

## Prototype “Kwaliteit- gestuurde Plantenketen”



*Ketenoptimalisatie door slimme RFID,  
sensor-, en internettechnologie*

*Cor Verdouw en Robbert Robbmond  
LEI, Wageningen UR*

# Context



**Kwaliteit  
monitorings-  
technologie  
(sensoren,  
dataloggers)**



**Tracking &  
tracing  
technologie  
(RFID,  
wireless)**



**Future  
Internet  
functionaliteit**



**Real-time  
Kwaliteits-  
gestuurde  
Planten-  
keten**



**Vermindering  
verspilling**

**Kortere  
doorlooptijden**

**Betere capaciteits-  
benutting**

**Betere kwaliteit voor  
consumenten**



# FI-PPP & cSpace



- Opstellen requirements en ontwikkelen prototype

Phase 1

8 project



- **Software ontwikkeling**

Phase 2

8 projects 13,5 m€/project



- Uitrol op grote schaal

Phase 3

8 projects 100 m€ (totaal)

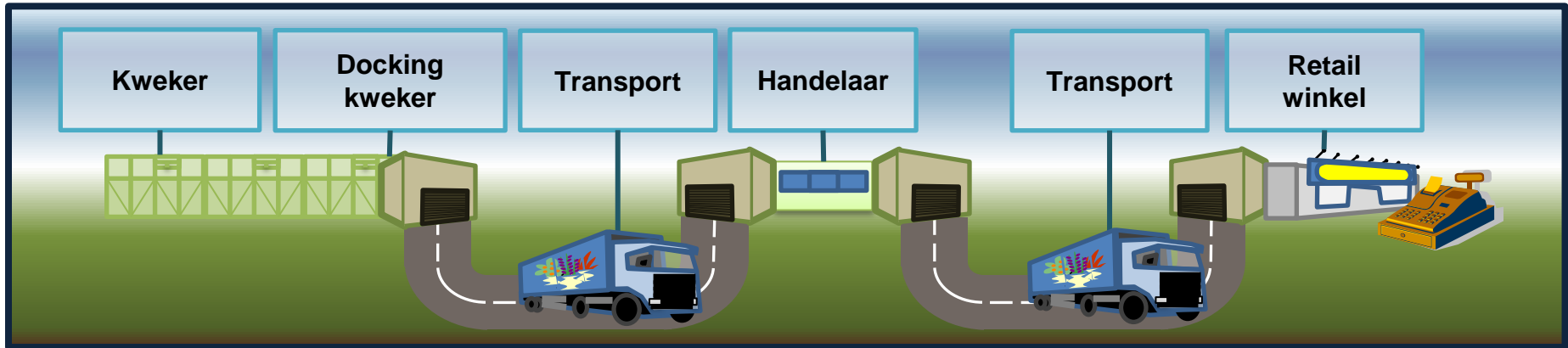


FI-WARE

Basis Technologie



# Overzicht pilot

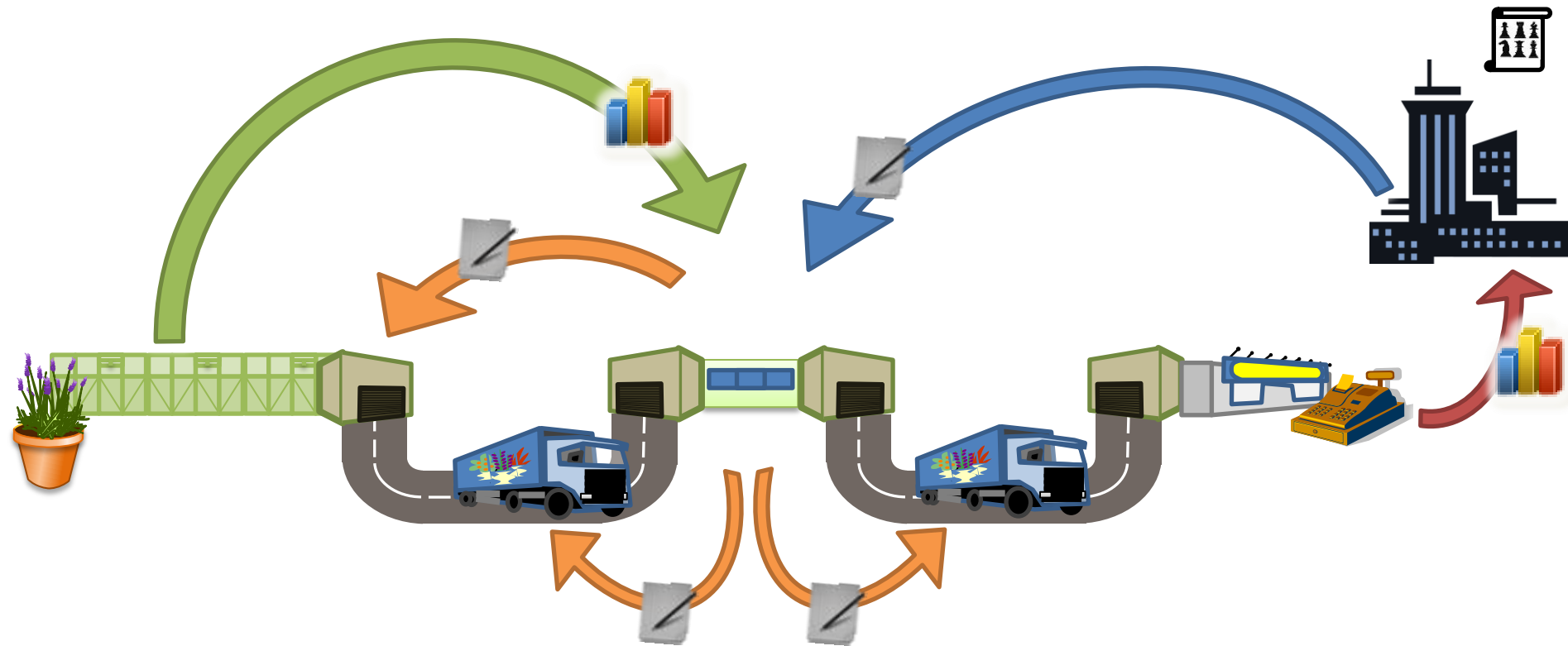




# View van stakeholder: Baas Plantenservice, NL

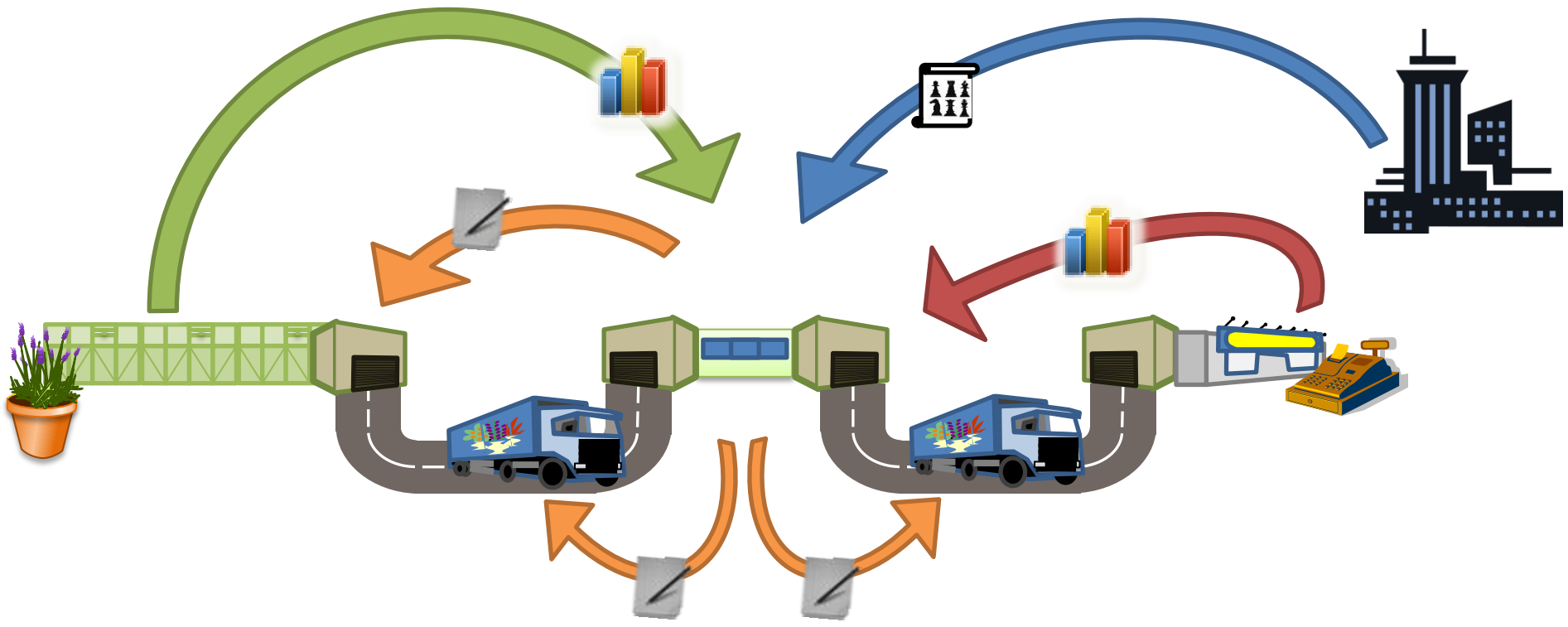


# Huidige situatie



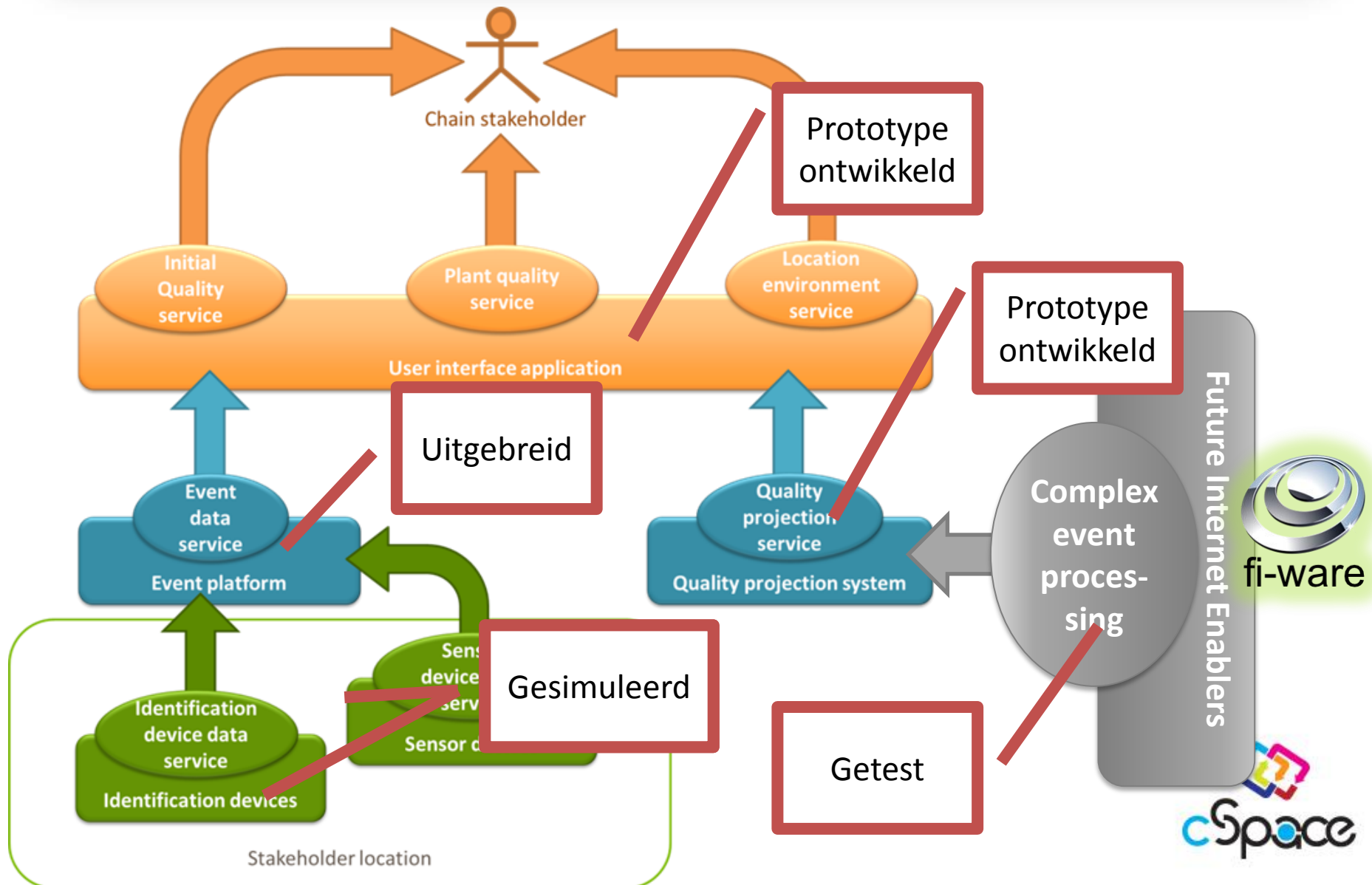


