



## **SLA-aware service stacks.**

**Infrastructure requirements from a service perspective.**

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Information Society  
Technologies



SEVENTH FRAMEWORK  
PROGRAMME

contributing to



## SLA@SOI – project overview

### Infrastructure architecture

### Use case features



## Vision

- A business-ready service-oriented infrastructure empowering the service economy in a flexible and dependable way.

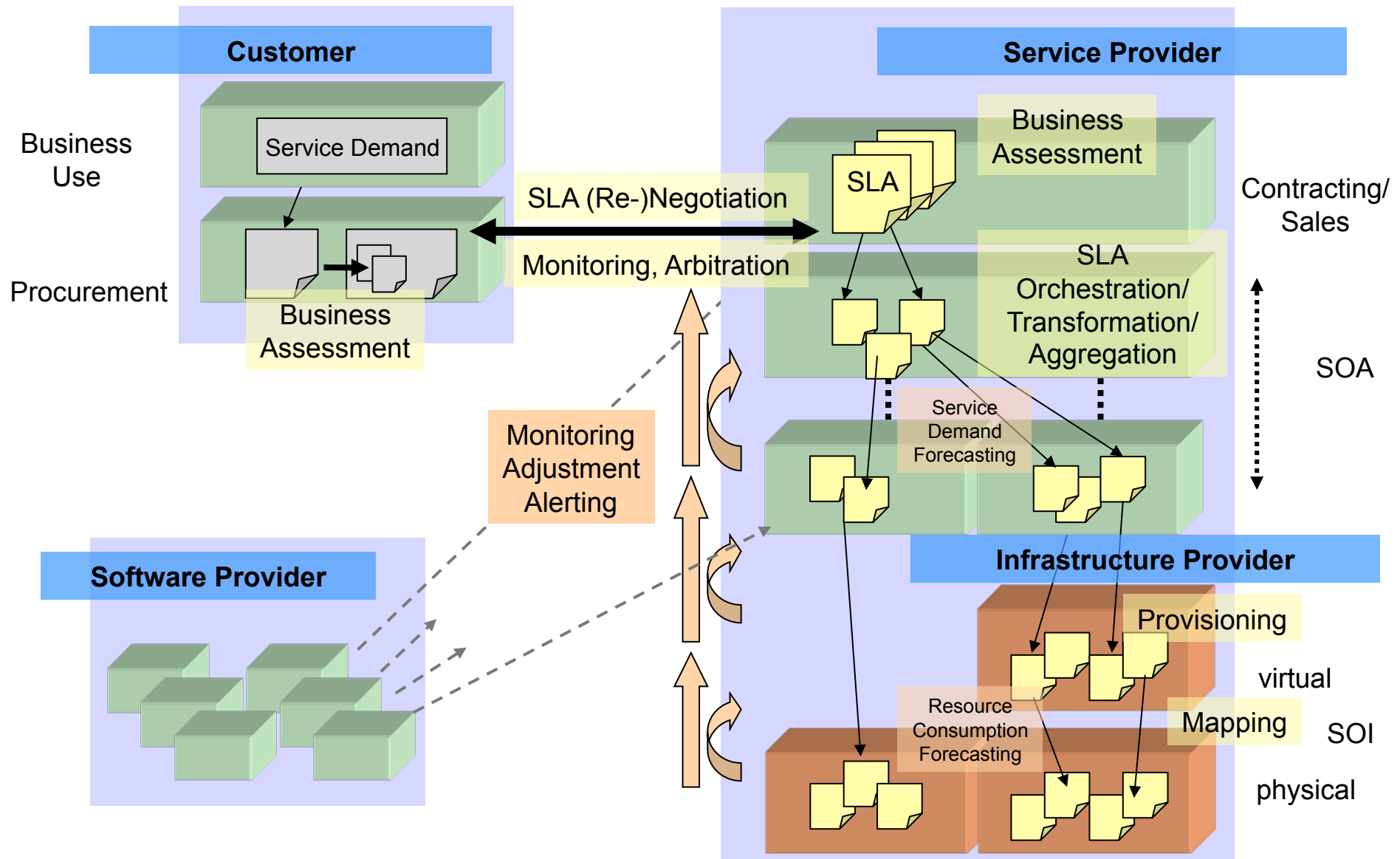
## Business-readiness requires

- predictability & dependability → prerequisite for acceptance & uptake of (new) services
- holistic SLA management → transparent IT management
- automated negotiation → dynamic, scalable service consumption

## Impact on the knowledge economy

- decreased time to market for new services
- increased productivity and competitiveness
- lower entry barriers, especially for SMEs

