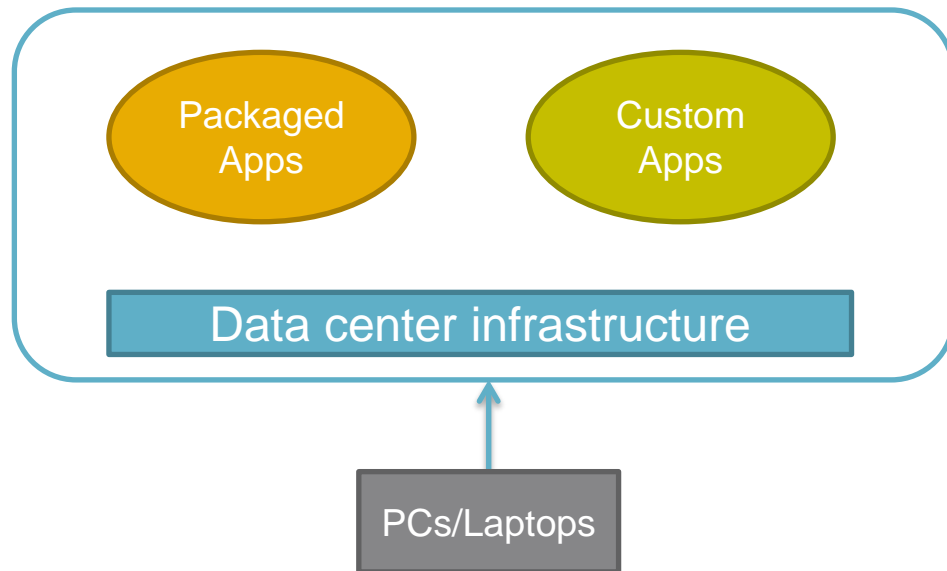# What to think when planning for Cloud solutions

Bjorn Lindell (IT-department SLU)

