



Finest
FUTURE OF LOGISTICS

Future Internet Technology for the Future of Transport and Logistics

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FUTURE
INTERNET
PPP

www.finest-ppp.eu

- **Why?**
- **What?**
- **How?**

Relevance of Transport & Logistics

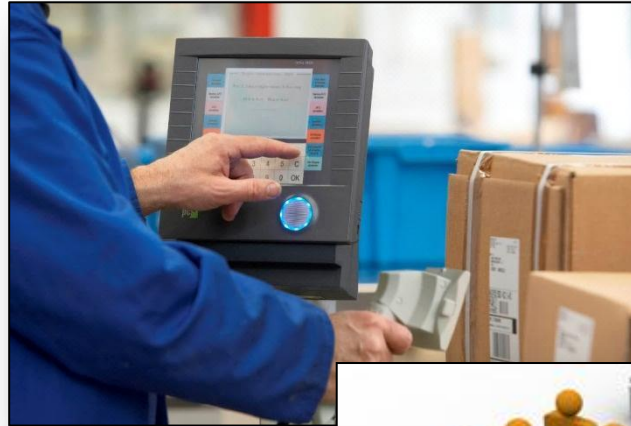
- **Economical impact**
 - 7% of the EU GDP
 - 5% of total EU employment

- **Ecological impact**
 - **~15% of the global greenhouse gas** caused by transportation
 - Transport-caused **emissions**
 - **Increased by 50%** in 2010 (compared with 1990)
 - Expected to **double again by 2030**



Pressing problems

- **Limited visibility** on T&L processes and critical events hampers business network efficiency and effectiveness
- **Closed logistic supply chains** hinders agile inter-organizational information exchange and collaboration and access for SMEs
- Highly manual processes, lack of standards, legal and governmental regulations (**“tons of paper”**)



Why?



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Requirement 1

Efficient support for inter-organizational collaboration and contracting in cooperative business networks



Requirement 2

Seamless integration of information and data along with real-world data acquisition



- **Why?**
- **What?**
- **How?**

What?

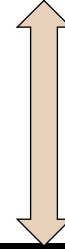
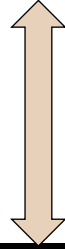
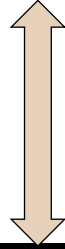
T&L Stakeholders

KUEHNE+NAGEL

 **KoçSistem**
"Gücümüz, hayal gücünüz"

AIRFRANCE 

...



Generic Enablers



Future Internet Core Platform



Ubiquitous
Broadband
Connectivity

Real World
Integration

Information
Integration &
Processing

Service
Provisioning &
Consumption

Security &
Reliability

...

NoF

IoT

IoC

IoS

SPT

...

Domain-specific Capabilities

Business Collaboration

- Service-oriented **inter-organizational** collaboration manager, targeted to different **T&L stakeholders**

eContracting

- **Semi-automated e-contract selection and management**
- Creation of more **dynamic marketplaces** to seamless support e-contracting (e.g., spot contracting)

Proactive Event Monitoring

- **Event-driven monitoring**, across domains & modality, providing end-to-end visibility of logistic processes
- **Proactive event processing** driven by contract management and transport planning & triggering transport re-planning