# Gewenste situatie





# Pilot Solution Architecture





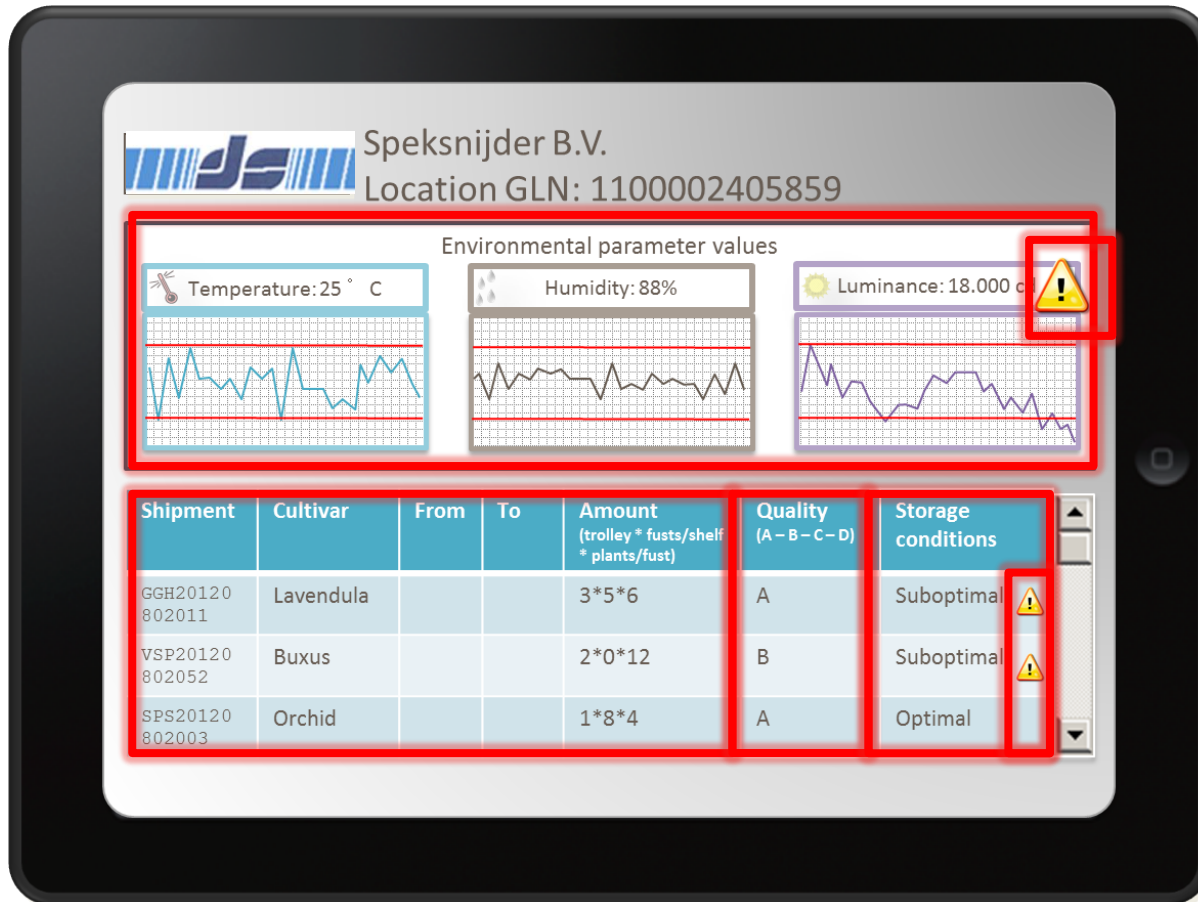


# Selectie van pilot componenten





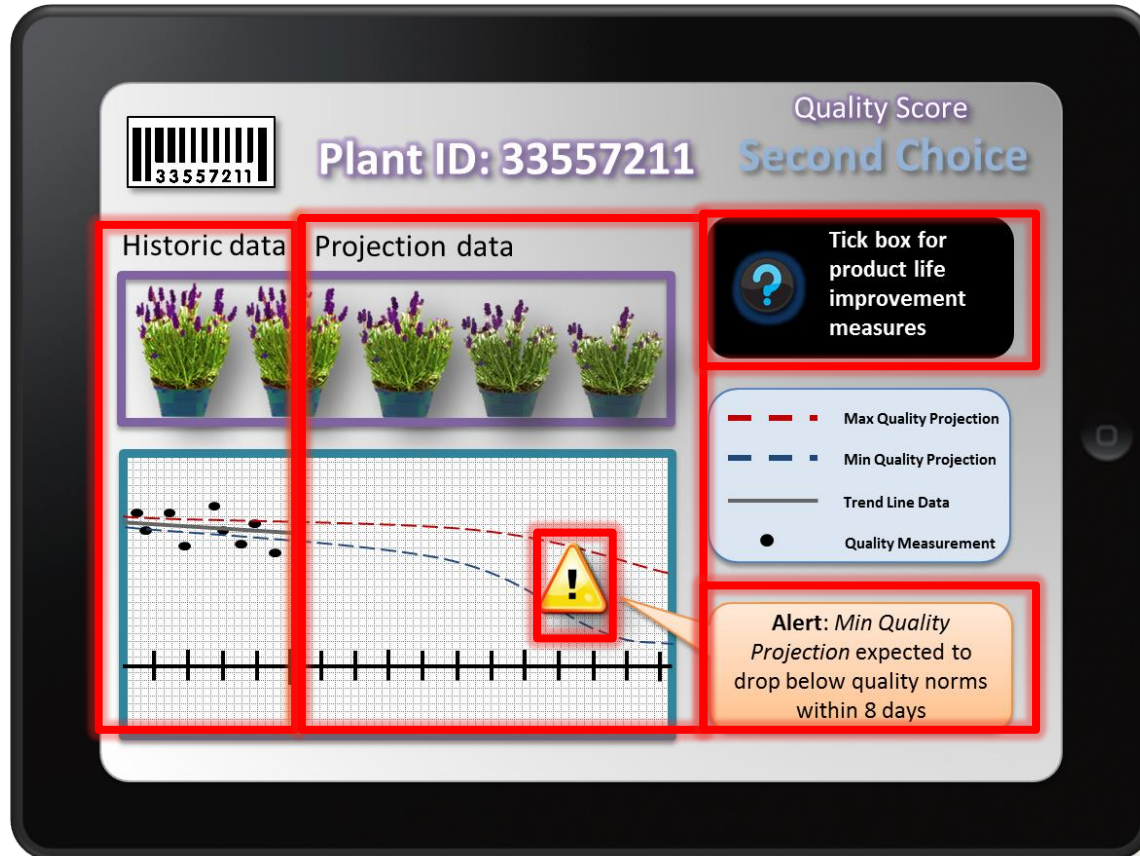
# Mock-up kwaliteitsmeting



- Overzicht van condities
- Overzicht van cultivars in docking
- Kwaliteit van cultivars
- Geschiktheid van opslagcondities van cultivars op locatie
- Alarmen voor probleemnotificatie