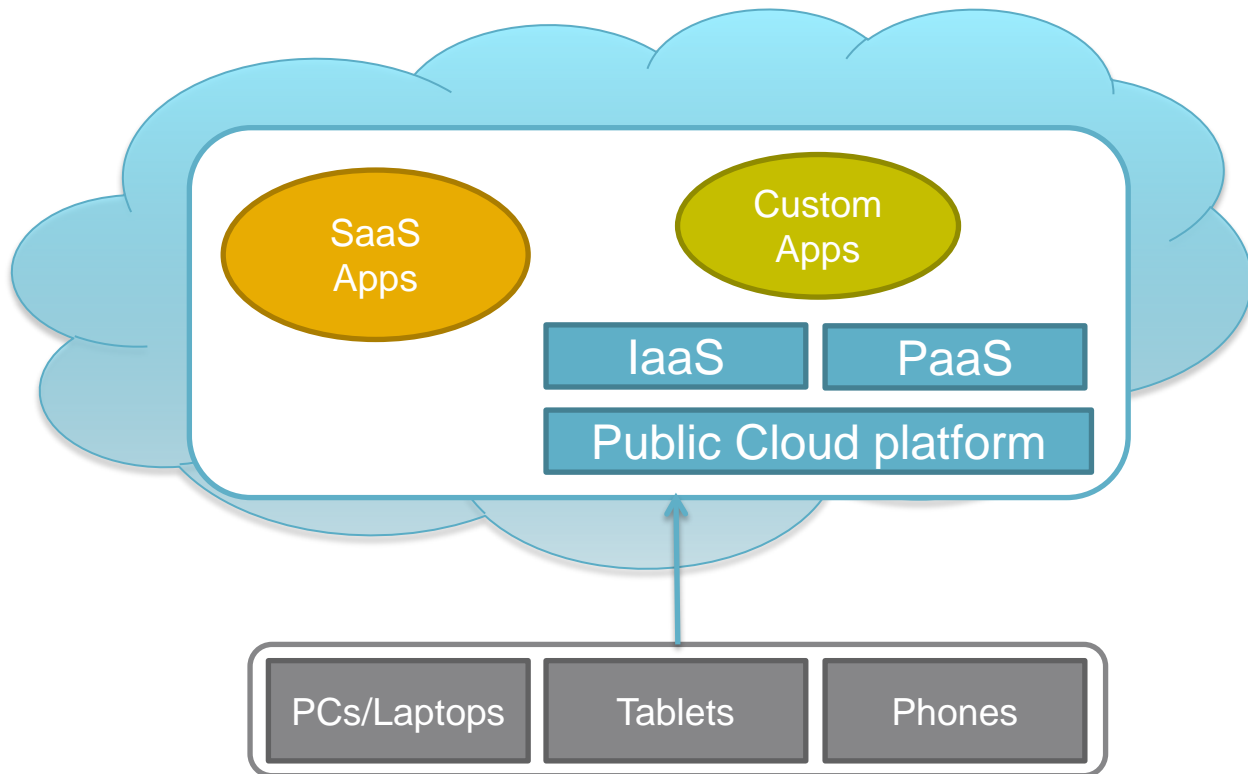# **Four questions to ask yourself**

1. What flavour of Cloud do I want?
2. From which vendor do I want it?
3. How can I procure it?
4. And what does the law say?

Traditional organisational IT

New organisational IT

The reality

On prem

Cloud

Packaged Apps

Custom Apps

Data center infrastructure

SaaS Apps

Custom Apps

IaaS   PaaS

Public Cloud platform

PCs/Laptops   Tablets   Phones
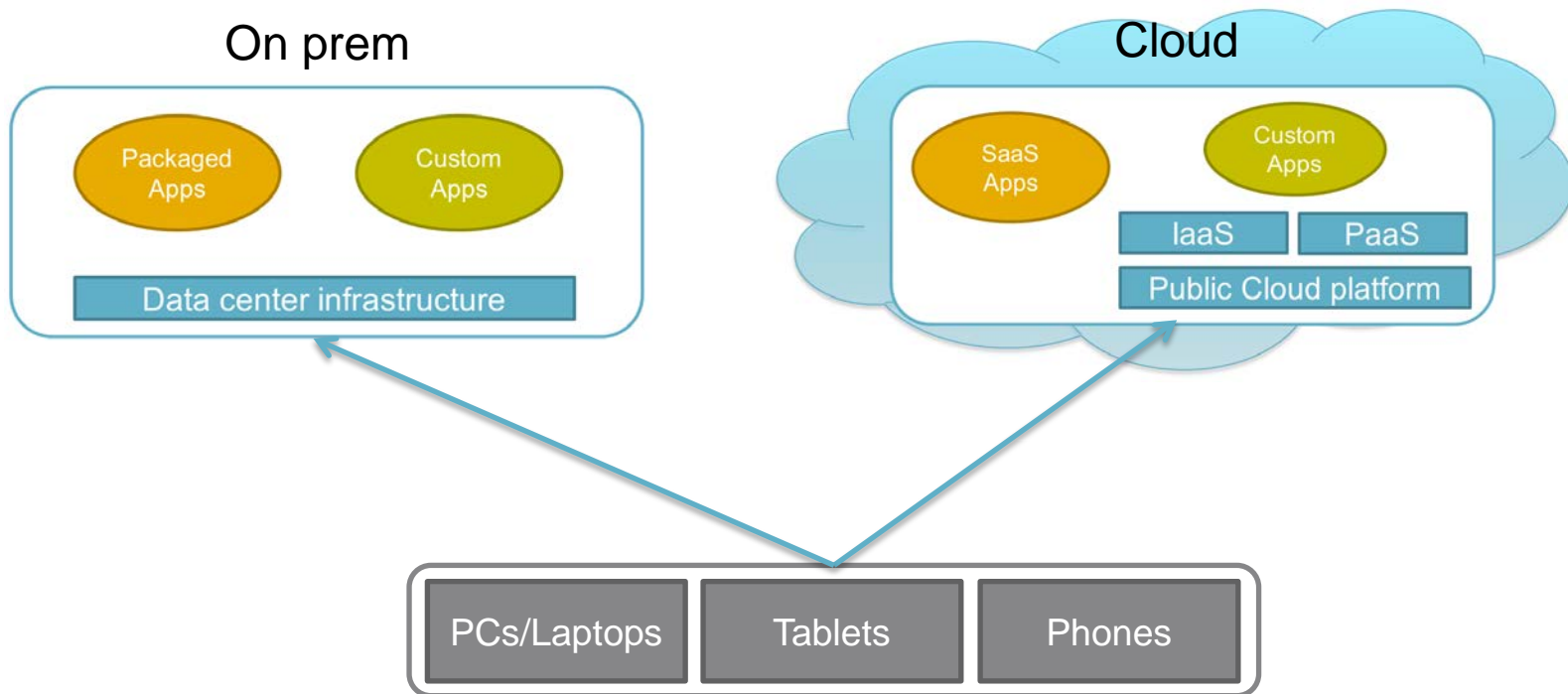
The basic flavours