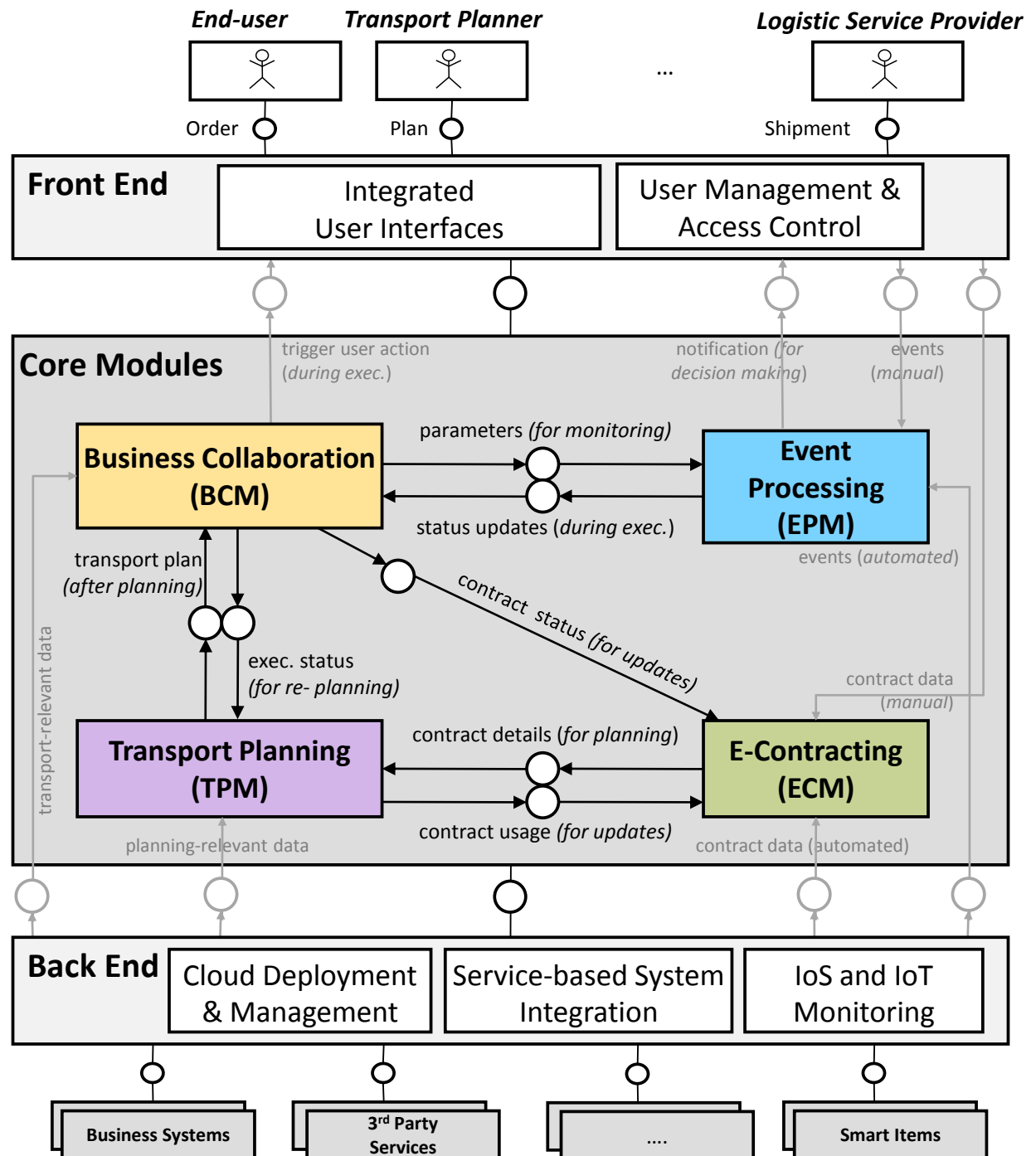
Transport (Re-) Planning

- **Dynamic transport (re-)planning facilities, automatically exploiting real-world data**

- **Why?**
- **What?**
- **How?**

How?