# Envisioned Interaction



## Main innovations

### ■ SLA management framework

- harmonizing perspectives of relevant stakeholders (software/service/infrastructure provider and customer)
- standards for SLA specification and negotiation & systematic multi-layer SLA management (planning, optimization, and provisioning), monitoring and accounting
- guaranteed QoS in a dynamic and end-to-end fashion via consistent SLA handling across IT stack

### ■ adaptive SLA-aware infrastructures

- standardized interfaces for adaptive infrastructures with harmonized access to different virtualization technologies.
- advanced technologies for SLA enforcement on infrastructure level
- efficient resource usage w/ reliable SLA enforcement at infrastructure level

### ■ engineering methods for predictable service-oriented systems

- modelling techniques and prediction tools for SOA and SOI components

### ■ business management suite for e-contracting

- covers complete business lifecycle of a service provisioning/delivery

# Agenda

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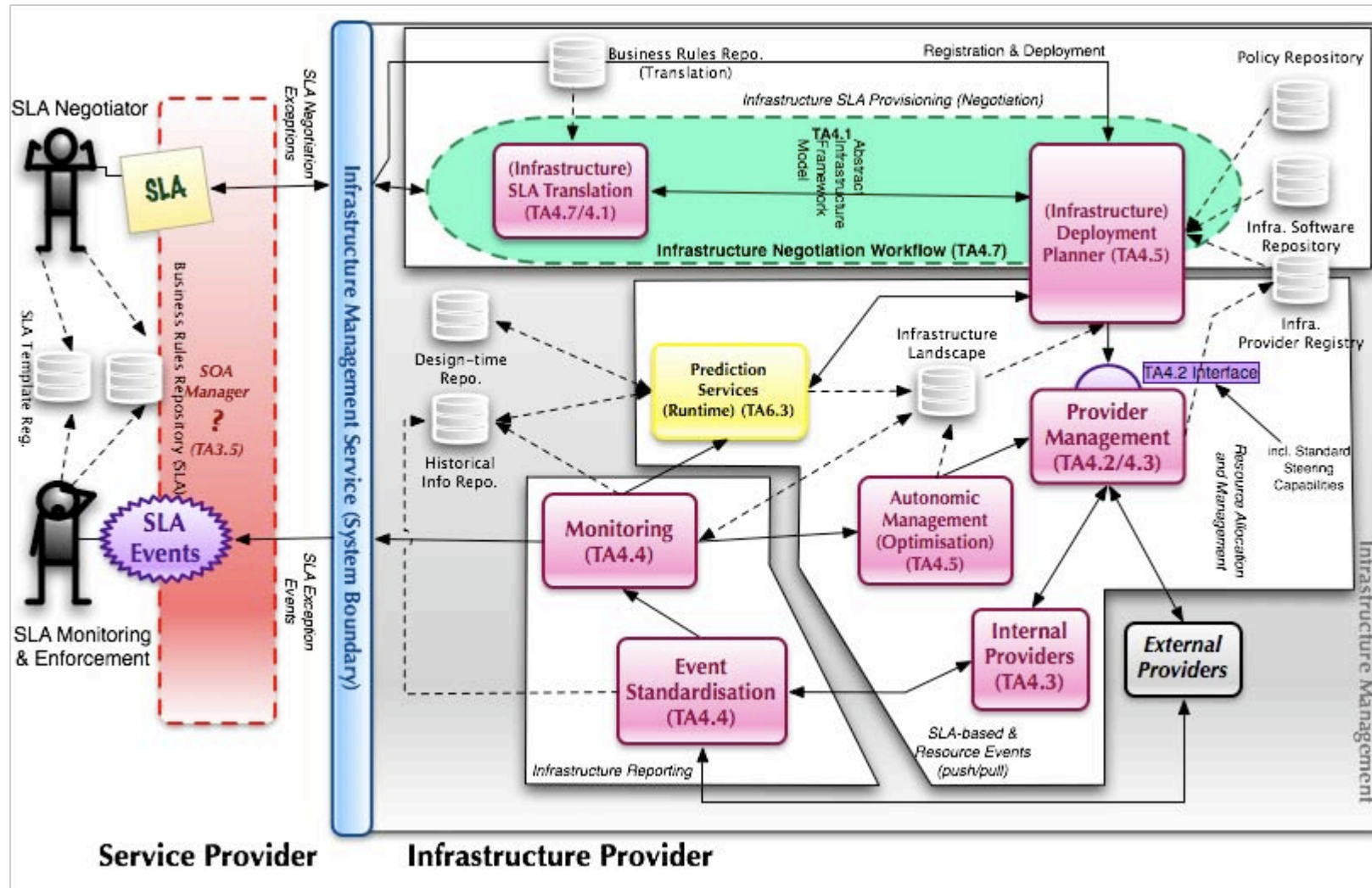


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## Architecture model definition and integration.