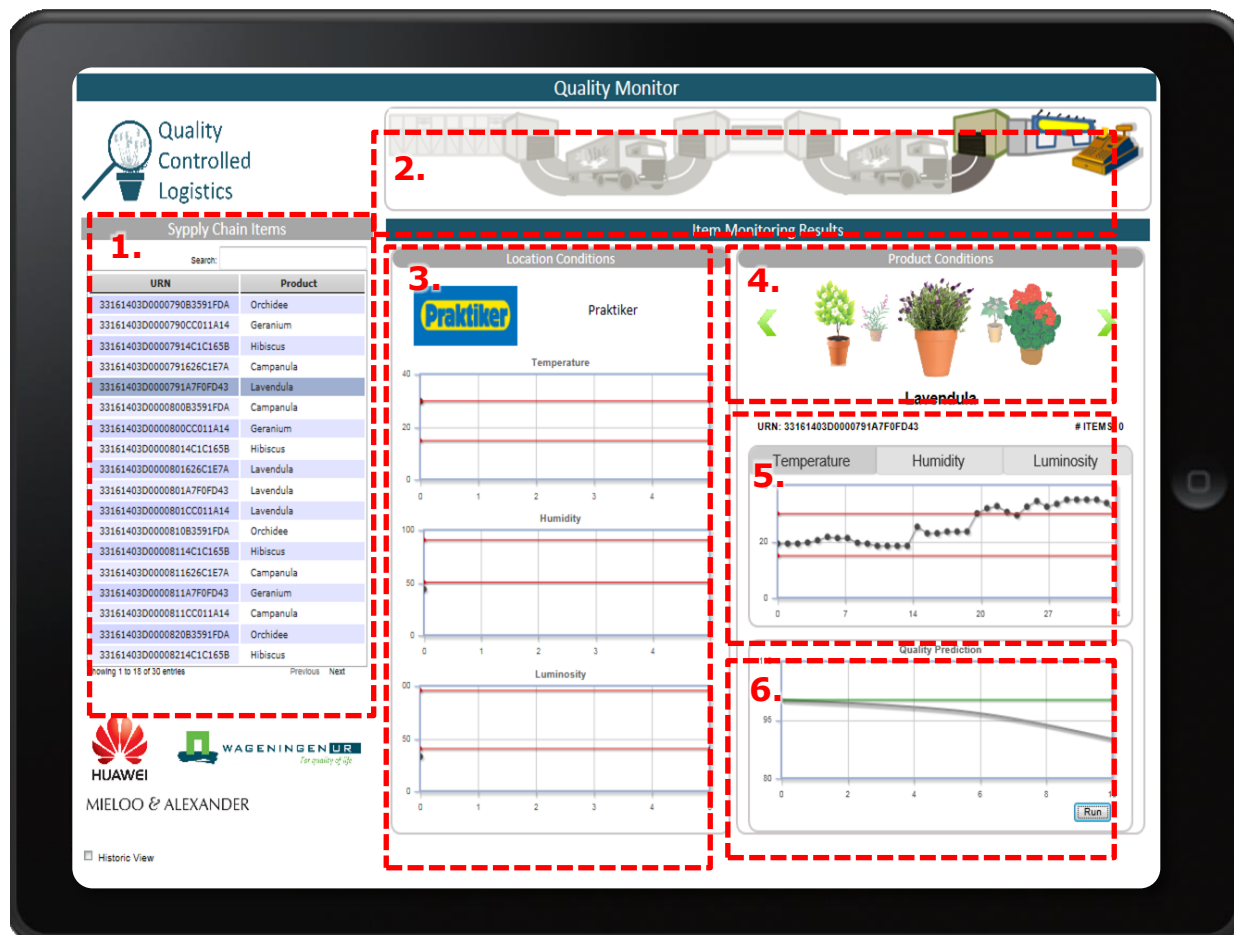


# Mock-up quality simulation screen



- Historisch kwaliteitsverloop gebaseerd op metingen
- Gesimuleerd kwaliteitsverloop gebaseerd op verloopmodellen
- Alarmen voor verwachte kwaliteitsproblemen
- Adviezen voor interventies

# Prototype Demonstration



1. Zoeken en selecteren van objecten
2. Locatie van het object
3. Omgevingscondities locatie
4. Representatieve foto cultivar
5. Historie omgevingscondities
6. Verwacht kwaliteitstraject

# Quality Monitor



Quality  
Controlled  
Logistics



## Supply Chain Items

Search:

| URN                      | Product   |
|--------------------------|-----------|
| 33161403D0000790B3591FDA | Orchidee  |
| 33161403D0000790CC011A14 | Geranium  |
| 33161403D00007914C1C165B | Hibiscus  |
| 33161403D0000791626C1E7A | Campanula |
| 33161403D0000791A7F0FD43 | Lavendula |
| 33161403D0000800B3591FDA | Campanula |
| 33161403D0000800CC011A14 | Geranium  |
| 33161403D00008014C1C165B | Hibiscus  |
| 33161403D0000801626C1E7A | Lavendula |
| 33161403D0000801A7F0FD43 | Lavendula |
| 33161403D0000801CC011A14 | Lavendula |
| 33161403D0000810B3591FDA | Orchidee  |
| 33161403D00008114C1C165B | Hibiscus  |
| 33161403D000081626C1E7A  | Campanula |
| 33161403D000081A7F0FD43  | Geranium  |
| 33161403D0000811CC011A14 | Campanula |
| 33161403D0000820B3591FDA | Orchidee  |
| 33161403D00008214C1C165B | Hibiscus  |

Showing 1 to 18 of 30 entries

Previous Next



MIELOO & ALEXANDER

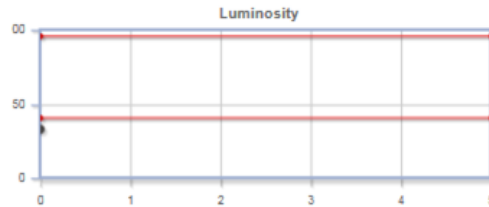
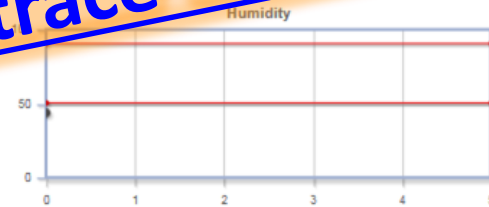
Historic View

## Item Monitoring Results

### Location Conditions



Praktiker

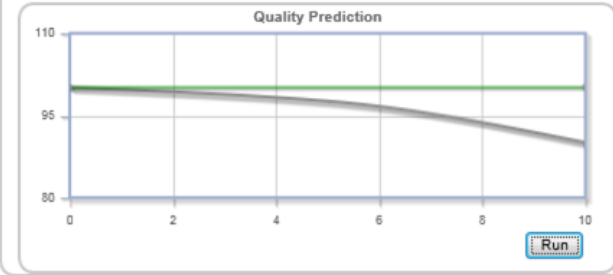
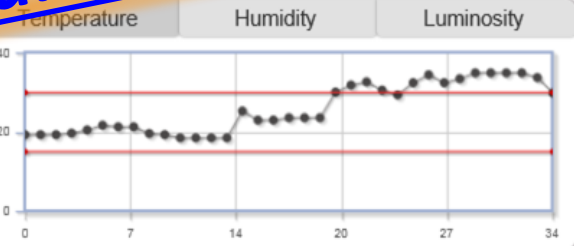


