

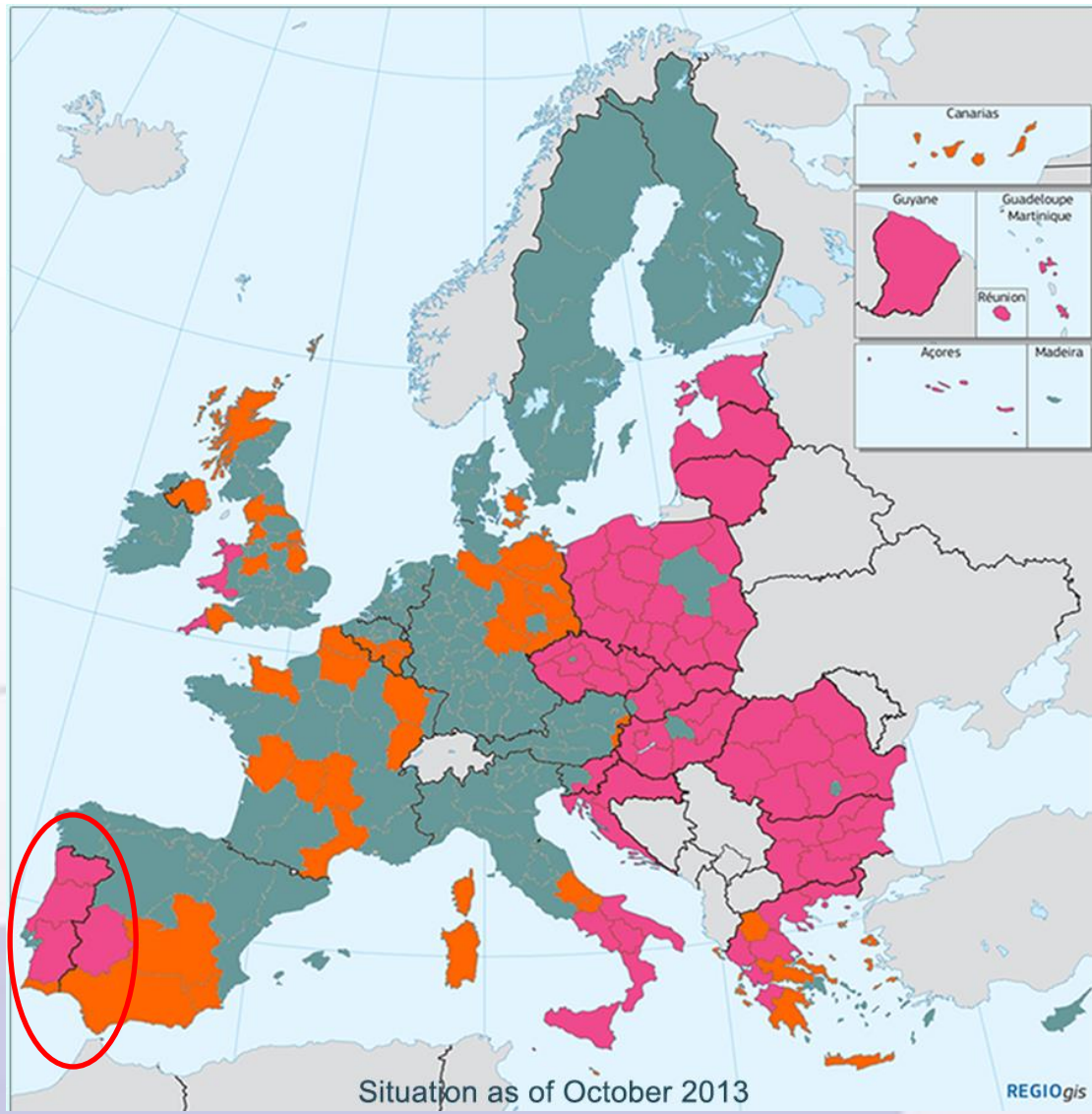
Fostering Cloud Computing Opportunities

Portuguese strategy

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EuroCloud Portugal
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The Portuguese ecosystem..





Economic situation of Portugal

Global Competitiveness Report

2005 - 22nd position, ahead of countries and territories like Spain, Republic of Ireland, France

2007 -2008 – Portugal stepped down on the 40th position out of 131 countries and territories

2009 - Portugal went even further down as Portugal was placed as the 43rd out of 134 countries and territories

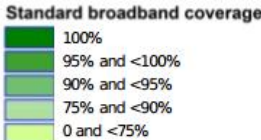
Solid background for ICT development

Portugal made major investments in broadband coverage, particularly for next generation access.



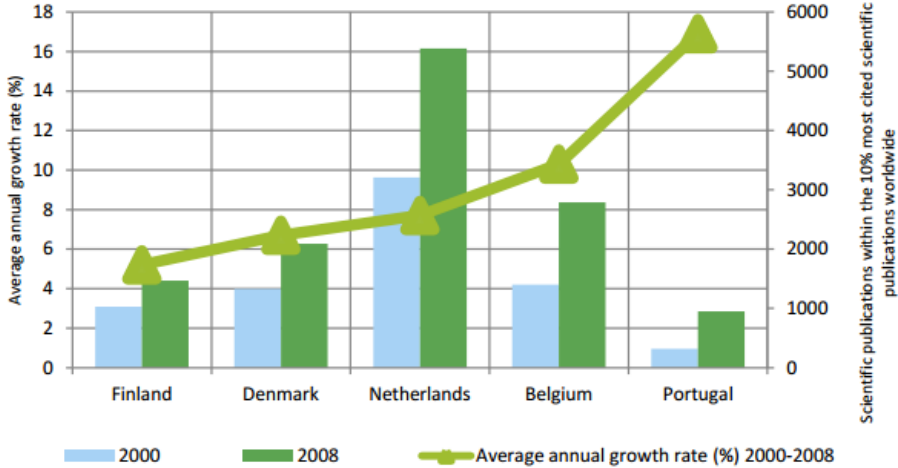
DATA

Fixed Internet access 2,4 million
 Mobile Broadband Internet access 3,5 million
 Optical Fibre access 0,4 million



