

## 1<sup>st</sup> Digital Assembly

*Towards a Cloud Computing Strategy for Europe:  
Matching Supply and Demand*  
Brussels, Belgium, June 17th, 2011

# Unleashing the Potential for Innovation of Cloud Computing

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# Main Challenges in the Adoption of Cloud Computing

*European Funding to Help Bridge the Gaps in Cloud Computing*

## Increase of Competitiveness and Productivity

### Innovation Platform for Users

Companies and public administration can cut costs, improve services and support new business/service models

#### Technology Challenge

- **Research** on critical issues to create better clouds
- **Innovation-**focused research
- **Open-source** as innovation model

#### Usability Challenge

- Development and use of **standards** for interoperability
- **Legal** framework for international **data protection** and **privacy**
- Improved **trust** and **security** levels

#### Cultural Challenge

- **Educate** users
- Provide experim. **Testbeds**
- Support **pilot projects**
- **Public procurement** to adopt cloud, open standards and open source

# Critical Research Issues in Cloud Computing

*Research Challenges to Be Addressed by European Funding to Create Better Clouds*

## Cloud Aggregation

Aggregation of resources from diverse cloud providers adding additional layers of service management

## Cloud Management

Delivering infrastructure resources on-demand in a multi-tenant, secure, elastic and scalable environment

## Cloud Enablement

Enhancing platform infrastructure to support cloud management requirements

## Cloud Interoperability

Ensuring that the available cloud services can work together and interoperate successfully

**The Future of Cloud Computing. Opportunities for European Cloud Computing Beyond 2010**, Expert Group Report (<http://cordis.europa.eu/fp7/ict/ssai/docs/cloud-report-final.pdf>)



# Research Focused on Providing Innovation

*Europe to Play a Leading Role Both in Using and in Enabling Cloud Computing*

## Cloud User Innovation

Companies and public administration can cut costs, improve services and support new business/service models

## Software Industry Innovation

New more cloud-friendly services and applications and SaaS offering model

## Opportunities for the European ICT Industry

### Technology Innovation

New components and algorithms to enable next generation clouds

### Service Provider Innovation

New IaaS and PaaS cloud offerings from hosting and telecom companies

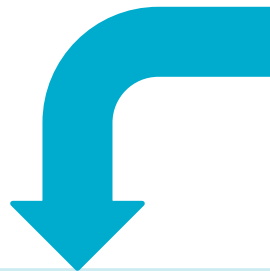
# EU Success Story in Cloud Computing Research and Innovation

*Maximizing Return of Investment in Research*

Flagship EU Project on  
Cloud Computing Research



Innovative  
Technology Spin-off  
**OpenNebula.org**



Management Tool

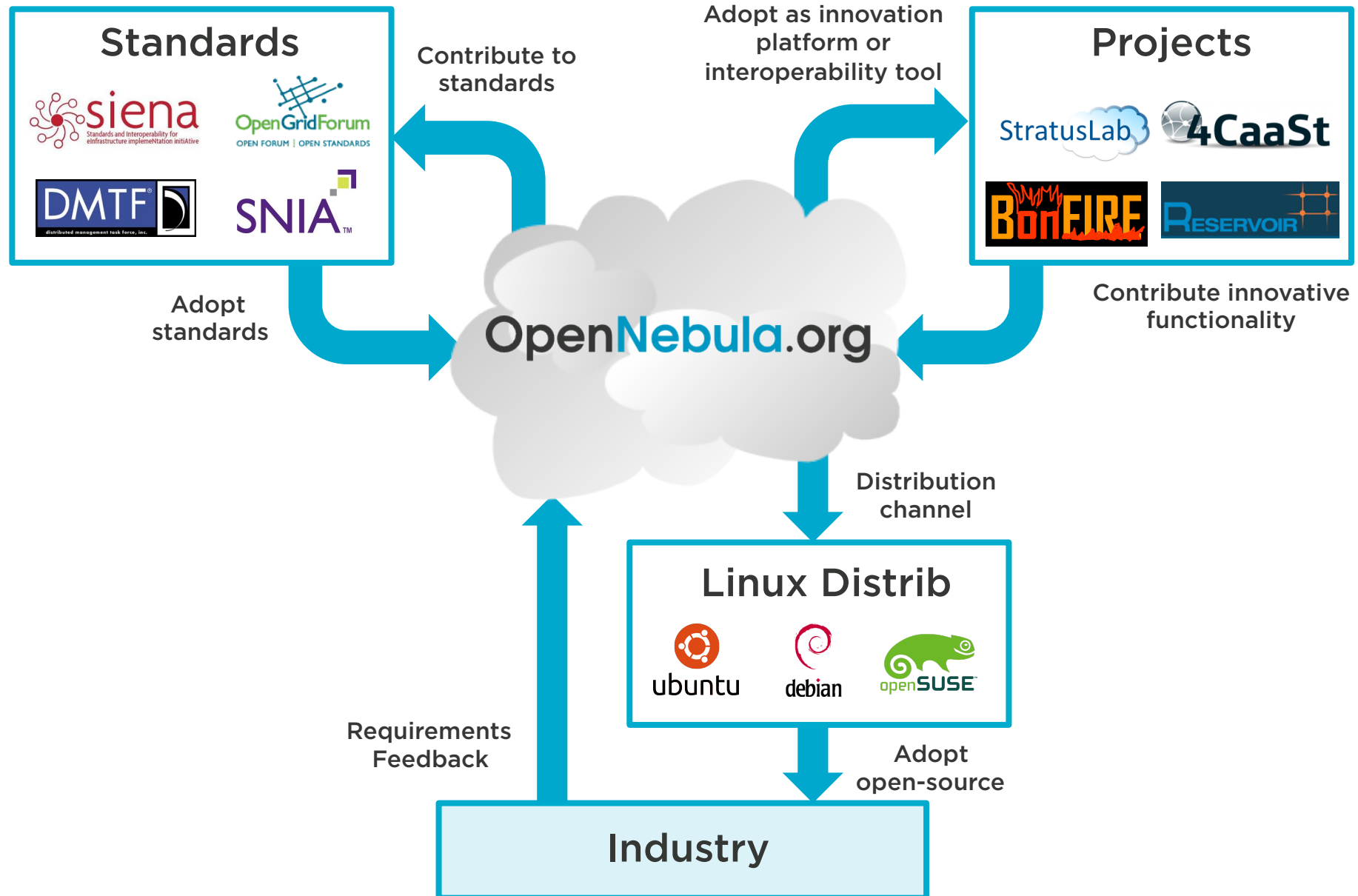


Innovation Platform



# Open-Source as a Innovation Model

*Europe to Play a Leading Role in Building an Open Cloud Ecosystem*



# Questions?

*We Will Be Happy to Answer Any Question*



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