IaaS = Infrastructure as a service

Design your environment from VMs, storage, backup etc.

PaaS = Platform as a service

Run your app on a server platform

SaaS = Software as a service

CRM apps

Office 365

control
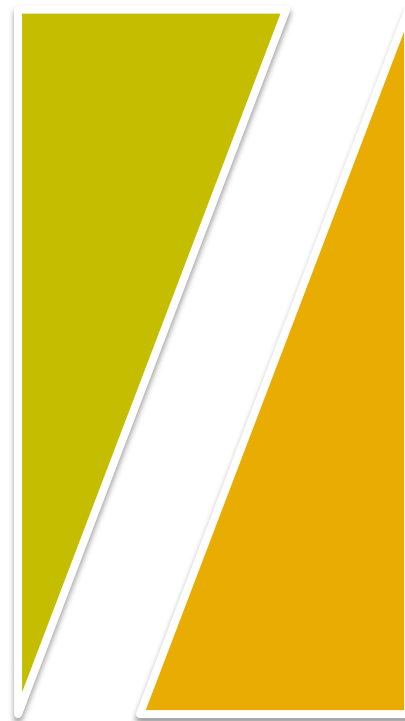
simplicity

The market and the vendors

Gartner 2013 MQ Public Cloud

Open stack supporters
- Rackspace
- HP

Gartner 2014 MQ Public Cloud

Source: Gartner (May 2014)

Gartner 2017 MQ Public Cloud

The vendors, a conclusion

Amazon and Microsoft for Public Cloud

Open stack only for Private Clouds

How can I procure it?

The adventures of public procurement in Sweden

➢ It takes a lot of time and effort
➢ You are not sure that you get the solution you want
➢ You are prone to lawsuits

How can I procure it?

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Is there a better way?

European Cloud Collaboration through GÉANT https://clouds.geant.org/

Pan-European tender
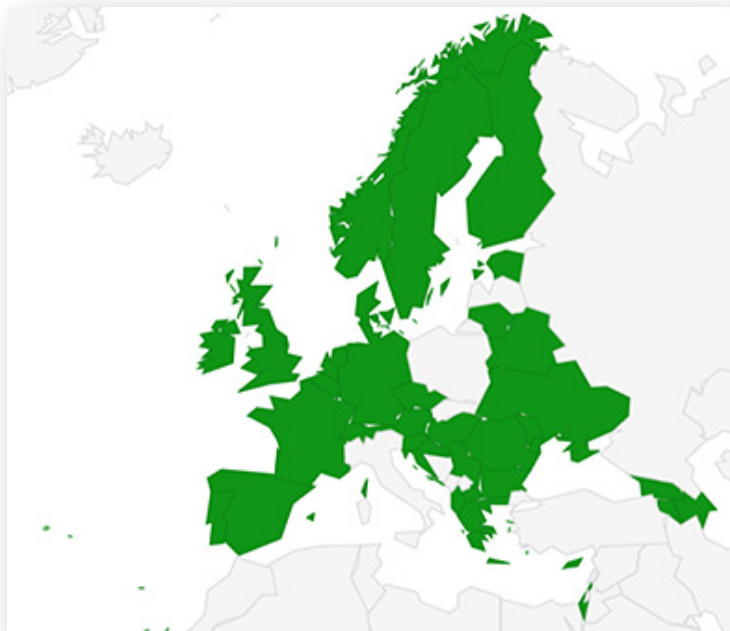
➢ 36 participating NRENs