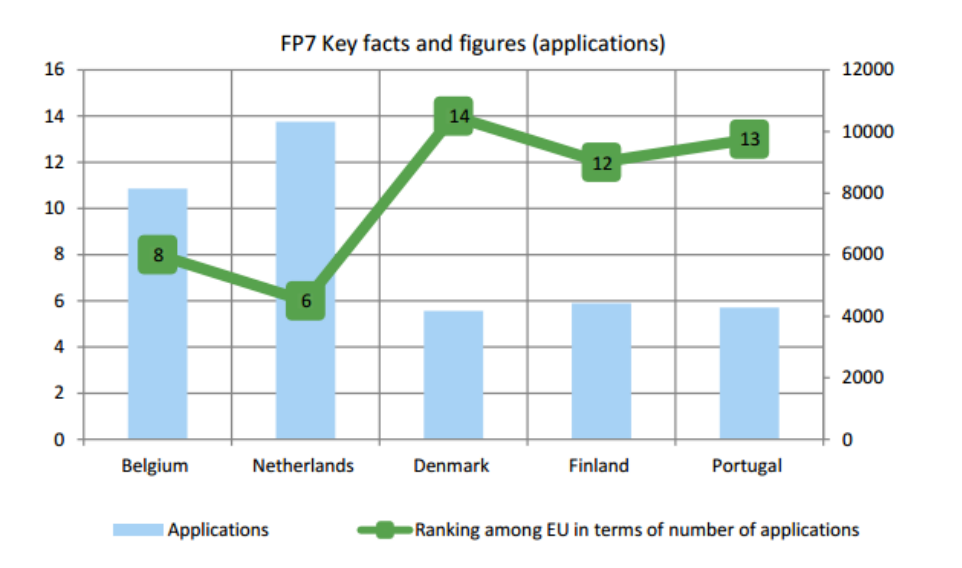
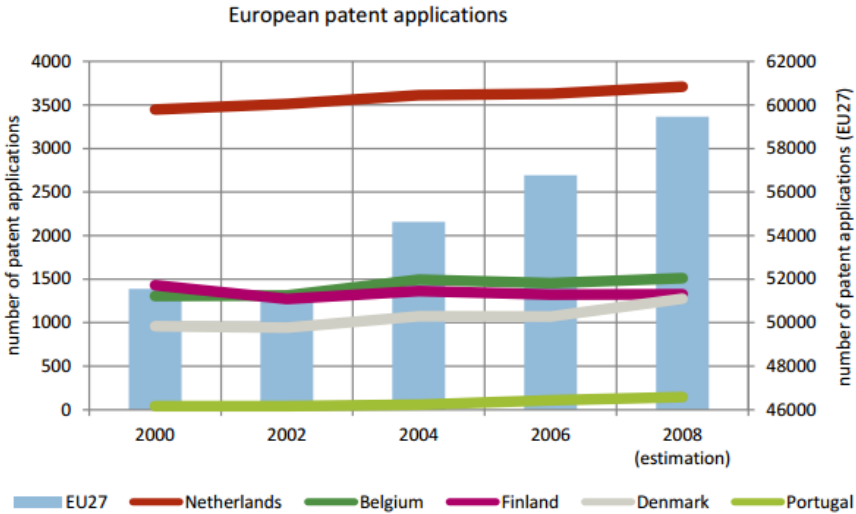
Source: BCE 2011

Scientific publications within the 10% most cited scientific publications worldwide

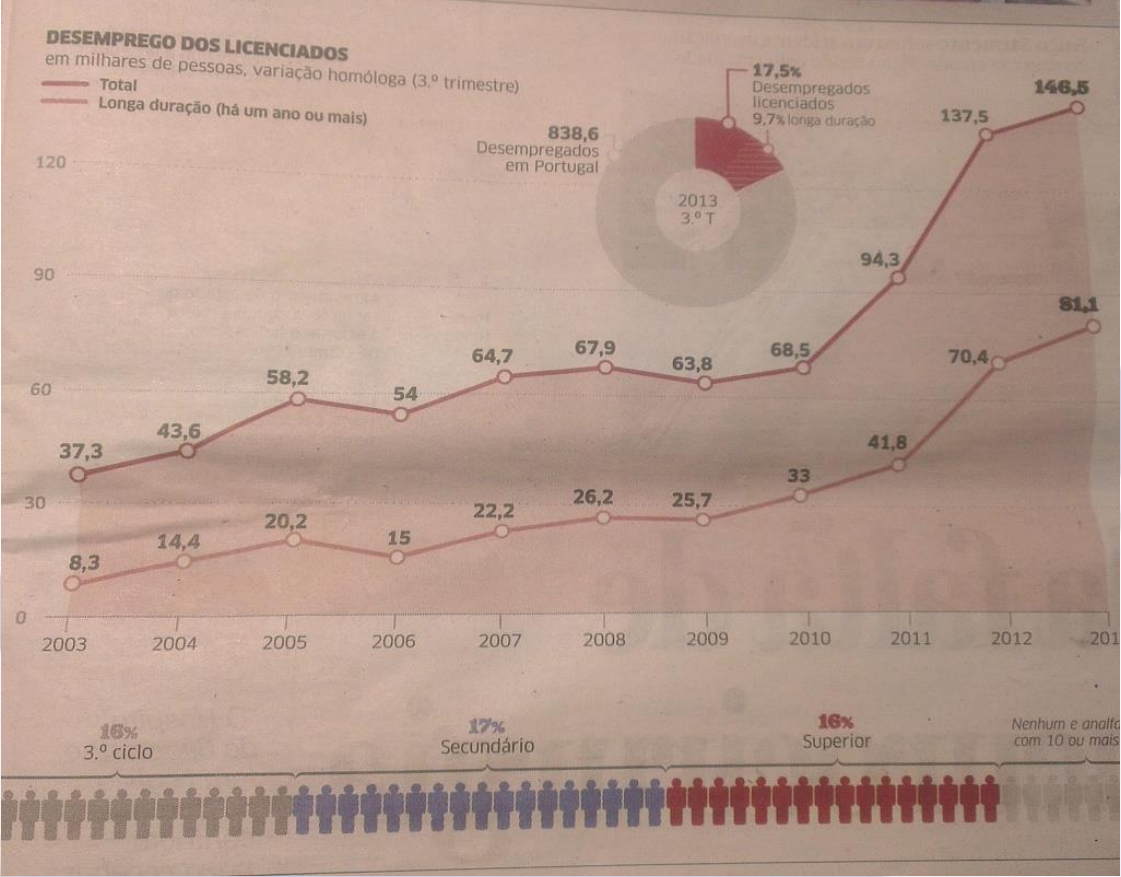


Source: Academy of Finland, 2012

Important challenges to Address...

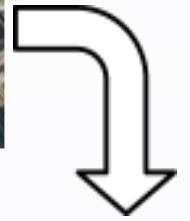


Important challenges to Address...



Source: Portuguese Newspaper – JN , 5th of February 2014

The Portuguese ICT Industry



Cloud First!

A network diagram featuring several stylized blue clouds of varying sizes. The clouds are interconnected by thin grey lines that pass through small orange circular nodes. The background is a light blue gradient with faint horizontal lines.