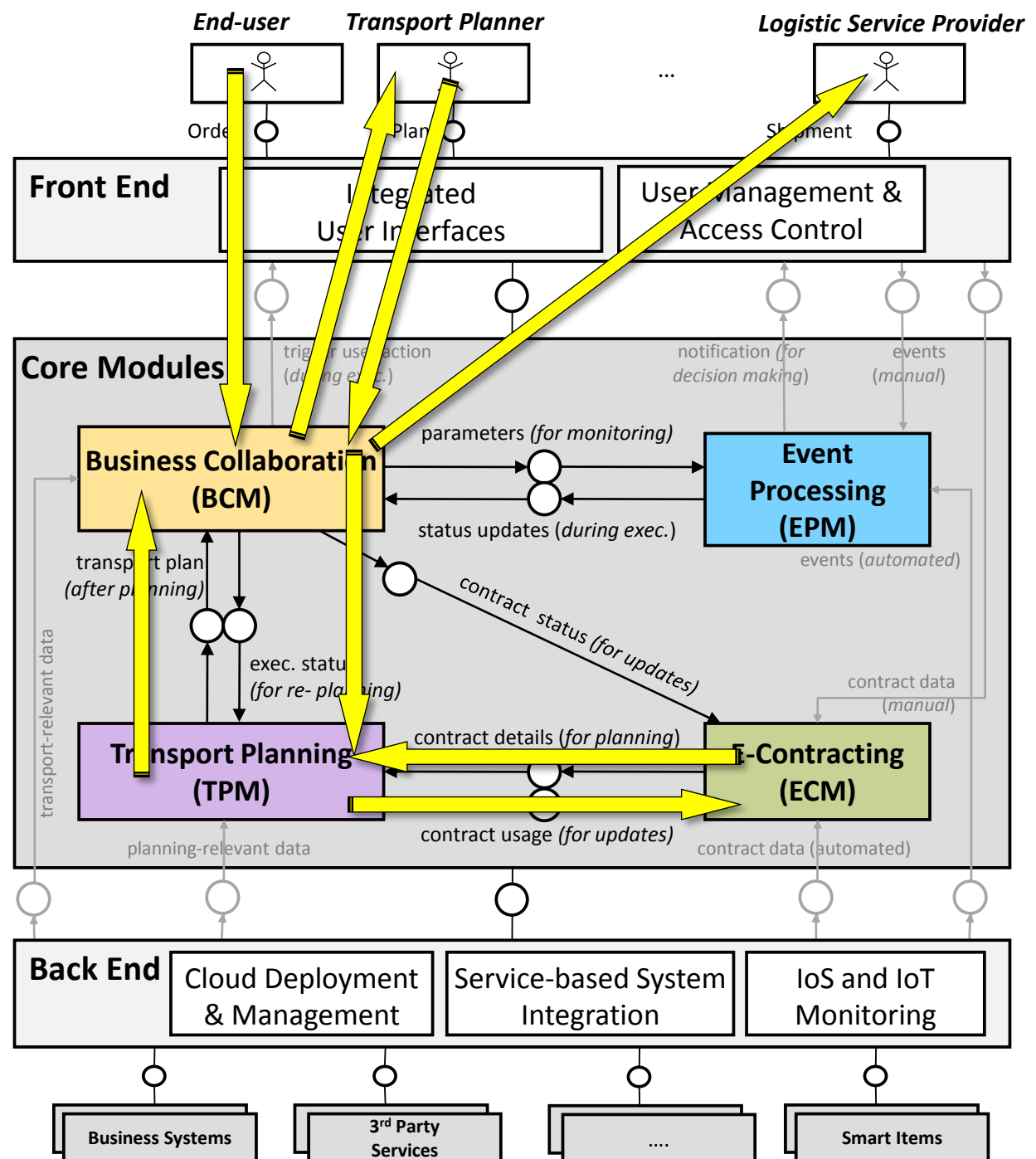
Initial conceptual architecture



Finest High-level Architecture

