‘Blockchain als ketenregisseur’

Victor van der Hulst | Programmamanager

16 juni 2022 - Zoetermeer

Opgezet door een ervaren consortium

Dit onderzoeksproject maakt deel uit van het onderzoeksprogramma Duurzame Living Labs dat (mede)gefinancierd is door de Nederlandse Organisatie voor Wetenschappelijk Onderzoek (NWO), Ministerie Infrastructuur & Waterstaat, Nationaal Regieorgaan Praktijkgericht Onderzoek (SIA) en de topsector Logistiek.

Wie staan er naast ons?

Open **menti.com** op je smartphone en gebruik de volgende code:

3380 3442

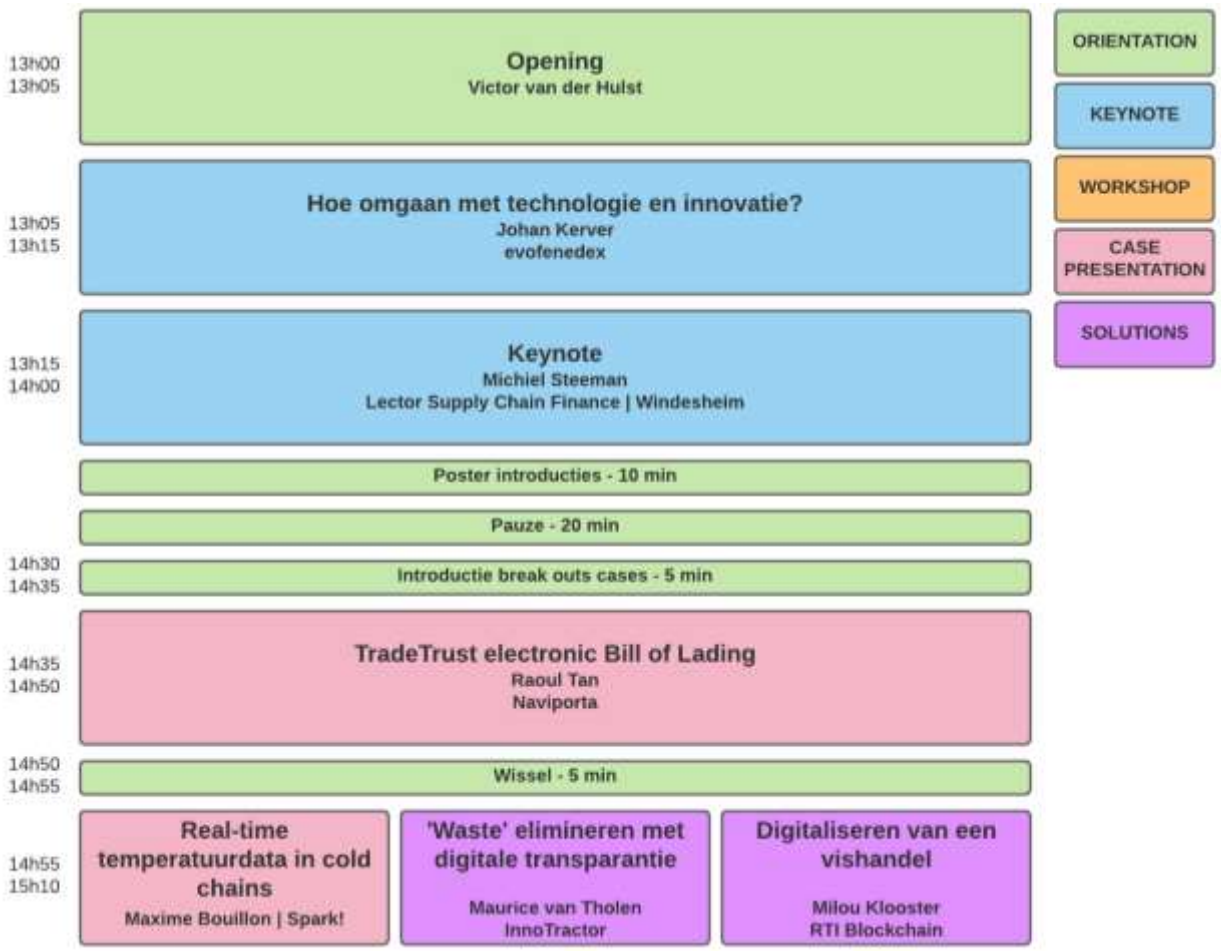
Of scan de QR code met de camera

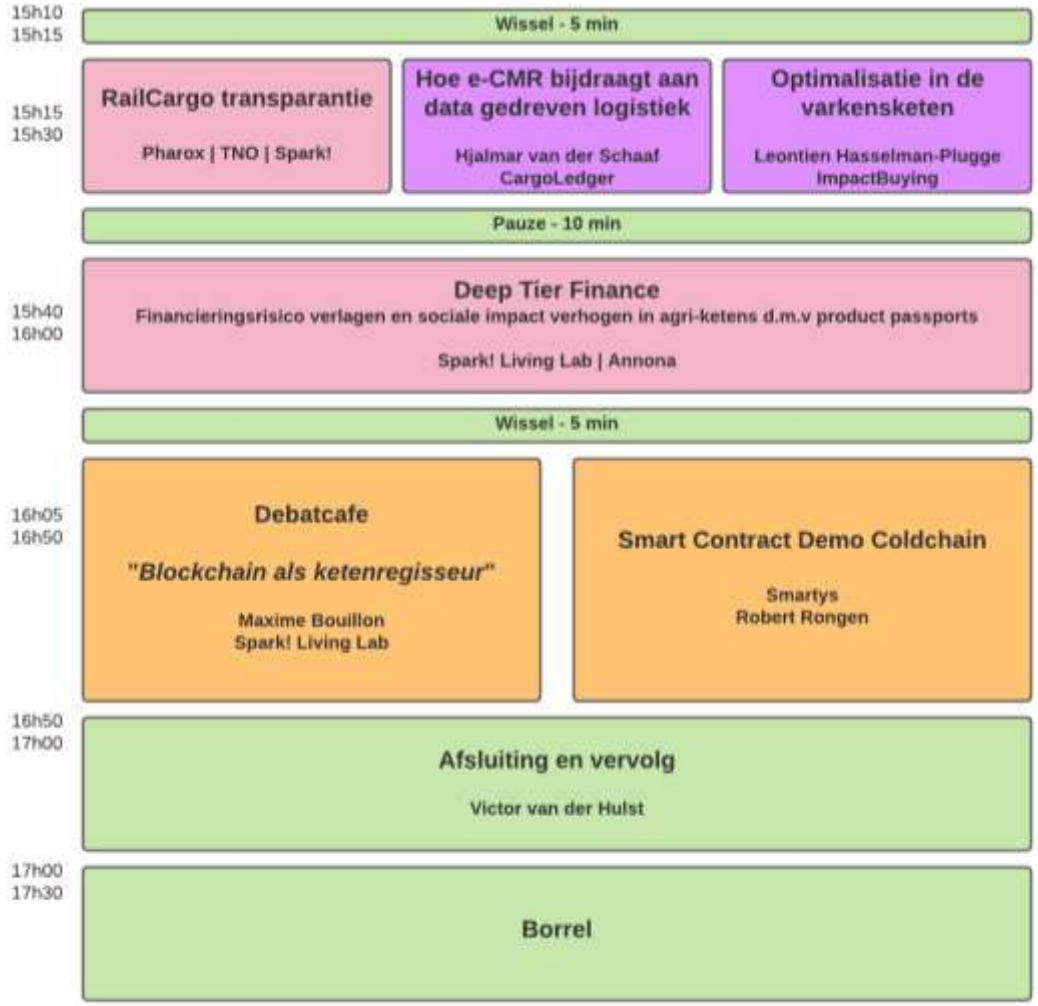
SPARK! Living Lab
Supply Chain 4.0

Agenda

16 juni 2022 - Zoetermeer

Agenda


13h00
13h05
Opening
Victor van der Hulst
13h05
13h15
Hoe omgaan met technologie en innovatie?
Johan Kerver
evofenedex
13h15
14h00
Keynote
Michiel Steeman
Lector Supply Chain Finance | Windesheim
Poster introducties - 10 min
Pauze - 20 min
14h30
14h35
Introductie break outs cases - 5 min
14h35
14h50
TradeTrust electronic Bill of Lading
Raoul Tan
Naviporta
14h50
14h55
Wissel - 5 min
14h55
15h10
Real-time temperatuurdata in cold chains