Portuguese ICT Industry

Portugal Telecom as a Reference



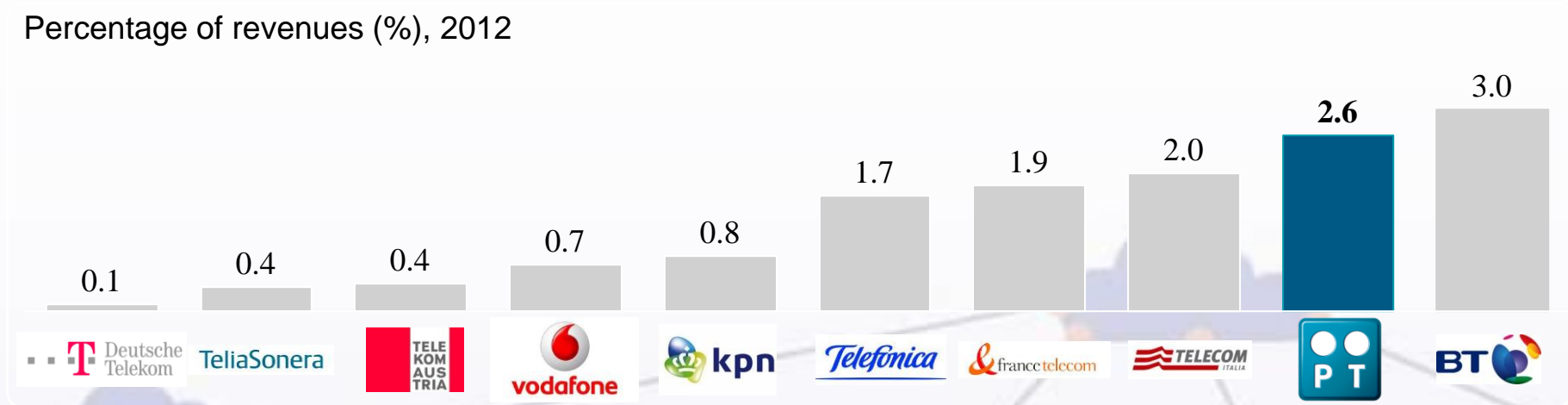
Portugue ICT Industry

Portugal Telecom as a Reference

INNOVATION AT THE CORE

Investment in RDI¹

Percentage of revenues (%), 2012



4th country with 100% broadband



Meo, an IPTV case-study

meo

Best European fibre optic network



1st prepaid card with unlimited



90% coverage by YE2012



Innovative convergent offer





EuroCloud Award 2013

Portuguese Best Start-up

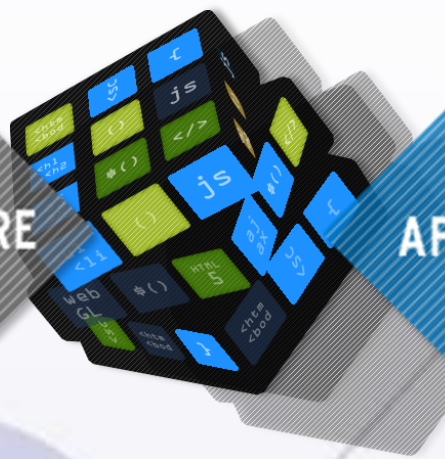
JScrambler

App Protection in the Cloud

```
function ImportantFunction(a,b)
{
  return "TIZEN APP";
}
```

```
document.getElementById
("demo").innerHTML=ImportantFunci
on(4,3);
```

BEFORE

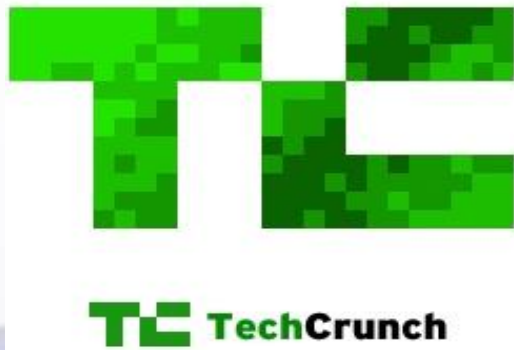


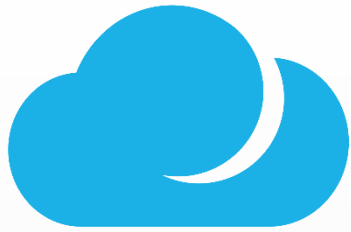
AFTER

```
;eval((function(V9){for(var
N9=0,u9=0,Q9=function(V9,C9)
{for(var
R9=0,w9=0;w9=32&&x9<=127)
{R9+=x9-32;}return R9};u9=
(0x74,50.)?(40,8):
(7.80E1,83.0E1))&&c9.charCode
&((0.90E1,99.)>=
(21,39.)?(97,5):
(36))==(32.,142.)<
(40.,79)?3:0x2<=(84.,6.770E2)?
(5.86E2,101):
(132.,6.95E2)>=7.29E2?3:
(0x33,34))&&c9.charCodeAt
(((2.030E2,0x1)>=12.98E2?
(3.87E2,\0\0):
(0xF6,12.4E1)>=70?(92.,7):
```

JScrambler

App Protection in the Cloud





lunacloud

**EuroCloud Award 2012
Portuguese Best Start-up**

A background graphic showing a network of light blue clouds connected by thin grey lines. The clouds vary in size and are scattered across the lower half of the slide.

European-based (headquartered in Portugal, with offices in the UK and France)

Pure-play cloud services provider that delivers **reliable**, elastic and **low cost** cloud infrastructure services