# Agenda

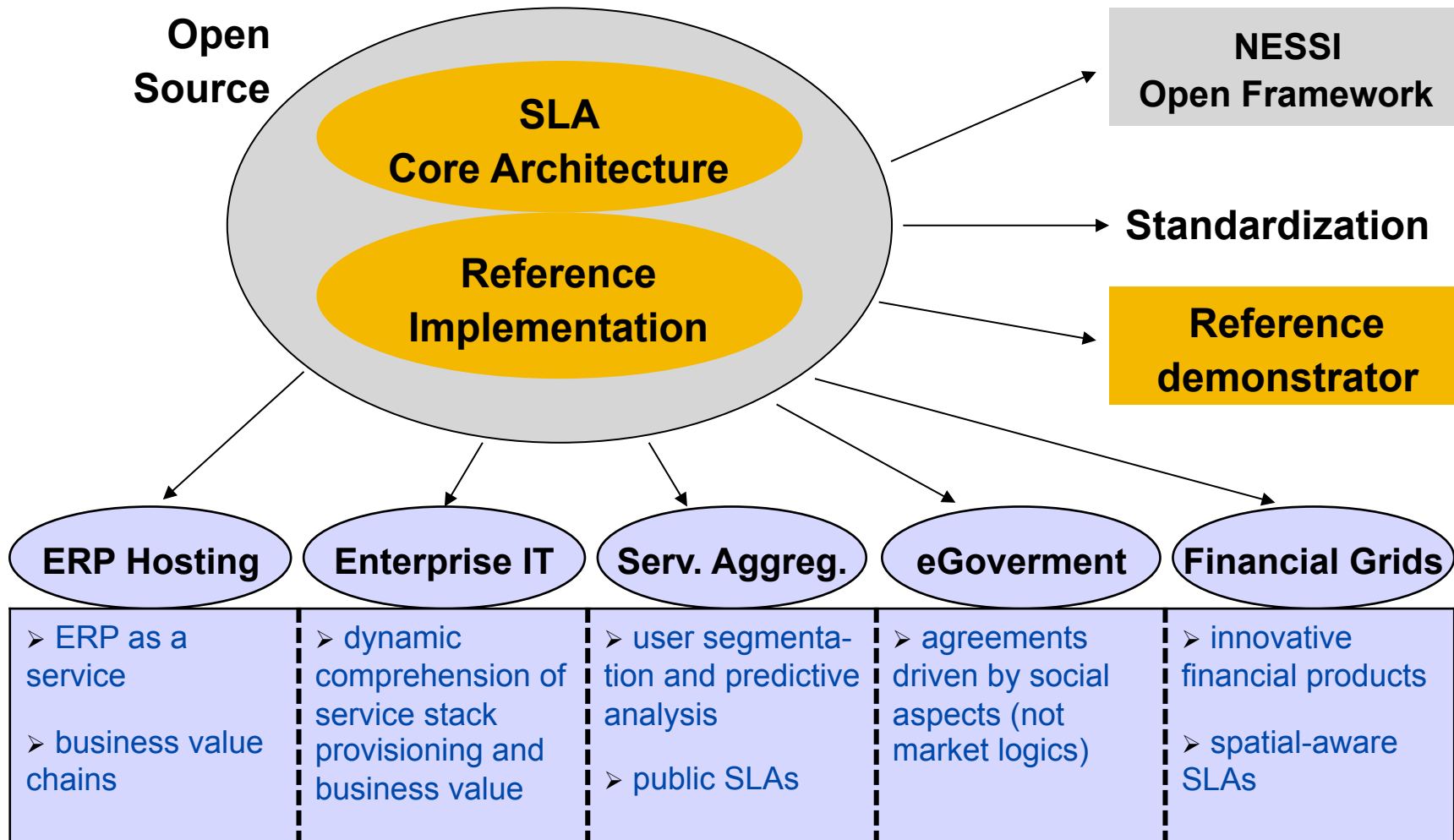
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Infrastructure architecture

Use cases and service features



➔ Industrial Evaluation Report: “How to run an SLA-driven business”

## Hugely diverse software service landscape –

- Scale, lifecycle, volume, traffic type, criticality, revenue, NFP requirements.

## Virtualised, distributed infrastructure landscape will be adaptive:

- Telco services – quad-play, routing : VOIP/trunking arbitrage.
- Long-running, high value, mission critical (enterprise).
- Short-running, personalised, advertising-driven (consumer, social media),
- QoS constraint driven – e.g. data proximity,
- Spatial constraint driven – e.g. financial services data.

## Complex SLA lifecycle – planning/provisioning/runtime.

### Enabling features :

- Meta-model interoperability for atomic and composed infrastructure services,
- Harmonisation of interfaces,
- Transparent monitoring and logging,
- Holistic value-dial assessment models,
- Auditability of resource consumption.

# Thank you!

