Computing and Open Source

- **Use cases:** Usage of open Clouds in high-impact domains
 - Public sector
 - Healthcare provisioning industry
- Tools and mechanisms for **EU-Japan collaboration**
 - EU-Japan Expert Group
- **Dissemination Media:** magazine, videos, portal
 - Addressing both specific and broader issues/audiences
- **Workshops, Young Researchers Forum, Networking, Events**
 - Community oriented workshops, EU-Japan discussion, Young Researchers and Cloud Computing, Dialogue among and between the cloud and open source communities

Benefits of Cloud Computing



Obstacles in adoption of Cloud Computing



EU-Japan Experts Group: Recommendations on Cloud standardization

- **General status and regional approaches**
 - Standardization can be pursued through adoption of Open-Source Clouds
 - At the same time, marketing issues should not be neglected
- **Industrial collaboration and diversification**
 - Cooperation is key to standardization, although companies choose to remain different in technology aspects on which they are holding a leading position
 - Diversity and overflow of standards can be tackled by selecting highly specific issues at an international level, e.g., between Japan and the EU
- **Challenges and ongoing efforts in all Cloud layers**
 - SaaS and PaaS are more challenging due to greater diversification
 - IaaS needs further standardization efforts

Findings on Data portability and Cloud lock-in

- Data portability is a **more politically than technically pressing** issue
- **Specialization vs. Portability**: Two contradictory values
- **Standardization and security** aspects are important to be addressed
- Cloud providers will be **convinced to fully support** data portability by
 - Client demand (which leads to increased revenues)
 - Regulatory frameworks (e.g., the *EU Data Protection Directive*)

Pre-FIA workshop:

- focuses on solutions related to cloud elasticity, migration and interoperability
- addresses issues related to the level of adoption of Cloud Computing in Europe as well as technological challenges
- hosts presentations delivered by keynote speakers and EU-funded projects

Aim is to:

- Inform participants on cutting-edge developments in the area of cloud computing
- facilitate exchange between speakers and participants

- Cloud Computing from the Business Perspective
 - **Legal** and **economic** aspects, SLA
 - **Innovation** and differentiation in the Cloud market place
 - **Interconnection** of public and private clouds vendors
 - Cloud **migration** issues
- Overcoming Technical Challenges in Cloud Computing
 - **Quality** measures, **monitoring** mechanisms, **prediction** models, and **adaptive** policies
 - **Portability** and **interoperability** issues
 - **Elastic resource scaling** in an automated and real-time manner

- **09:45 – 11:00 Keynotes Session**
 - The Expert Group Challenge and the **PaaSage** Response
 - **SeaClouds**: Open solution brings Interoperability & Portability to PaaS
 - Cloud Computing – The SME and Industry Perspective
- **11:15 – 12:35 Projects Session**
 - **ARTIST**, a global approach to *cloudify* applications
 - Automatic cloud elasticity with **CELAR**
 - Improving agility of Cloud ecosystems with **MODAClouds**
 - Achieving Cloud Application Portability and Interoperability with **mOSAIC** - an Open-Source API and Platform for Multiple Clouds
- **12:35 – 13:00 Round Table and Open Moderated Discussion**
 - How to engineer modern cloud applications