Cloud Server = RAM + CPU + DISK

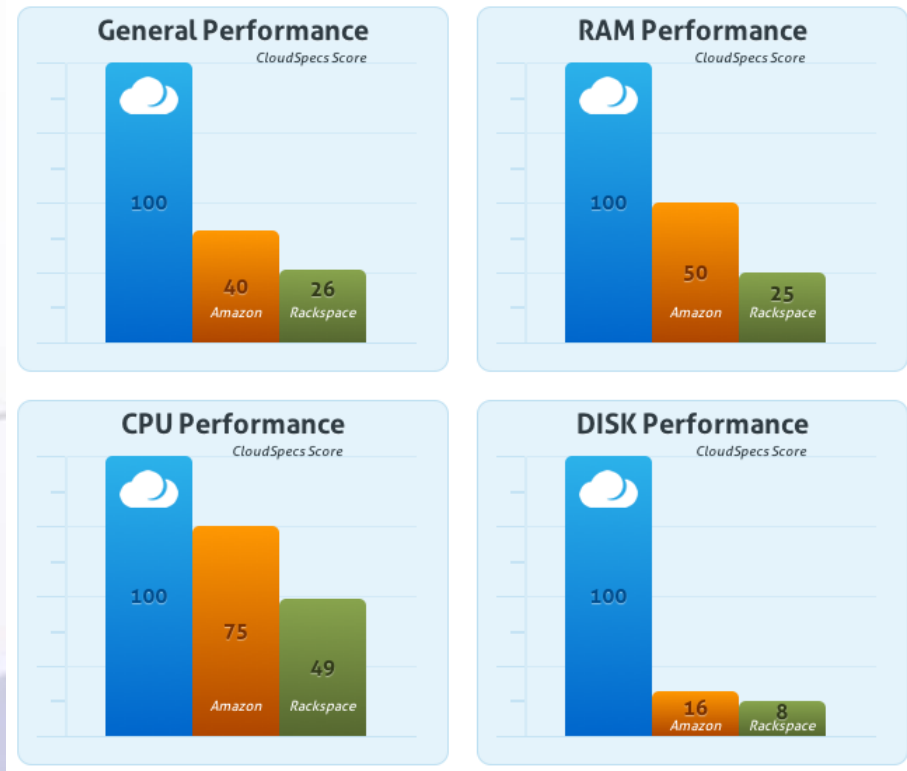


Cloud Storage = DISK

Lunacloud

Cloud Infrastructure-a-a-Service

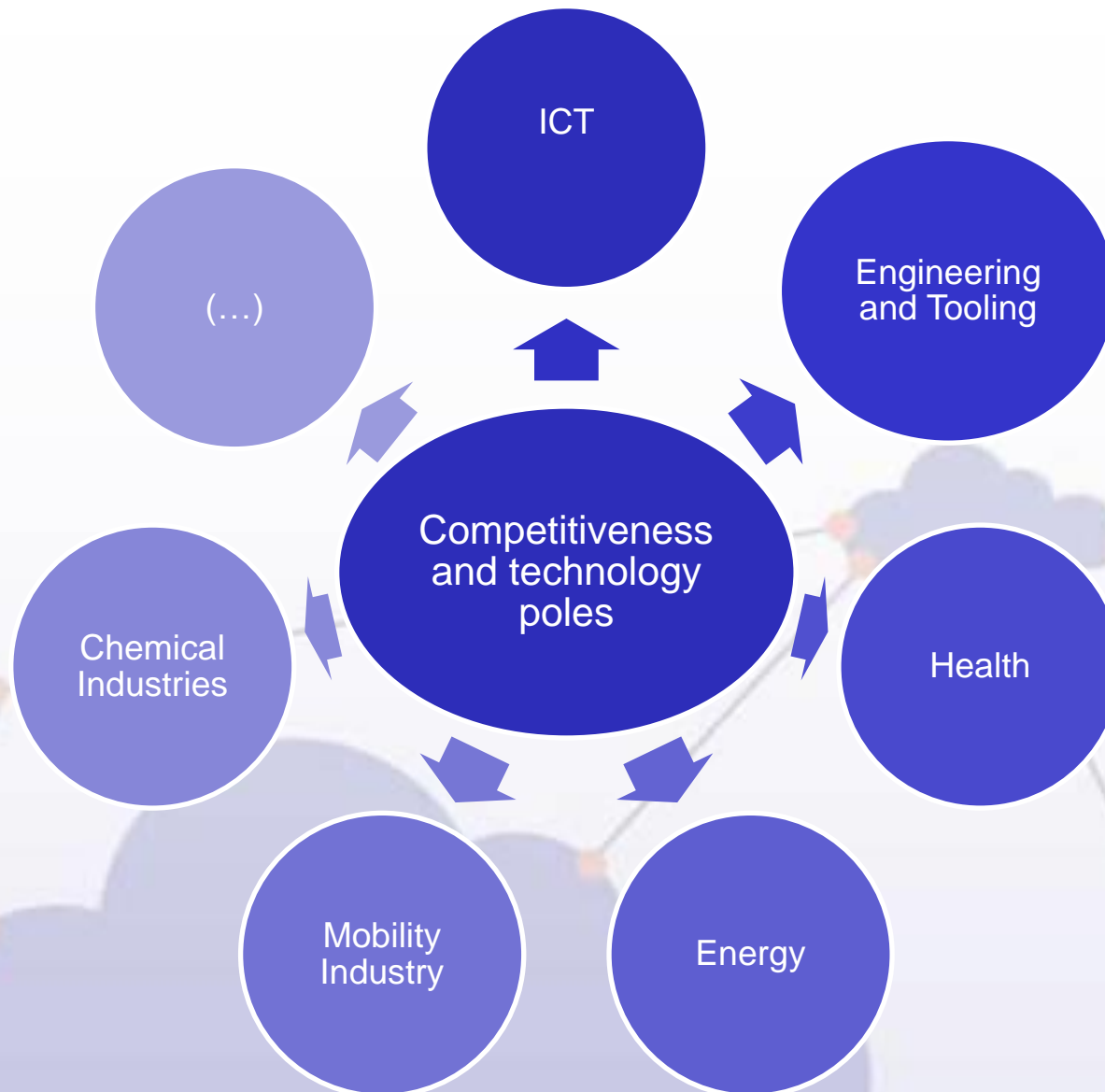
An independent US-based cloud analyst group, **Cloud Spectator** released the **CloudSpecs Performance Report** in which it underlines that **"Lunacloud outperforms Amazon and Rackspace consistently over a period of 30 days"**.



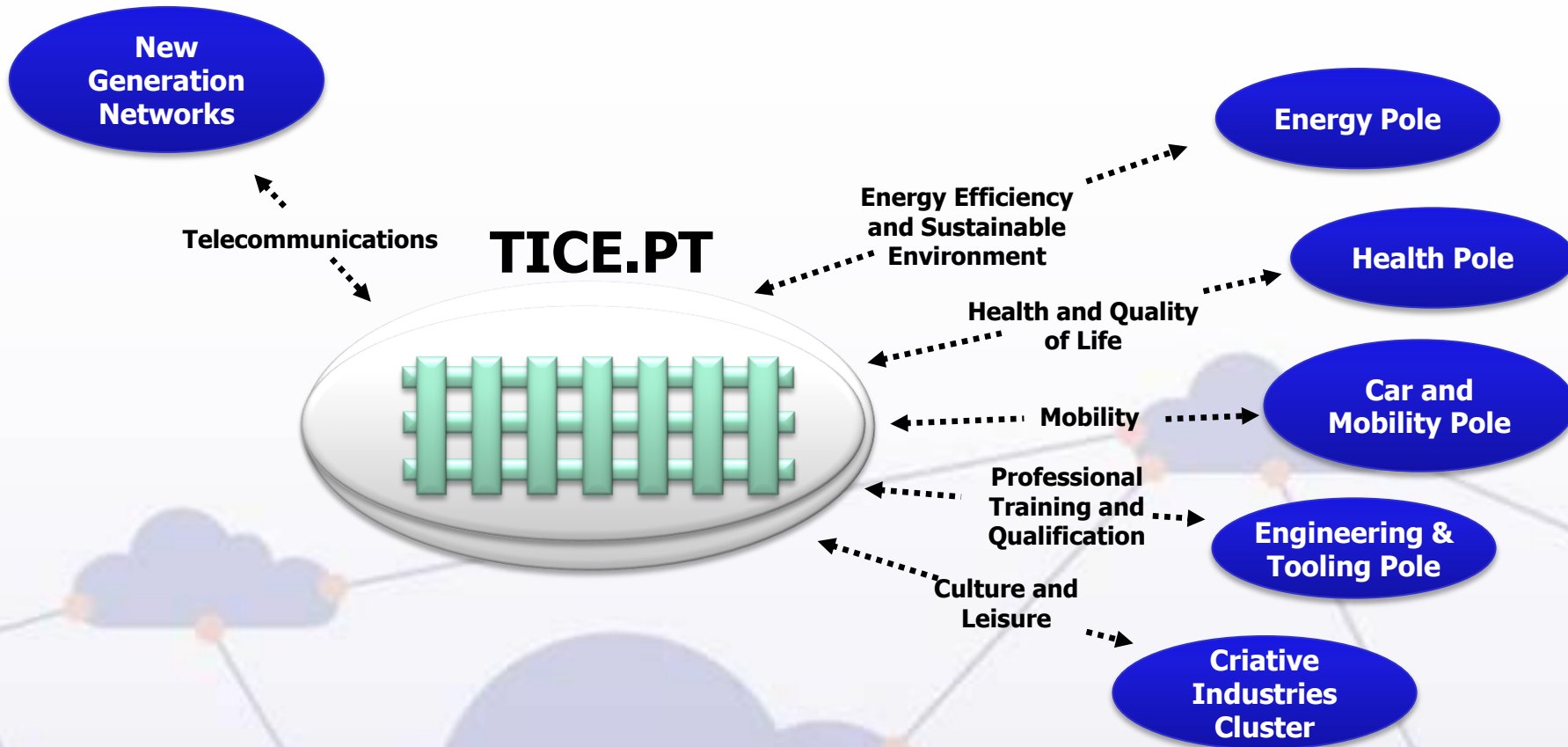
Portuguese reference framework and priorities for **structural funds**



The background features a network diagram with several blue cloud shapes of varying sizes connected by thin grey lines. The nodes are small orange circles. The overall aesthetic is clean and modern, with a light blue gradient background.