### Product Conditions



Lavendula

# ITEMS: 0



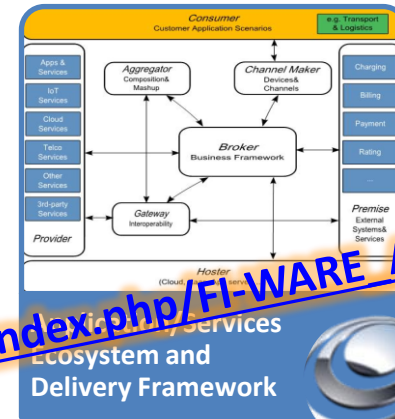
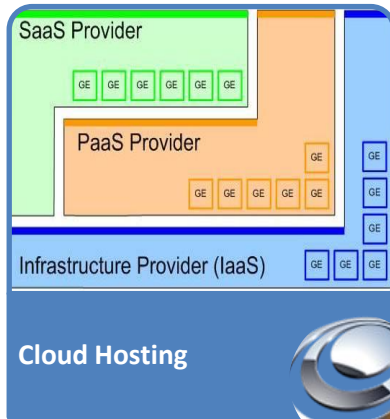
<http://tracktrace-wur.rhcloud.com/fpp3.html>

# Future Internet

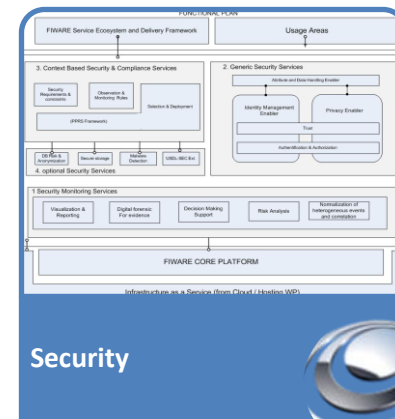
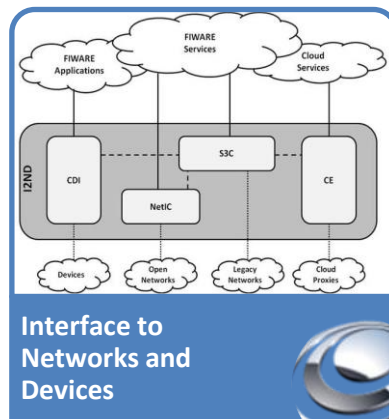
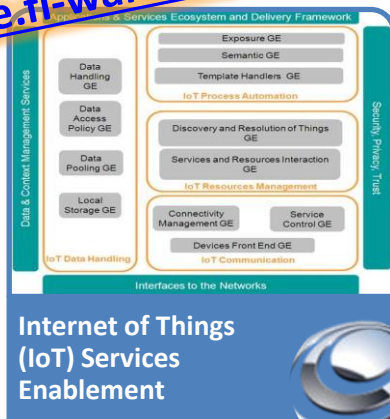




# Onderdelen FI-Ware platform



<http://forge.fi-ware.eu/plugins/mediawiki/wiki/fiware/index.php/Services-Ecosystem-and-Delivery-Framework>





# Door stakeholders gewenste verbeteringen

Focus op 'probleem-items' en groepeer items

Verbeter representatieve foto

Breidt uit met contract-afspraken

Voeg expert kwaliteitsmetingen & certificaten toe

Verbeter kwaliteitsvoorspelling

Quality Monitor

Quality Controlled Logistics

Supply Chain Items

| Search:                  | Product   |
|--------------------------|-----------|
| 0B3591FDA                | Orchidee  |
| 0CC011A14                | Geranium  |
| 14C1C165B                | Hibiscus  |
| 1626C1E7A                | Campanula |
| 1A7F0FD43                | Lavendula |
| 0B3591FDA                | Campanula |
| 0CC011A14                | Geranium  |
| 14C1C165B                | Hibiscus  |
| 1626C1E7A                | Lavendula |
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| 33161403D0000811626C1E7A | Campanula |
| 33161403D0000811A7F0FD43 | Geranium  |
| 33161403D0000811CC011A14 | Campanula |
| 33161403D0000820B3591FDA | Orchidee  |
| 33161403D00008214C1C165B | Hibiscus  |