Maxime Bouillon | Spark!
'Waste' elimineren met digitale transparantie
Maurice van Tholen
InnoTractor
Digitaliseren van een vishandel
Milou Klooster
RTI Blockchain
ORIENTATION
KEYNOTE
WORKSHOP
CASE PRESENTATION
SOLUTIONS


15h10
15h15
Wissel - 5 min
15h15
15h30
RailCargo transparantie
Pharox | TNO | Spark!
Hoe e-CMR bijdraagt aan data gedreven logistiek
Hjalmar van der Schaaf
CargoLedger
Optimalisatie in de varkensketen
Leontien Hasselman-Plugge
ImpactBuying
Pauze - 10 min
15h40
16h00
Deep Tier Finance
Financieringsrisico verlagen en sociale impact verhogen in agri-ketens d.m.v product passports
Spark! Living Lab | Annona
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Smart Contract Demo Coldchain
Smartys
Robert Rongen
16h50
17h00
Afsluiting en vervolg
Victor van der Hulst
17h00
17h30
Borrel

Hoe omgaan met technologie en innovatie?

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	Digitaliseren van een vishandel Milou Klooster RTI Blockchain

Johan Kerver

MT-lid evofenedex

expertise Supply Chain Management, Transportation, Digitalization and Safety

Keynote

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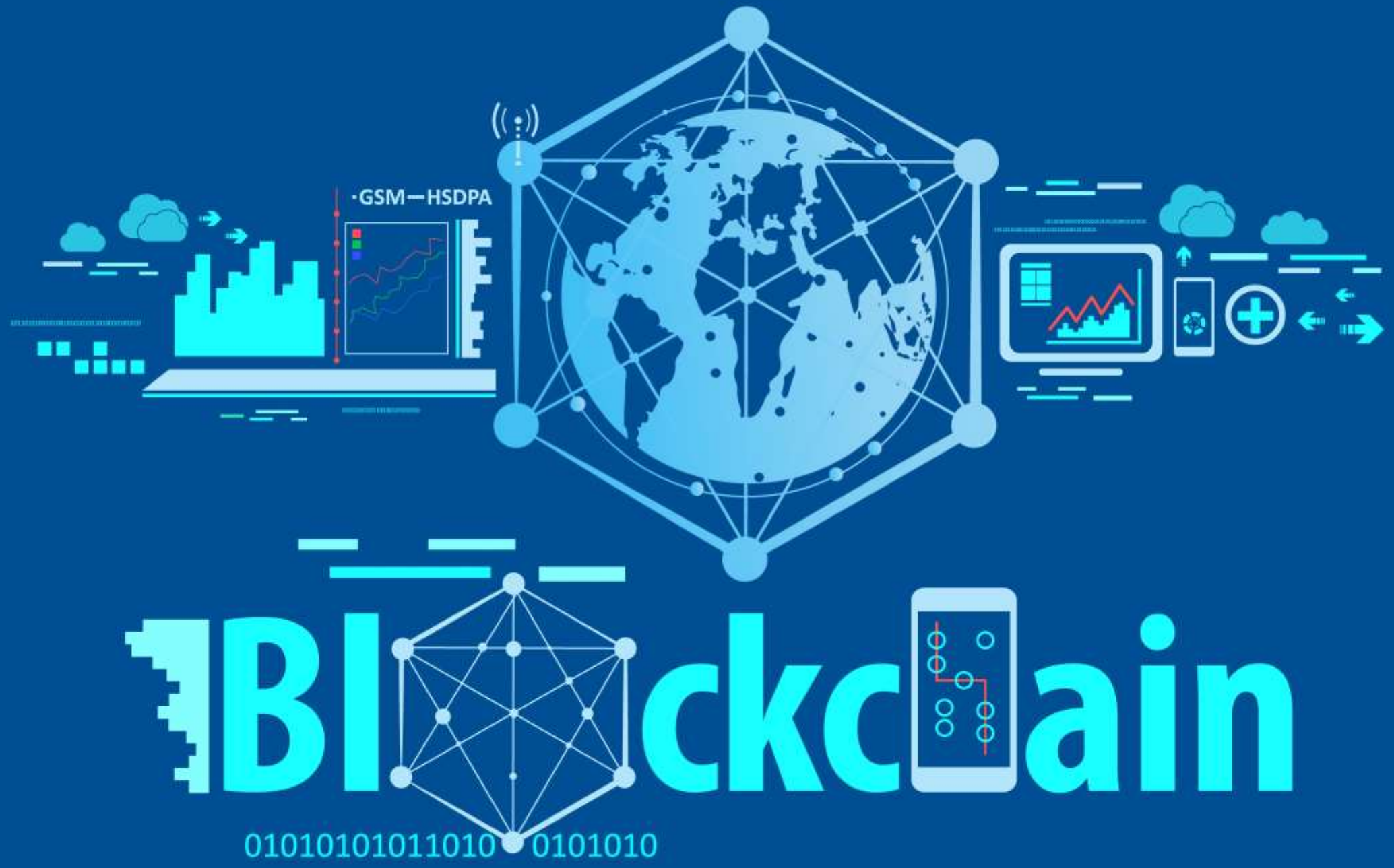
Michiel Steeman