ICT – Cluster TICE.PT

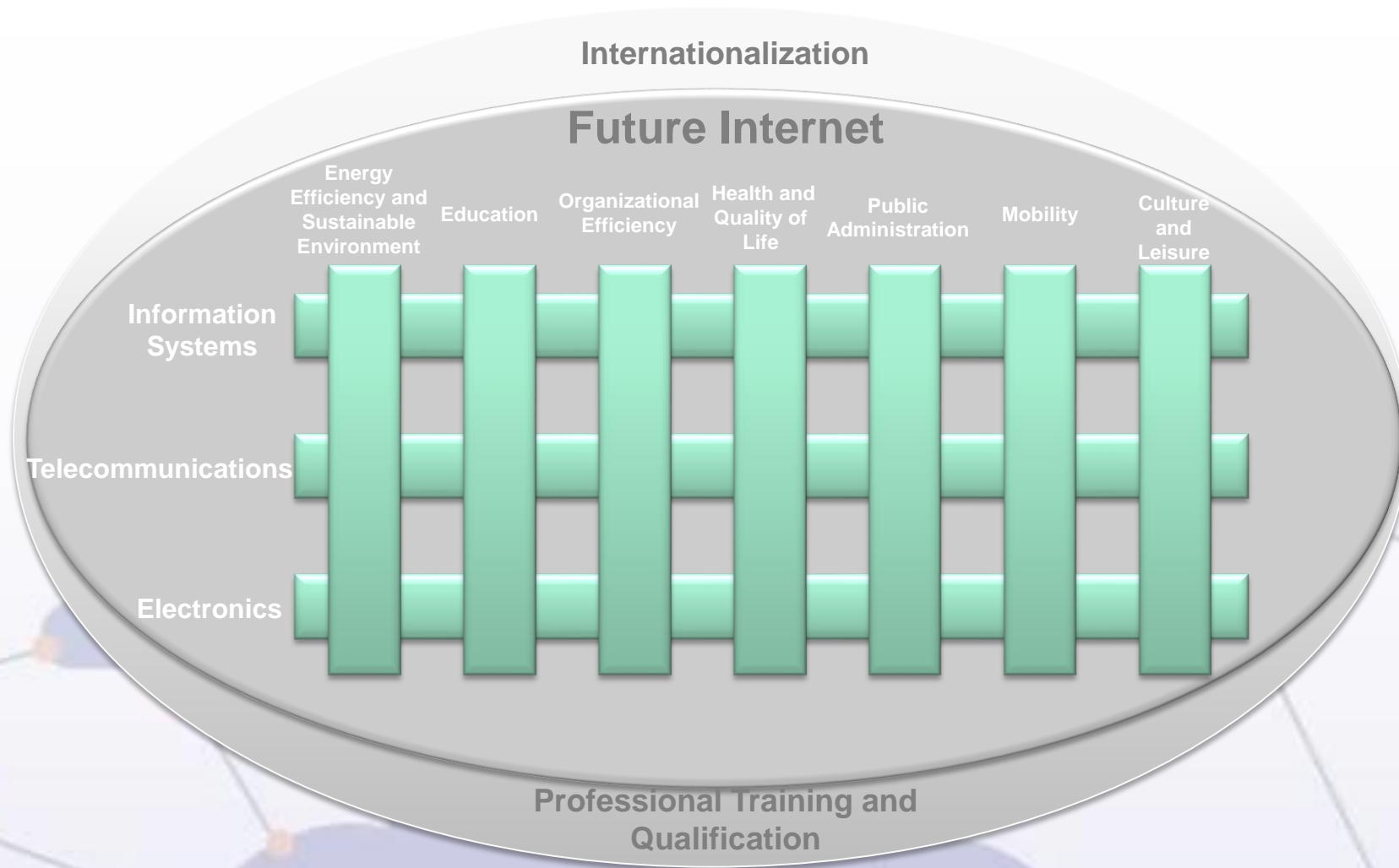


Cloud First?

A network diagram with several blue cloud shapes of varying sizes connected by thin grey lines. The nodes are small orange circles. The background is a light blue gradient.

TICE.PT

Collective Efficiency Strategy - CES



TICE.PT

Collective Efficiency Strategy - CES



- CardMobili • Netcaos Software • InterHost • Muchbeta • MainRoad • Evolve •
- Eurotux • Neeaconsulting • APOND • Ezinow • Portugal Mail • Echiron •
- PrimaveraBSS • PHC • Hitachi Consulting • Galileu • Winsig • Prologica •
- Ambidata • CIL • I2S • ST-SecurFile • Tecnet • Transdev • UbiWhere •
- StrongStep • Brocade • OZONA • CREATE.IT • Wavecom • EXECPLAN •
- Carlos Martins • Indra • MainRoad • CISCO • WEDO Technologies • Produtiv •
- AnubisNetWork • Portugal Telecom • ISEG • Telvent • Knowledge Inside •
- GISGEO • Hbarbosa • URIA - Uría Menéndez • DigiUtopika •
- Sonae Distribuição • Bluekora • Municipia • APC • IBM • Katbyan • INOK •
- ORZARE • LabOrders • ARQUO Technologies • Optimizer • Multicert • Microsoft •
- EMC • DELL • Refer Telecom • OPT • OutSystem • Link • Fermento •
- HIVE • INOVA Mais • APDSI • UP • Politécnico do Porto • UTAD • IST • UL • FCCN •
- UNL • VMUSE • J Canção • Novabase • NSN • Rumos • Artvision •
- PNMsoft • DevScope • Rupeal • HP • Deloitte • IDC • ClaraNet

TICE.PT

Collective Efficiency Strategy - CES

EEC	Prioridade Tecnológica	Nº proj	Orç (M€)
Polo das TICE	Desenvolvimento de plataformas, produtos e serviços que promovam a criação de um mercado aberto e normalizado de <i>Cloud Computing</i> , nas áreas de IaaS (infraestrutura como um serviço) e SaaS (<i>software como um serviço</i>). ...	23	13,0
Polo da Saúde	Desenvolvimento de produtos ou processos inovadores para diagnóstico, prognóstico, tratamento ou prevenção de doenças, lesões ou deficiências	23	13,0
Cluster Habitat Sustentável	Desenvolvimento de materiais e produtos inovadores para a construção sustentável - ambiente construído saudável baseado na utilização eficiente de recursos e em princípios ecológicos	15	7,0
Polo das Tecnologias de Produção	Desenvolvimento de sistemas de produção inteligentes que incorporem novas funcionalidades de comando, controlo ou gestão	10	6,3
Polo da Moda	Desenvolvimento de novos produtos na fileira da moda com desempenhos significativamente acrescidos nos domínios do conforto, saúde, segurança, ecologia e sustentabilidade	10	4,5

Fonte: Sistemas de Monitorização do QREN e dos seus PO (15/09/2012)