Scenario 1

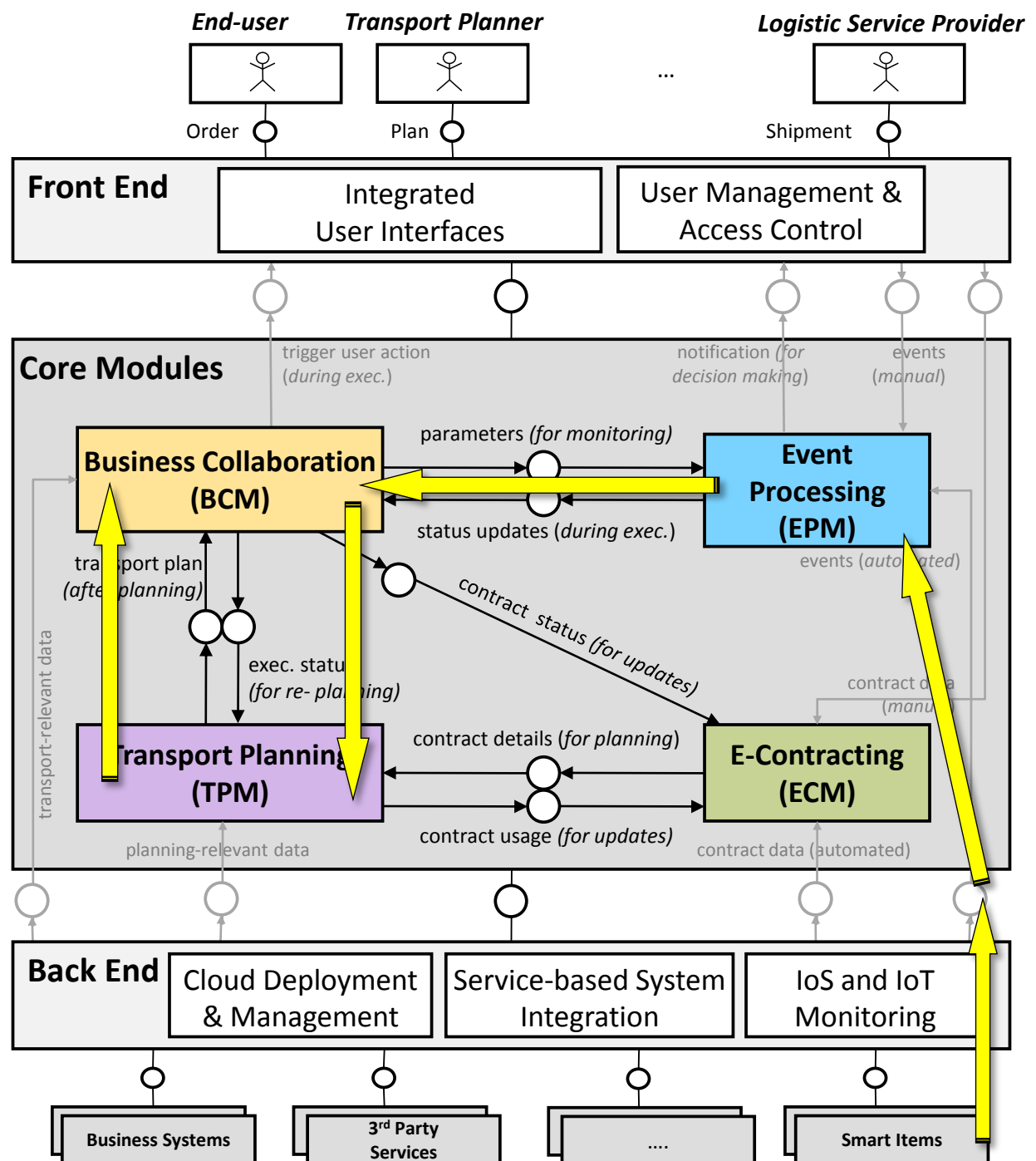
“Setup transport plan for customer-initiated order”