Hogeschool Windesheim

Lector Supply Chain Finance


·GSM—HSDPA
Blockchain
01010101011010 0101010

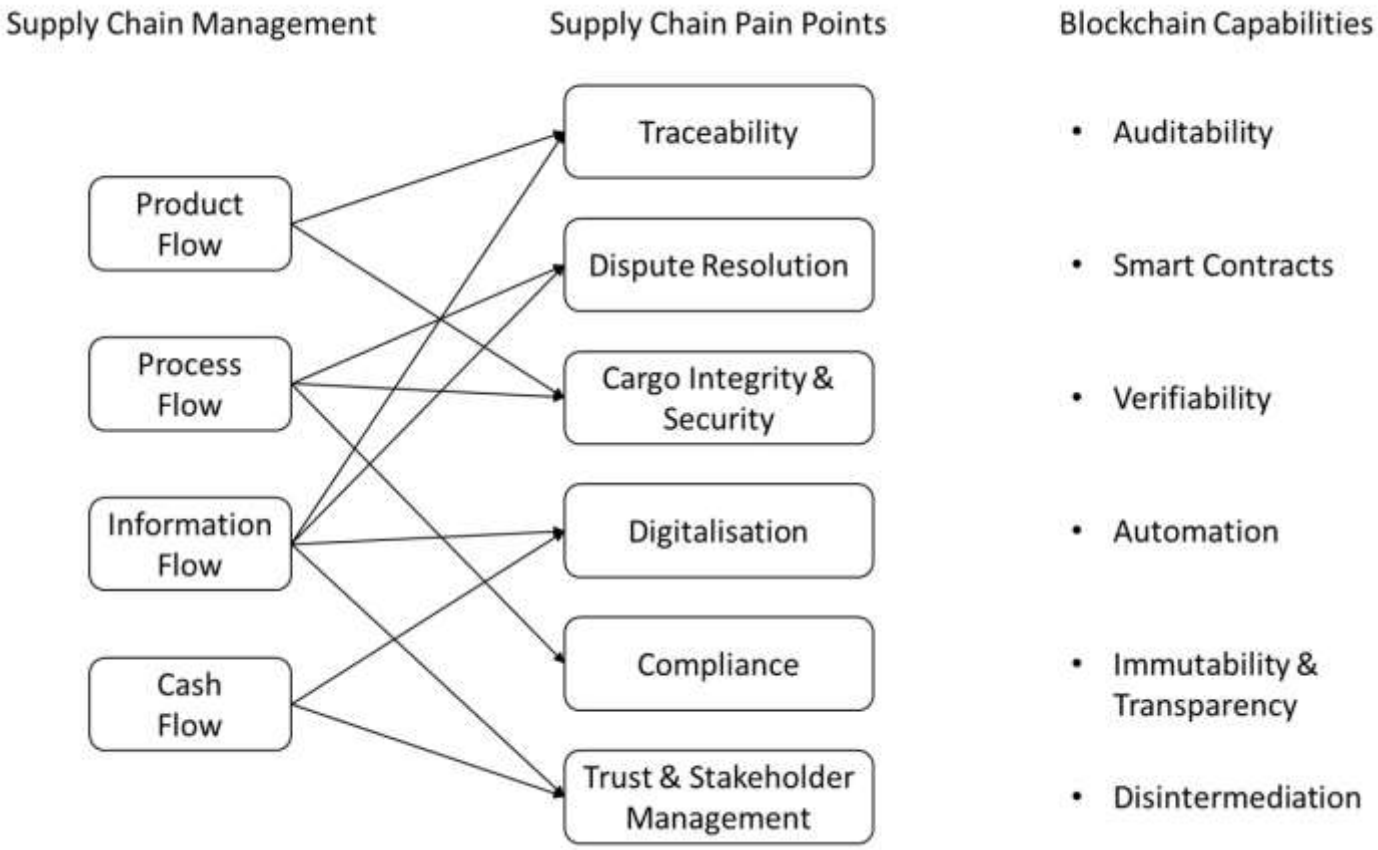
Project

November 2019 - Juni 2022

Goals and objectives

- To explore the application of **data sharing** technologies in **supply chain and logistics** to support and advance the circular economy
- Four **physical hubs** and a **virtual repository** to support SMEs in developing **use-cases** and experiment with applications in supply chain and logistics
- Build a **community** of interested **stakeholders**
- **Connect** the digital world with the **world of things** to create **intelligent assets**