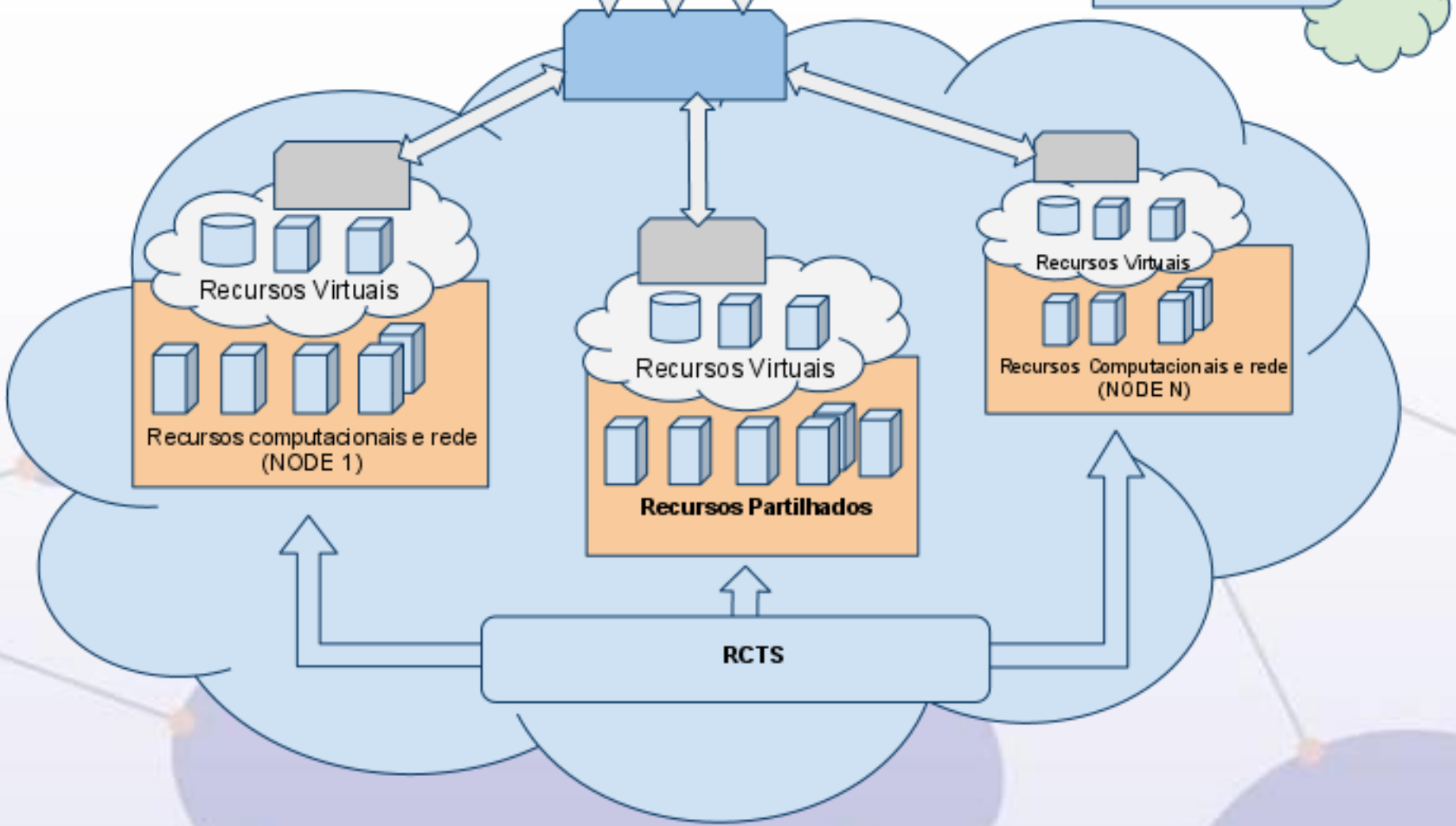
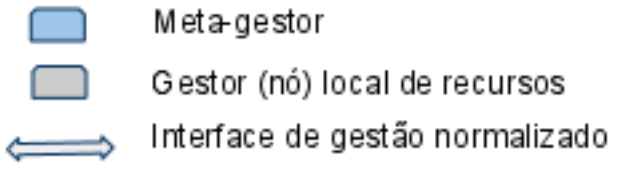
CloudAnchor *Reference Project*

Leverage the development of an
open Cloud Computing market



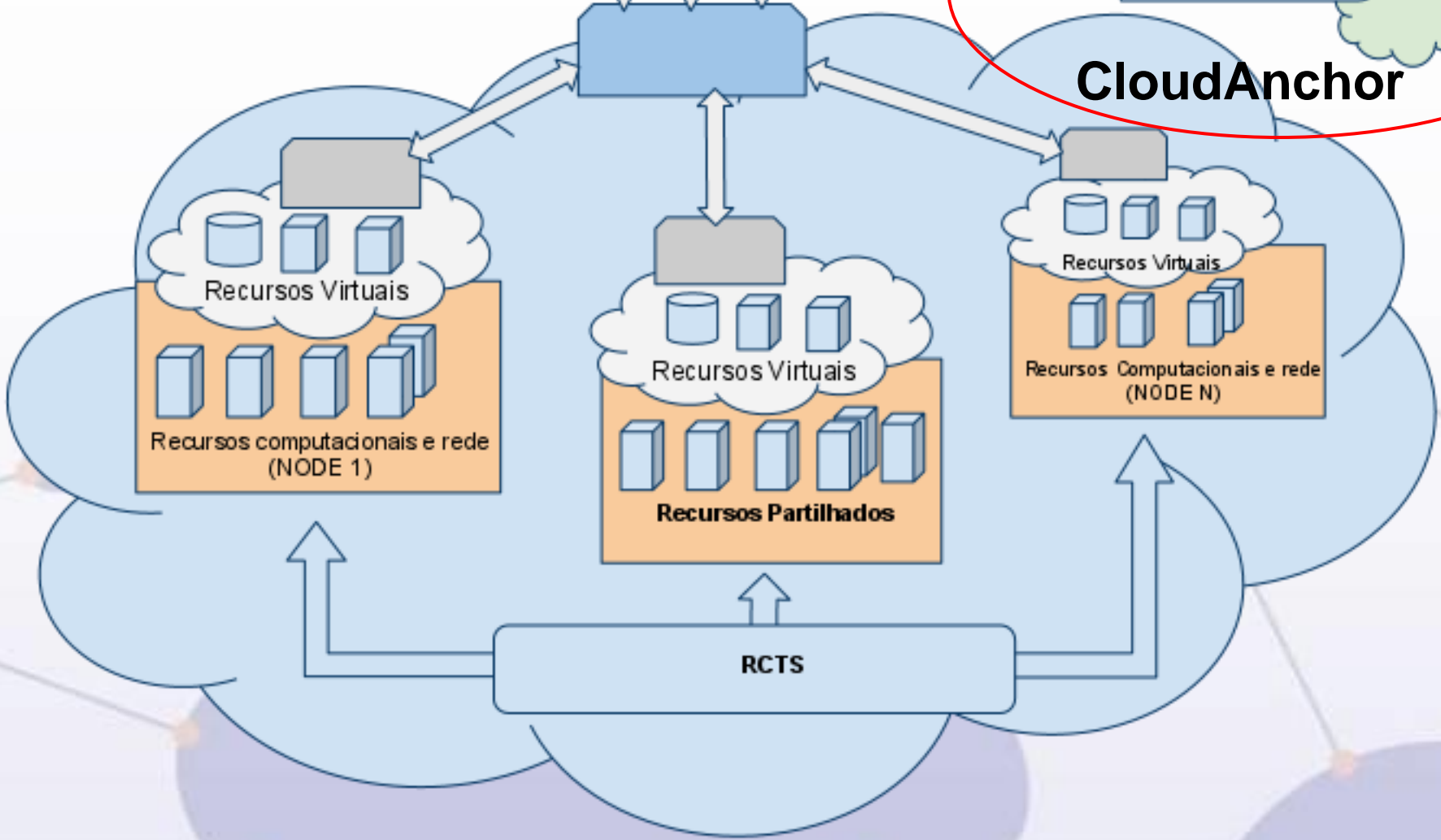
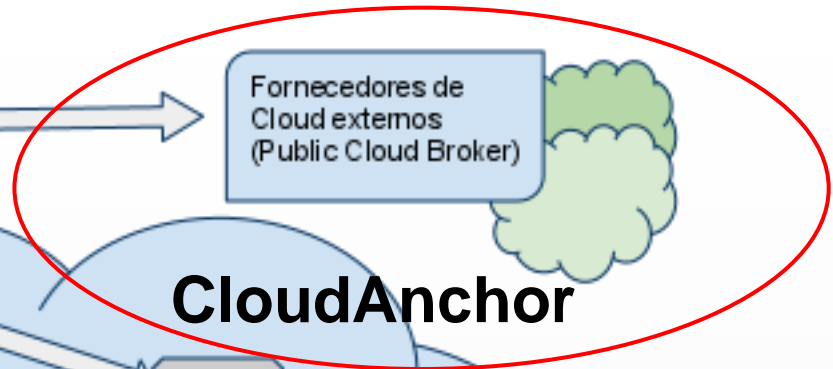
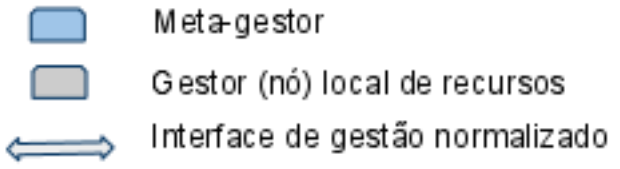
- Escalonamento
- Aprovisionamento
- Monitorização
- Interligação de rede e acesso