Showing 1 to 18 of 30 entries

Temperature

Humidity

Lavendula

URN: 33161403D0000791A7F0FD43 # ITEMS: 0

Temperature Humidity Luminosity

Quality Prediction

HUAWEI

WAGENINGEN UR For quality of life

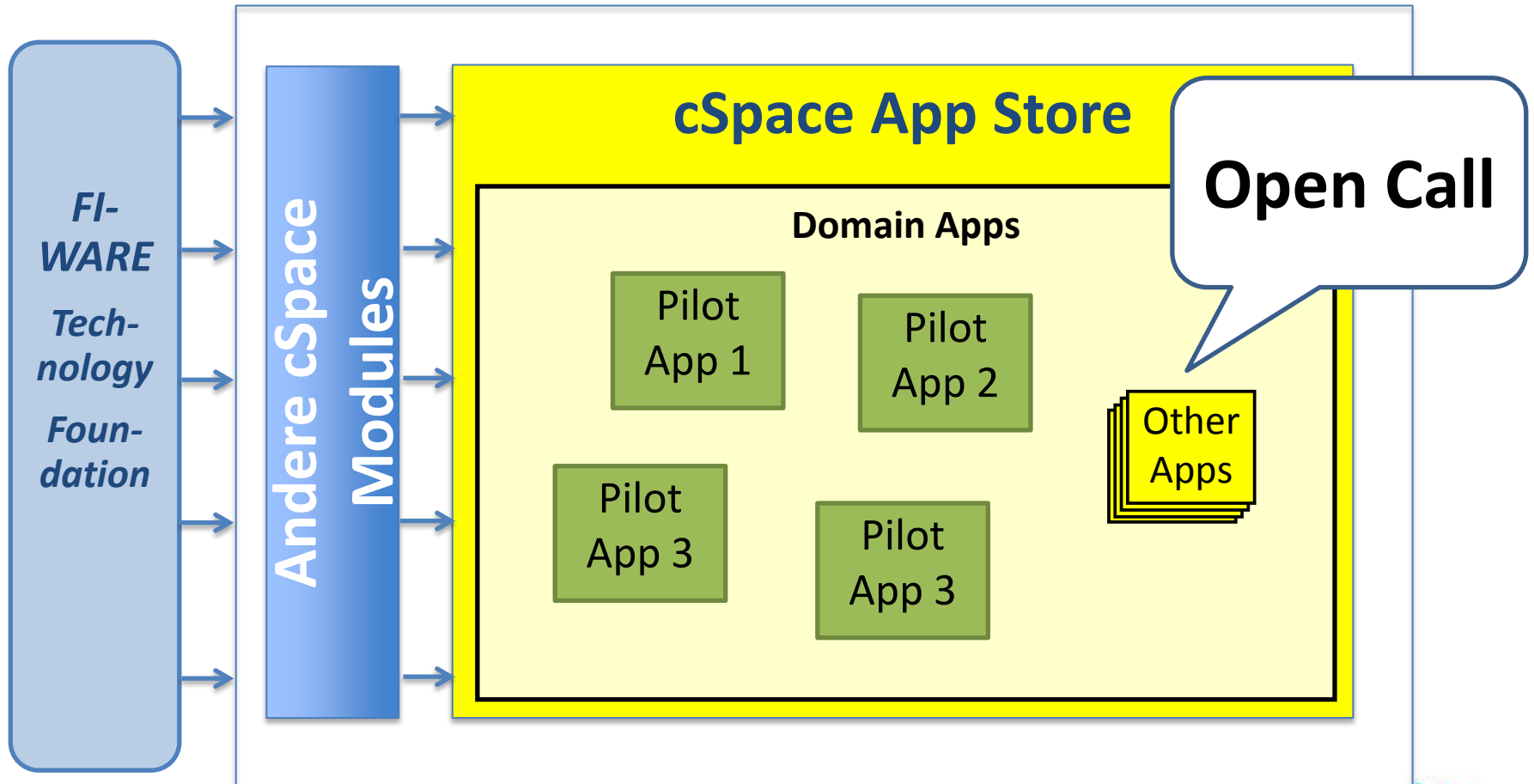