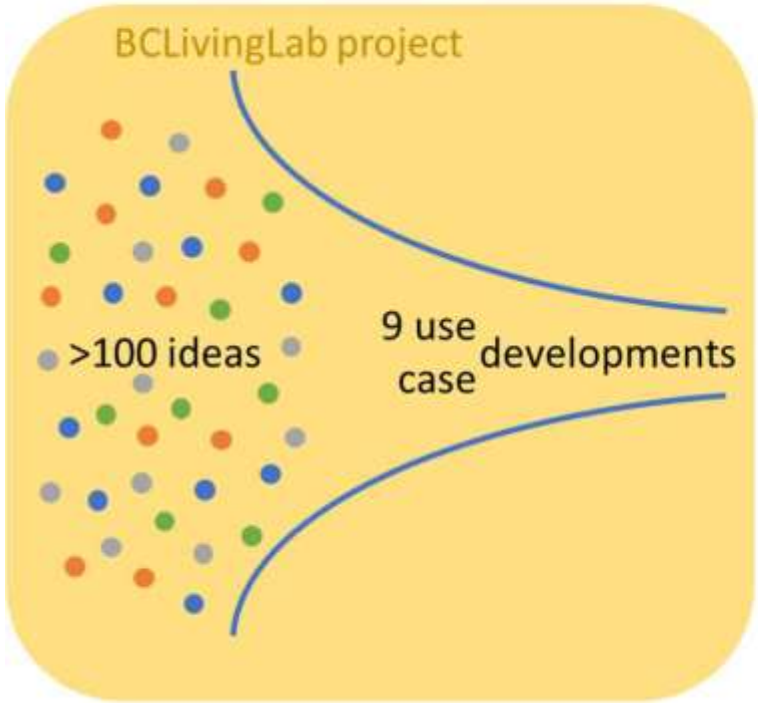
Blockchain in supply chain



M. Petersen, N. Hackius and B. v. See, "Mapping the Sea of Opportunities: Blockchain in Supply Chain and Logistics," Research Gate, 2017