Finest High-level Architecture

Scenario 2

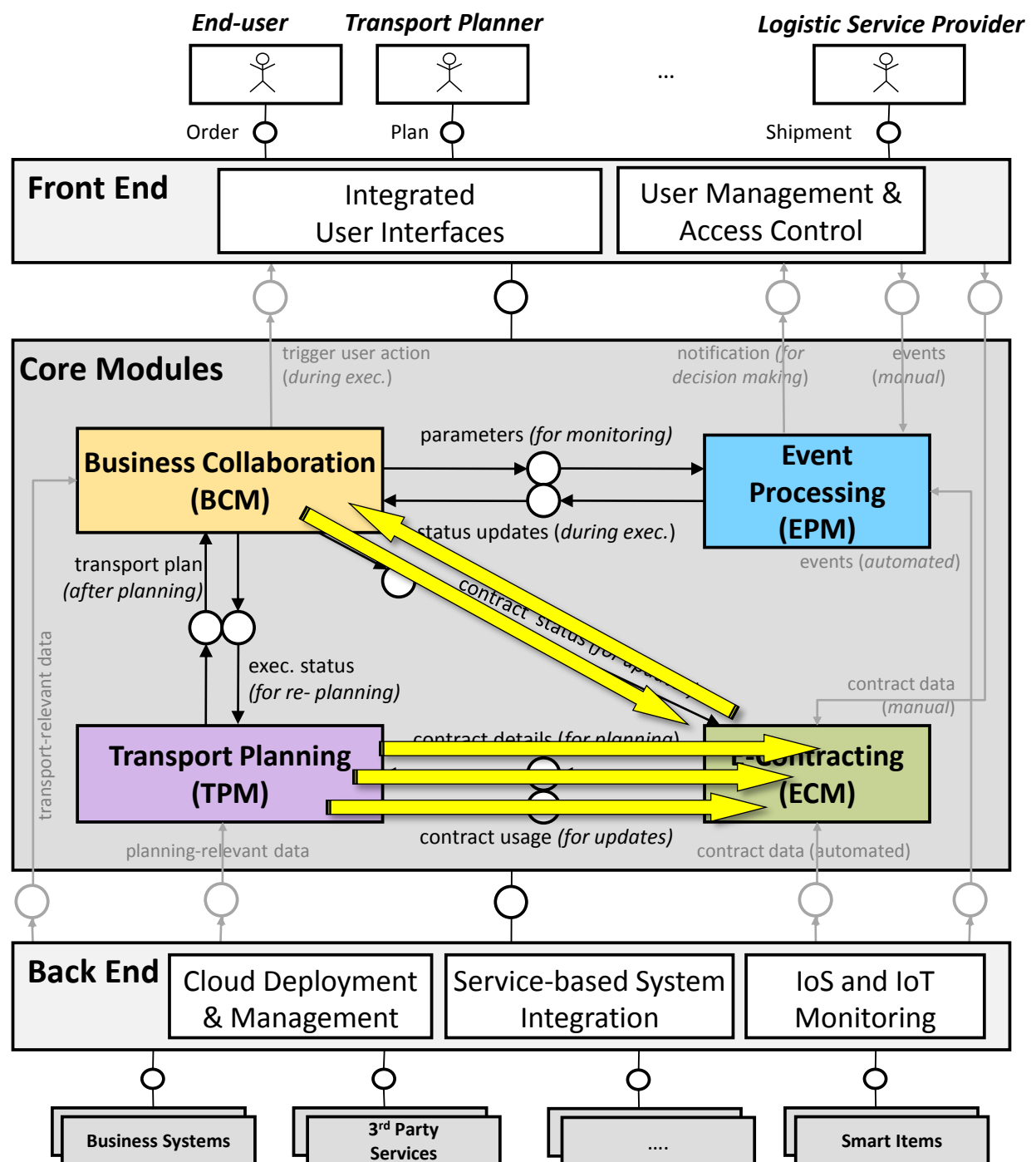
“Monitor cargo and respond to deviations”



Finest High-level Architecture

Scenario 3

“Establish new blanket contract with transport provider”



Finest = Novel ICT Solutions for Sustainable Transport & Logistics:

Higher business network agility through better visibility on T&L processes

Lowered barriers for inter-organizational collaboration and SME access by enabling open logistic supply chains

Increased business efficiency by reduction of manual and rigid steps

KUEHNE+NAGEL



MARINTEK



THANK YOU!