➢ 12 different IaaS solutions

➢ 24 providers, incl. Amazon & Microsoft resellers

NREN = National research and
　　　　education network provider

Some benefits

➢ Procurement compliant in EU & EEA

➢ Legal compliance (EU data protection law)

➢ Invoice billing, no creditcard needed

➢ Aggregate use discounts (10.000 institutions)

➢ Direct peering with GÉANT network
  - no extra data transport charges

➢ Call-Off is made under UK regulation

Tender results – MS & AWS resellers

| Company	Company home base (for framework)	Albania	Armenia	Austria	Belarus	Belgium	Bulgaria	Croatia	Cyprus	Czech Republic	Denmark	Estonia	Finland	France	Georgia	Germany	Greece	Hungary	Ireland	Israel	Lithuania	Luxembourg	Macedonia	Malta	Moldova	Netherlands	Norway	Portugal	Romania	Serbia	Slovenia	Spain	Sweden	Switzerland	Ukraine	United Kingdom
Microsoft Azure (11):																																				
Atea	Latvia/Nordics			x		x		x	x	x	x	x		x	x	x	x			x	x					x	x	x			x	x	x			x
CACTTUS	Kosovo	x																				x						x								
Comparex (also AWS)	UK?	x		x		x	x	x		x	x		x	x		x	x			x				x	x	x	x	x	x	x	x	x	x	x	x	x
Dom-Daniel LLC	Armenia		x																																	
Infosoft Systems	Albania	x			x		x	x		x			x	x	x			x	x			x	x	x			x	x	x	x				x	x	
Micromail	Ireland	x		x	x	x		x	x		x		x	x	x	x	x	x	x		x	x	x			x			x				x	x	x	
Nextsense	Macedonia																						x													
Novabase	Portugal																											x								
SoftwareONE UK	UK			x		x		x	x		x		x	x		x	x							x	x		x			x	x	x				
Span	Croatia							x																				x								
Ymens Teamnet	Romania																											x								
Amazon AWS resellers:																																				
Acrus Global	UK			x		x			x		x	x		x			x								x	x	x			x	x	x		x		
Comparex	UK?	x		x		x	x	x		x	x		x	x		x	x			x	x			x	x	x	x	x	x	x	x	x	x	x	x	x
Telecom Italia (also OIP and AWS	Italy?					x			x	x	x	x		x		x	x	x	x			x	x			x	x	x			x	x	x		x	

And what does the law say?

➢ How do you handle The General Data Protection Regulation (GDPR)?

➢ All major Cloud vendors have US headquarters. That is outside EU/EES.

➢ Do your lawyers feel comfortable with the Privacy Shield Framework?

A recommendation: Talk to your IT departement and to your lawyers about your options before you act.

SLU and the cloud

➤ SLU uses a hybrid solution
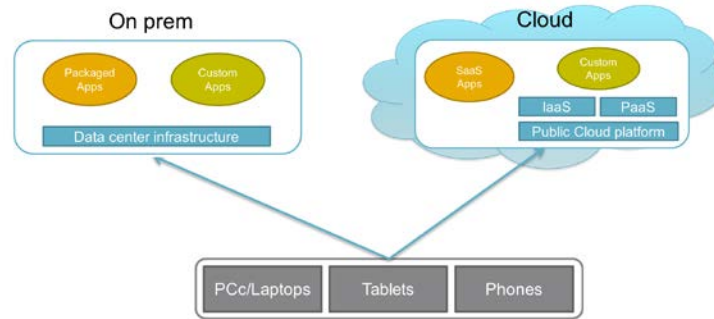
➤ SLU uses Office365

➤ SLU has signed a GEANT agreement for Microsoft Azure with ATEA as reseller

➤ Each new service has to be cleared with the legal department first

Microsoft and Amazon

➢[Amazon AWS](#)

➢Microsoft Erik Gullbring, Using clouds in life sciences