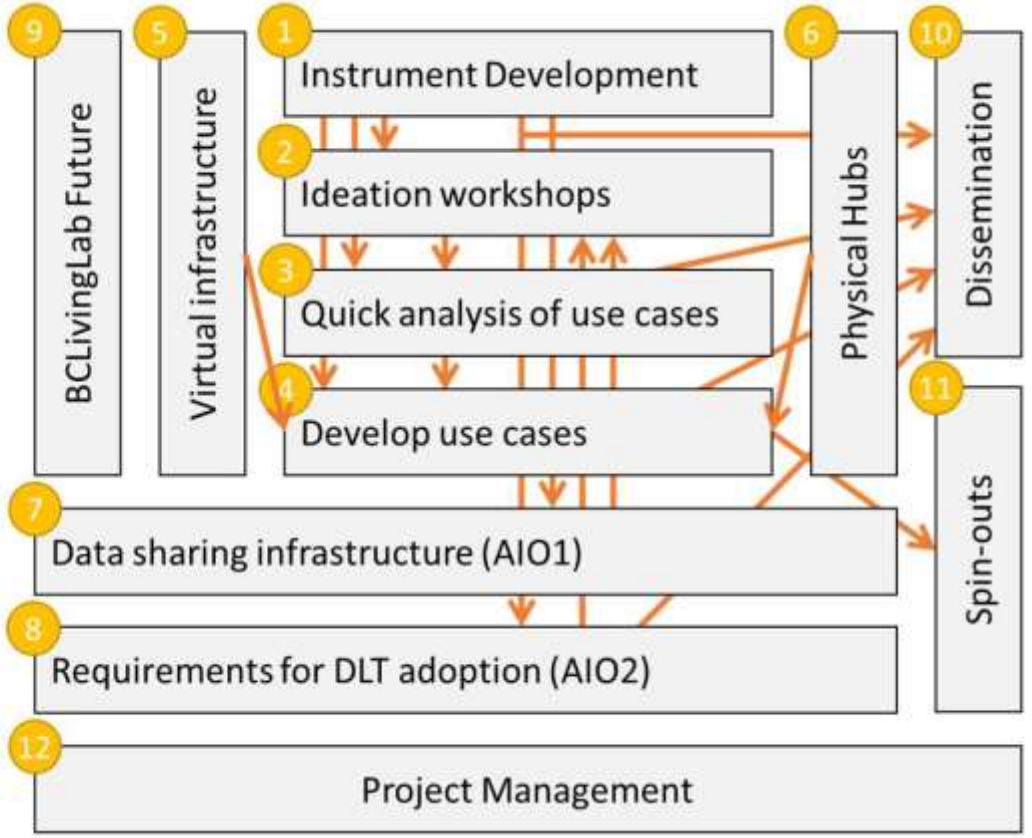
Kick-off November 2019

Spark! Living Lab - aanpak

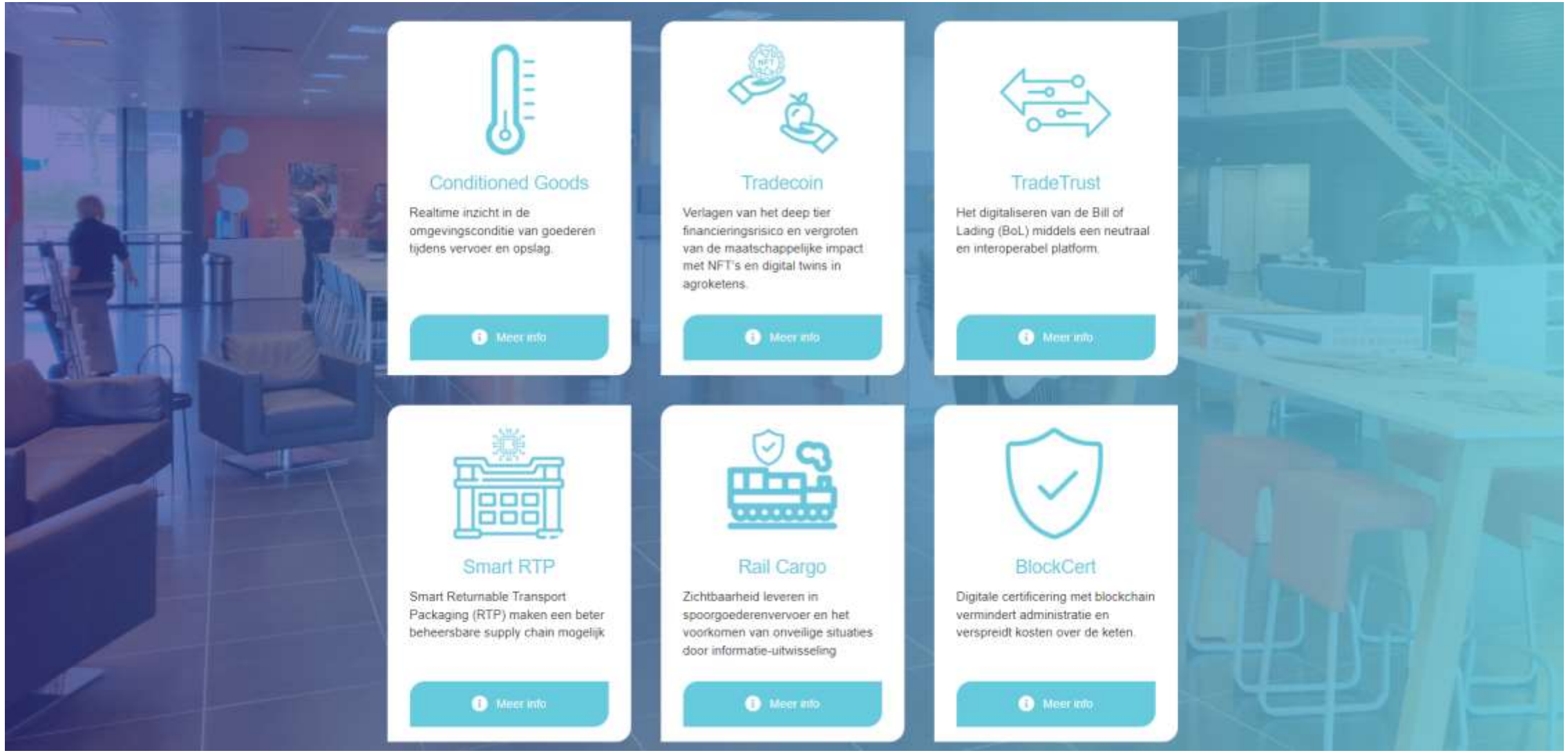


Follow –up activity

Scale up to real life applications



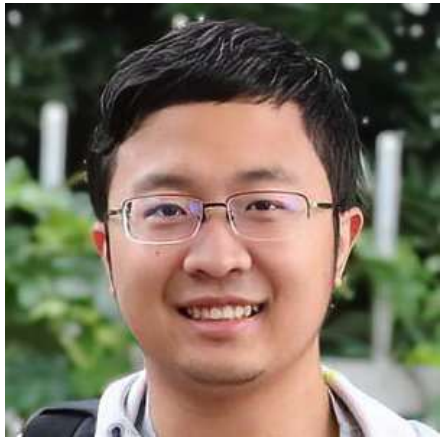
Use cases



https://sparklivinglab.nl/usecases/

Onderzoek door PhD studenten

Jelle Vos
PhD student
TU Delft



Tianyu Li
PhD student
TU Delft

Dr. Zeki Erkin
associate professor
Cyber Security Group
TU Delft

https://sparklivinglab.nl/research/

Spark! Living Lab Figures & Facts

- Begon als BCLivingLab
- Consortium meetings: 29 (13 live and 16 online)
- Projectleden (partners): 36
- Betrokken studenten: 80+
- Betrokken bedrijven: 15+
- LinkedIn volgers: 235

BlockStart project

Interreg NWE-project

Interreg North-West Europe Blockstart
European Regional Development Fund

- **Duration:** January 2019 – March 2023
- **Total budget:** 4,9 million euro
- **Funding from Interreg NWE:** 2,9 million euro

- Coordinated by **Brightlands** Smart Services Campus

To help small- to medium-sized enterprises (SMEs) strengthen their competitive positions using **blockchain technology.**

Within the sectors:

- Health
- **Logistics**
- **Agrofood**

Project Partners

Interreg
North-West Europe
Blockstart
European Regional Development Fund

Brightlands
Knowledge crossing borders

hogeschool Windesheim
Dichter bij jou

medicen PARIS REGION | innovation for health

ChainPoint
CONNECTING SUPPLY CHAINS

Multitel
INNOVATION CENTRE

oost nl

BioRegio STERN

UNIVERSITY OF SURREY

Interreg
North-West Europe
Blockstart
European Regional Development Fund

Week 1

Chart your tailored path

Weeks 2-3

Optional business and blockchain coaching

Months 2-6

In-depth training with our experts

0 First contact:

first contact with your Blockstart regional support partner

1 Quick scan survey:

a 30-min questionnaire resulting in a detailed evaluation of your blockchain opportunities

2 Online blockchain primer:

easy-to-understand introduction to blockchain technology for SMEs

3 Balanced strategy review:

a 360˚ look at your business growth strategy with an enterprise expert

4 Business innovation programme:

a 3x half day live workshop to help you identify your best commercial opportunity

5 Feasibility study:

a three-week project working with blockchain consultants, resulting in an actionable plan

6 Tailored live training:

pick from 20+ industry-specific blockchain training courses, from 3 hours to 3 days

Our top SMEs will receive up to €60k worth of additional blockchain solution support.

Menti vervolg!

Open **menti.com** op je smartphone en gebruik de volgende code:

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Of scan de QR code met de camera

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Poster introducties

Maxime Bouillon

Wout Frijters

Aljosja Beije

Conditioned Goods

Realtime inzicht in de omgevingsconditie van goederen tijdens vervoer en opslag.

Meer info

Tradecoin

Verlagen van het deep tier financieringsrisico en vergroten van de maatschappelijke impact met NFT's en digital twins in agroketens

Meer info

TradeTrust

Het digitaliseren van de Bill of Lading (BoL) middels een neutraal en interoperabel platform.