MIELOO & ALEXANDER

Historic View



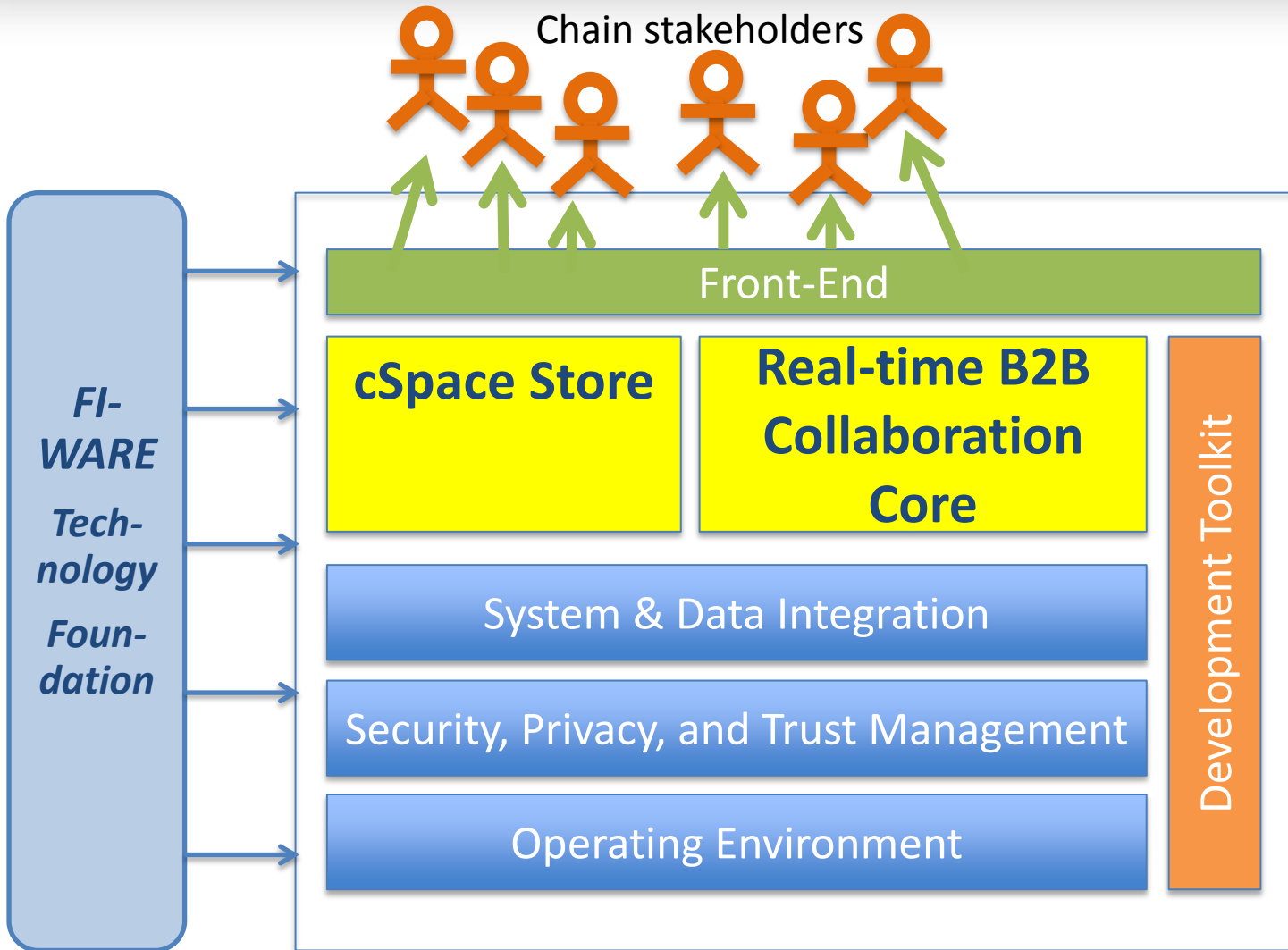


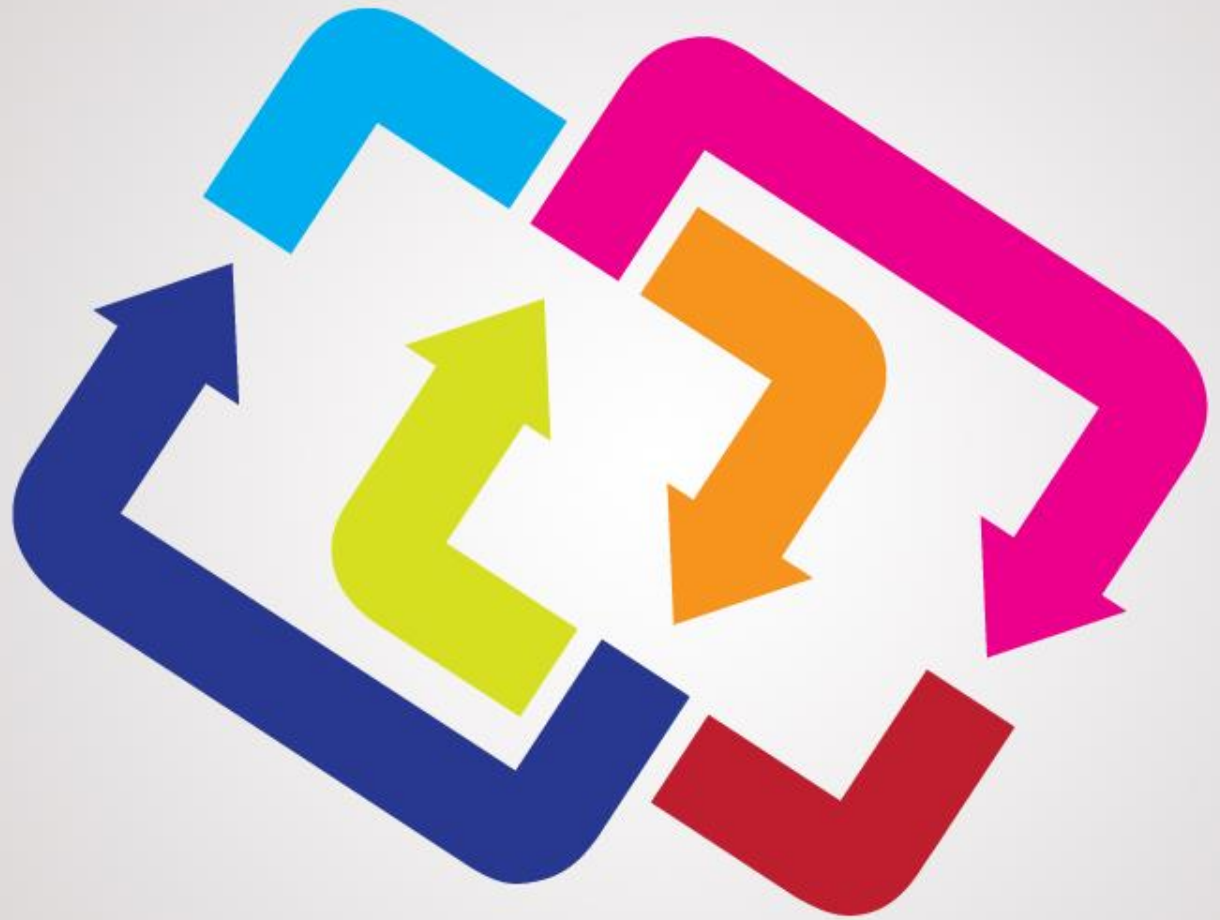
# Ontwikkelingen prototype





# Het platform en gebruikers





**Zijn er vragen...?**