- Autenticação RCTSaai)
- Autorização e controlo
- Políticas de utilização de recursos



- Escalonamento
- Aprovisionamento
- Monitorização
- Interligação de rede e acesso

- Autenticação RCTSaai)
- Autorização e controlo
- Políticas de utilização de recursos



CloudAnchor

1) Companies

- Vmuse (Startup)
- MultiCert
- PT
- EuroTux

2) R&D

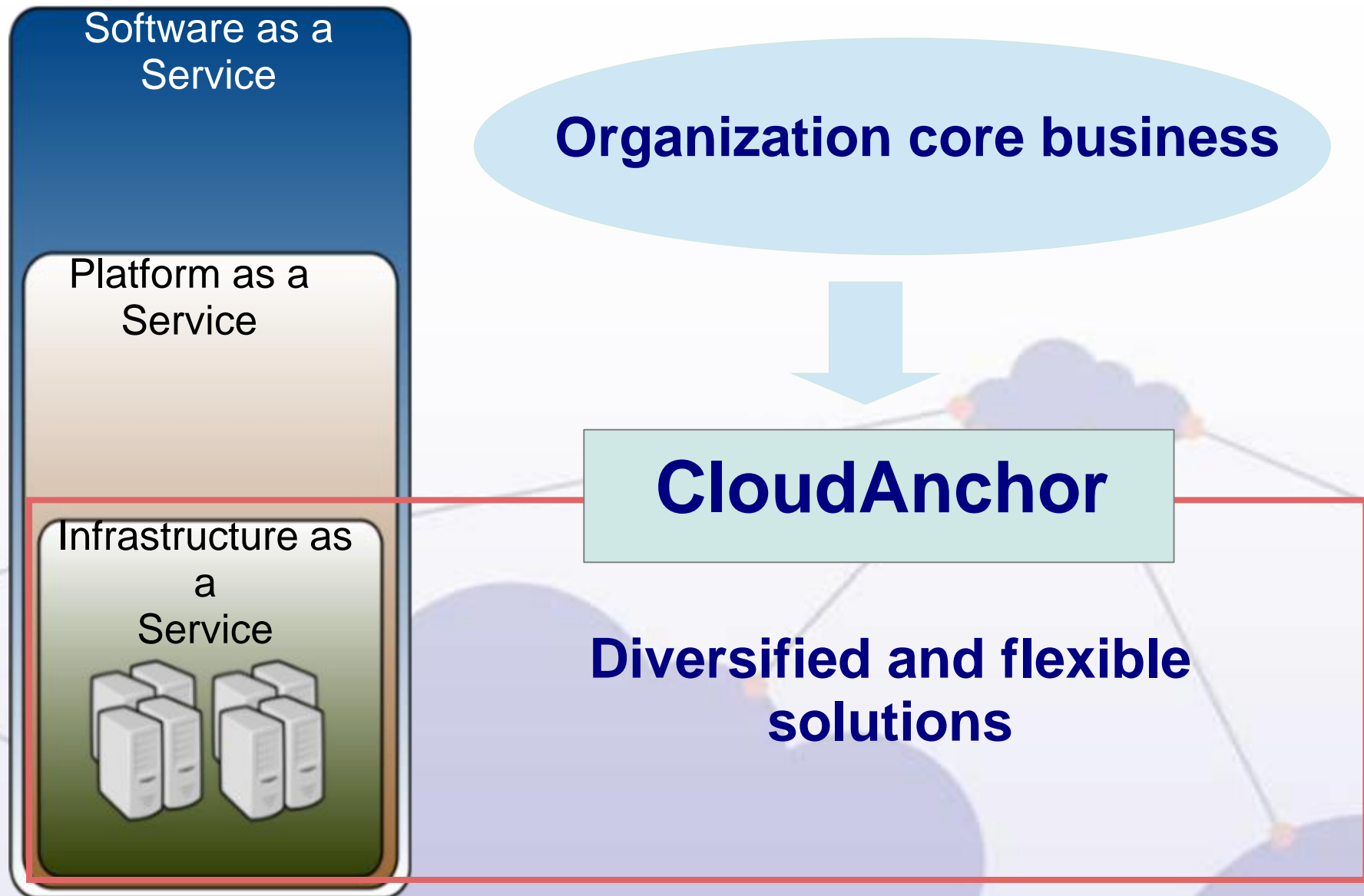
- UP
- IT
- UMINHO
- ISEP

3) External Advisory board

- IBM
 - MICROSOFT
 - HP
 - APC
 - ClaraNet
- 

CloudAnchor

Main Goals



CloudAnchor

Main Goals

Trustworthy, dynamic and open Cloud Computing market

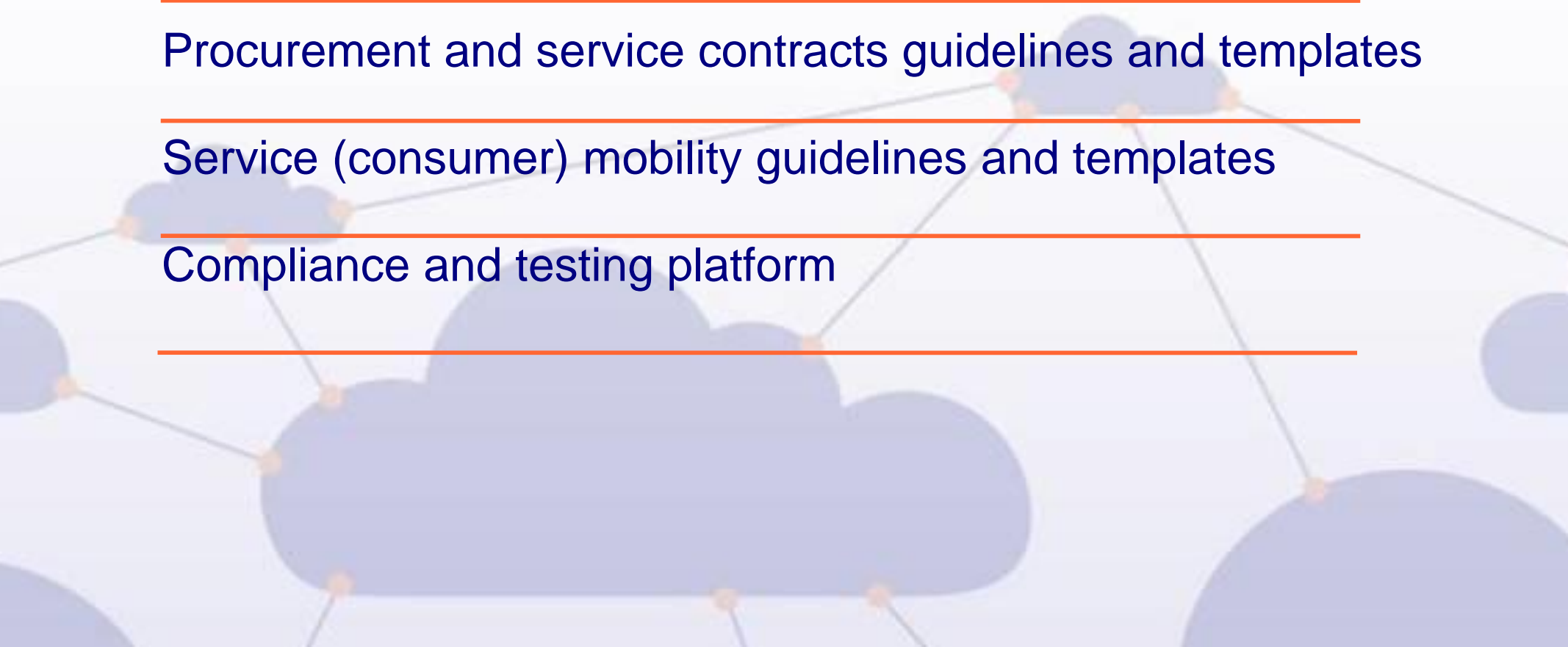
Certification and normalization models

Software package for brokering and mobility

Procurement and service contracts guidelines and templates

Service (consumer) mobility guidelines and templates

Compliance and testing platform



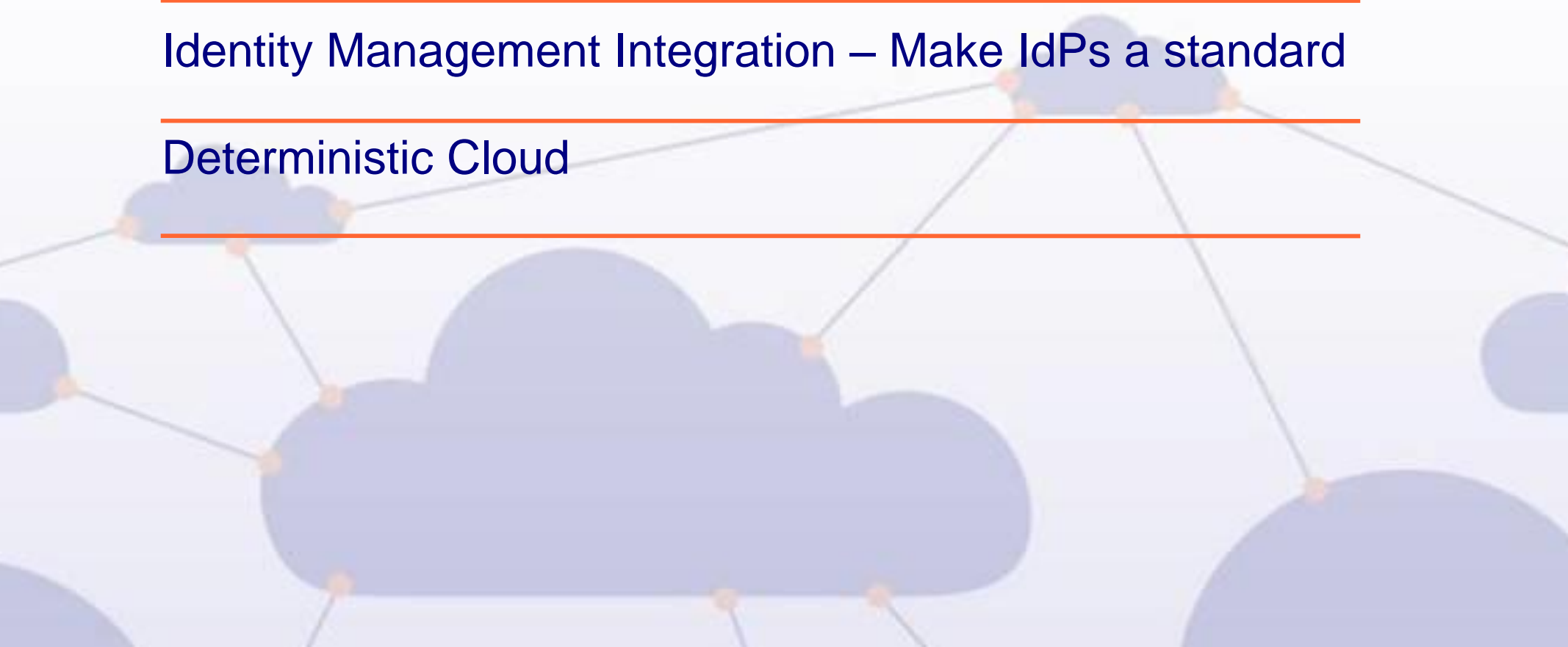
Challenges Identified

Service Level Agreement frameworks and interoperability

Cross-Selling frameworks

Identity Management Integration – Make IdPs a standard

Deterministic Cloud



Lessons Learned

Work in clusters and in a open way

Specialization is good but can “kill” you

Identify the leaders but work with the followers

Lead by example

Internationalization is the key success – Europe and abroad

Fostering Cloud Computing Opportunities



Main Challenges

Increase benchmark with FP7/H2020 funded projects

Reduce the complexity in the funding instruments

Increase innovation and knowledge transfer to industry

Promote entrepreneurship

Promote high skilled employment

Promote cooperation

Promote cooperation tools



Why is this important for Cloud?



A reformed Cohesion Policy for Europe

The main investment policy for jobs and growth

Better focus on results



Simplification



Thank you very much!