Meer info

Conditioned Goods

Challenges

- Supply Chain is large and growing
- Basic Quality Checks are limited
- Decrease in Visibility within SC
- Overfreezing and inferior products
- Increase in Energy Use and Cost

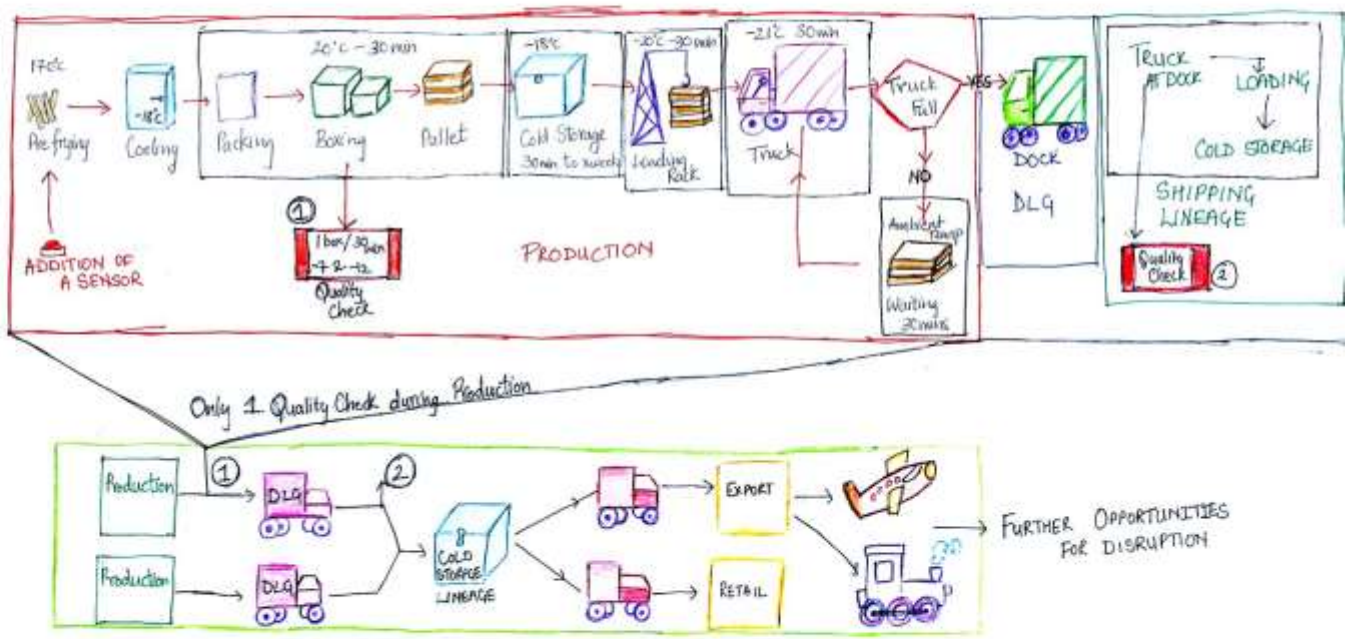
Similar Lack of Data & Visibility in the full SC

How can the use of Blockchain improve the visibility of the temperature of goods in cold chains?

Impact

- Visibility into the Supply Chain
- Better Traceability & Management
- Energy & Cost Efficiency

French Fry Supply Chain



Technological Components

- Blockchain - Data Security
- Sensor - Real-Time Data Collection
- Token - Visibility of Temperature Data at each Step
- DT Digital Twin - Risk Assessment and Monitoring

Supply Chain Finance Risk Platform

How can the use of Blockchain in the Supply Chain unlock Deep Tier Impact Financing?

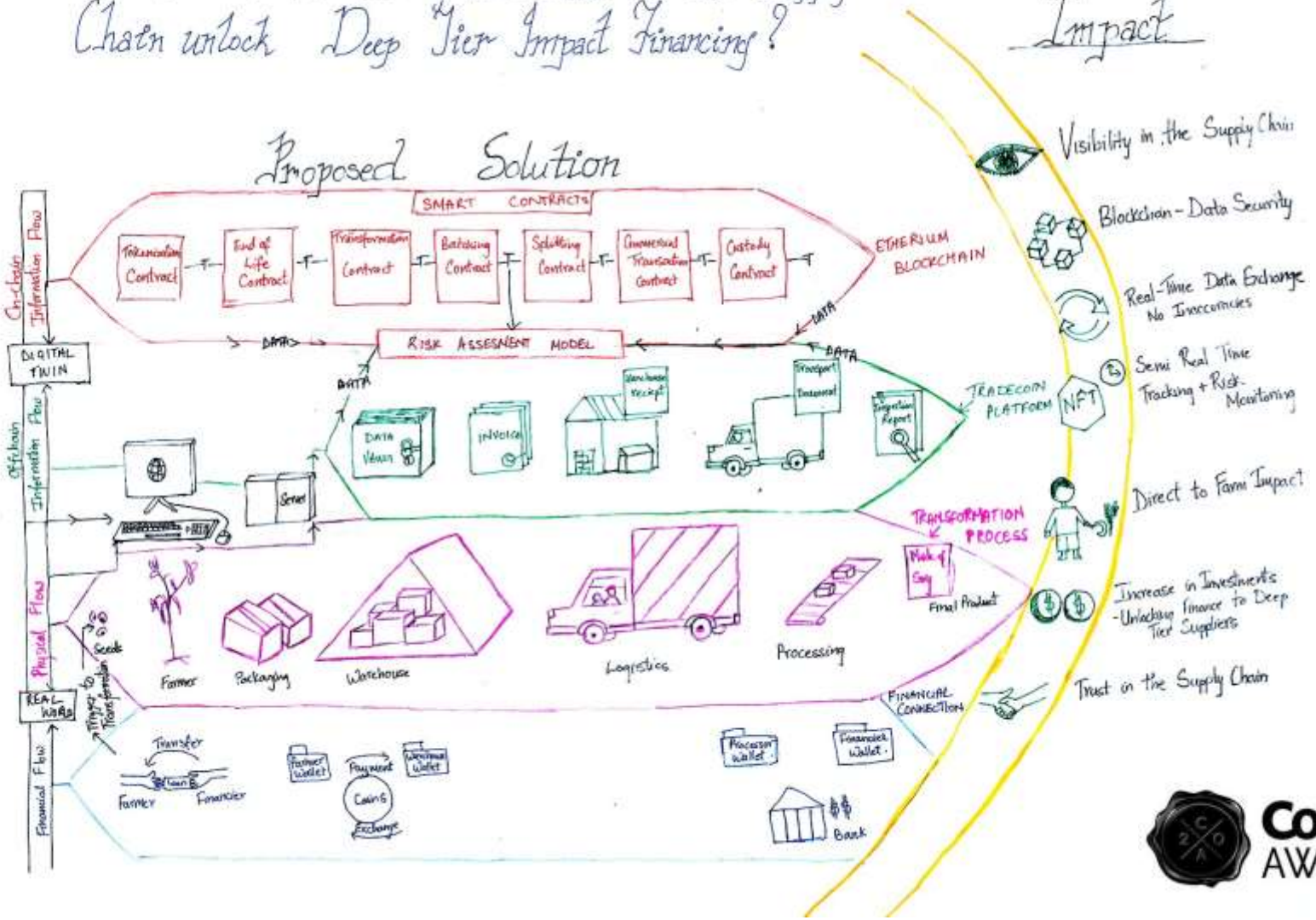
Challenges

- Risk to financiers to pay Suppliers
- Risk to the bank to give credit to financiers
- Limited Visibility deep in the Supply Chain
- No Real Time Tracking
- Finance does not reach Deep-Tier Suppliers

Technological Comp.

- DT — Digital Twin – Risk Assesment + Monitoring
- Blockchain – Data Security and Integrity
- SmC — Smart Contracts – Automated Conditional Transactions
- T — Non-Fungible Token – Material Passport Tracking and Visibility

Proposed Solution



Impact

- Visibility in the Supply Chain
- Blockchain – Data Security
- Real-Time Data Exchange – No Inaccuracies
- Semi Real Time Tracking + Risk Monitoring
- Direct to Farm Impact
- Increase in Investments – Unlocking finance to Deep Tier Suppliers
- Trust in the Supply Chain

SPARK!

COMPUTABLE AWARDS 2022

TRADE TRUST

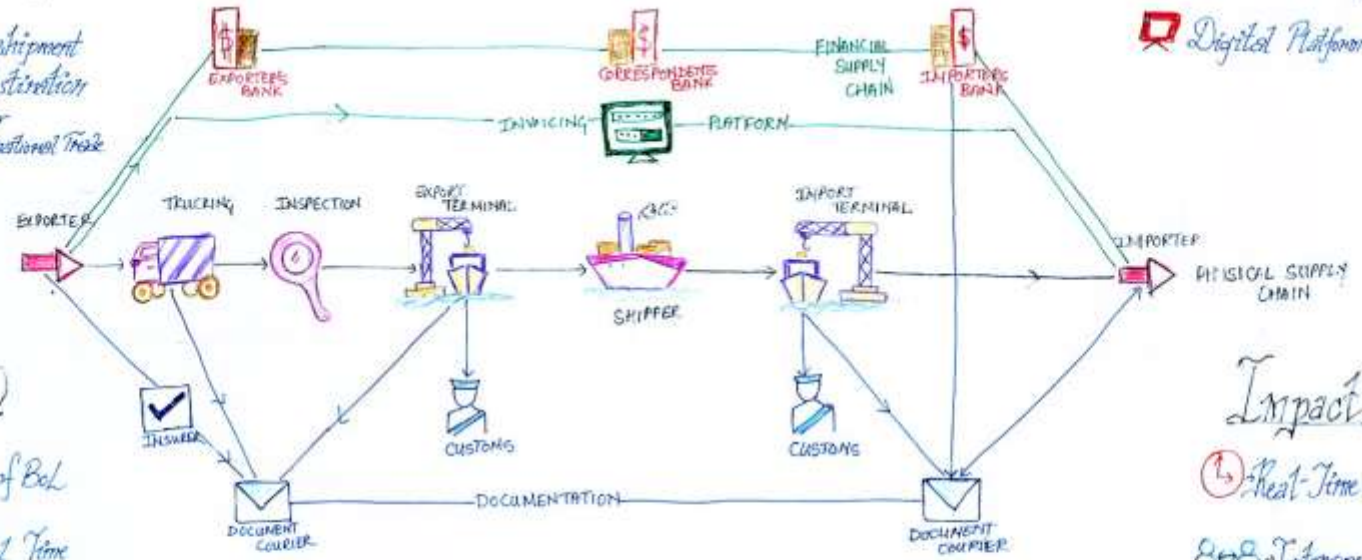
Bill of Lading

- Acknowledgement of Receipt
- Contract → Carrier + Shipper
- Title Deed → Ownership

It must - Travel with the shipment
It shows - Type, Quality, Destination
Paper based, legal, required for International Trade

How can the use of Blockchain make the eBL process more efficient?

PROPOSED SOLUTION



Technological Components

- Ethereum BC → Open Source & Data Security
- Smart Contracts - Data Authentication and Optimization
- Token → Tracking and Visibility
- Digital Platform → Secure Data Vault

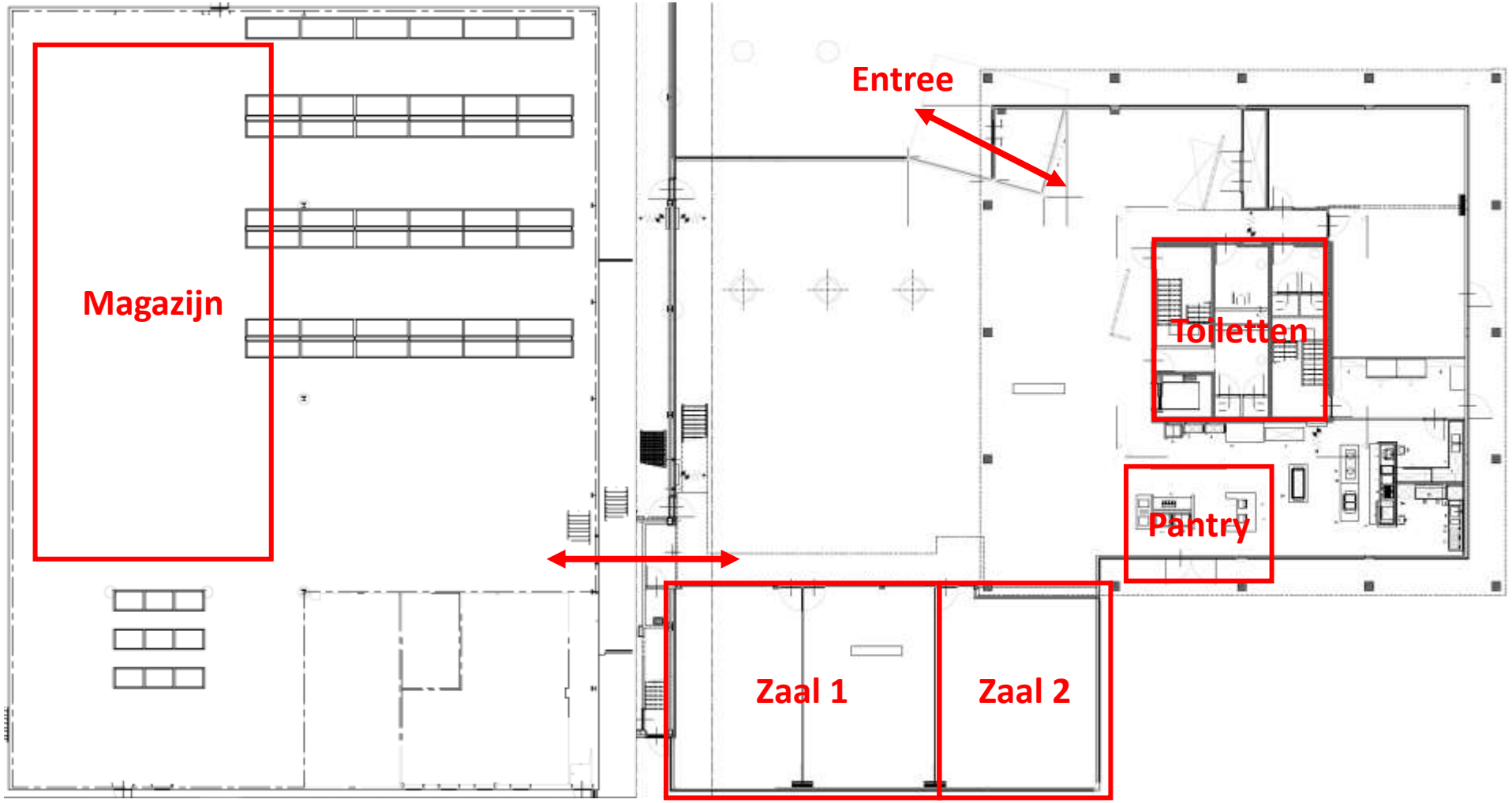
Electronic BoL (eBL)

- Electronic - With all data of BoL
- Invoicing Platform Real Time
- Paperless, Not yet legal
- Blockchain Based, Secure
- Different levels of Access
- Visibility in the Supply Chain

Impact

- Real-Time Access & Updates
- Interoperable & Secure
- Visibility & Tracking of Goods
- Increase in SME Participation
- Secure, faster, efficient global trade
- Sustainable & Cheaper Transport

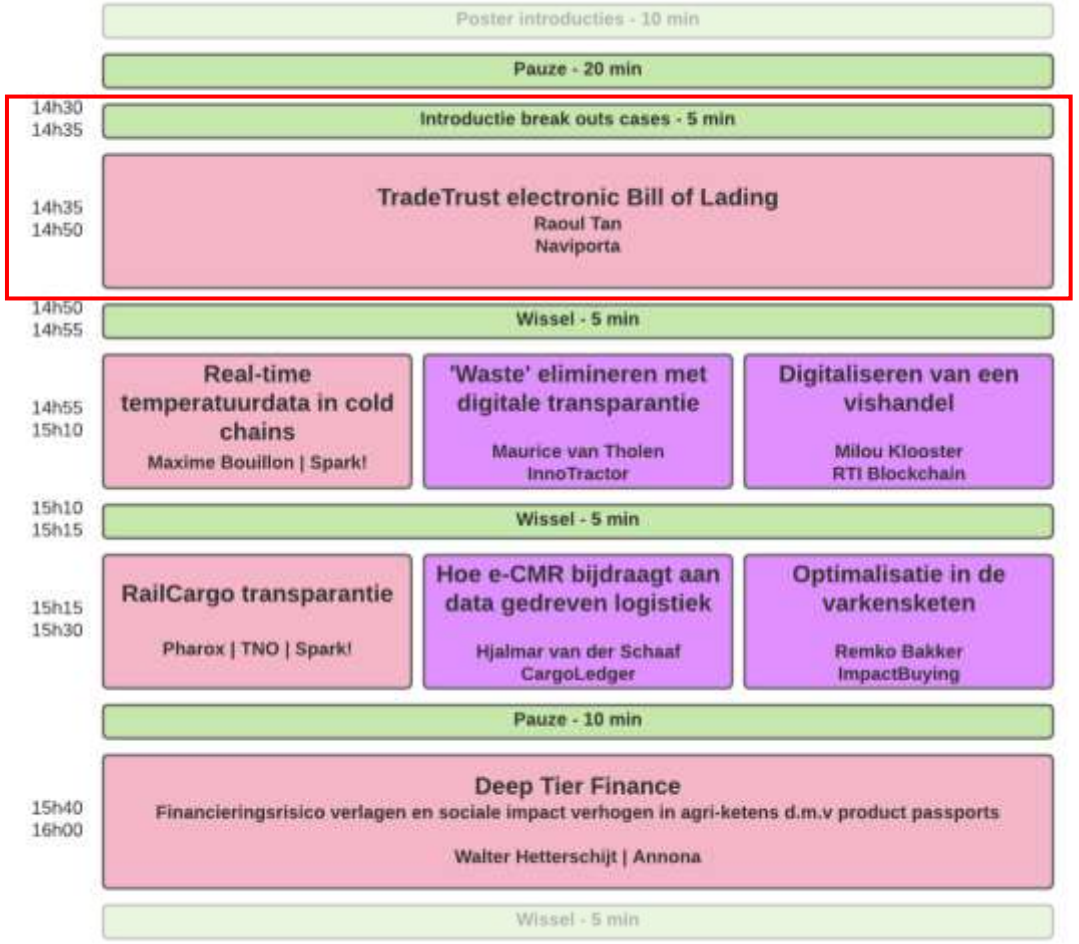
Plattegrond



Coffee break...

00:00

Cases



Introductie break out cases

Port of Rotterdam

ImpactBuying
PROVEN POSITIVE IMPACT

naviporta
PROPELS SEAMLESS GLOBALTRADE

RTI Blockchain

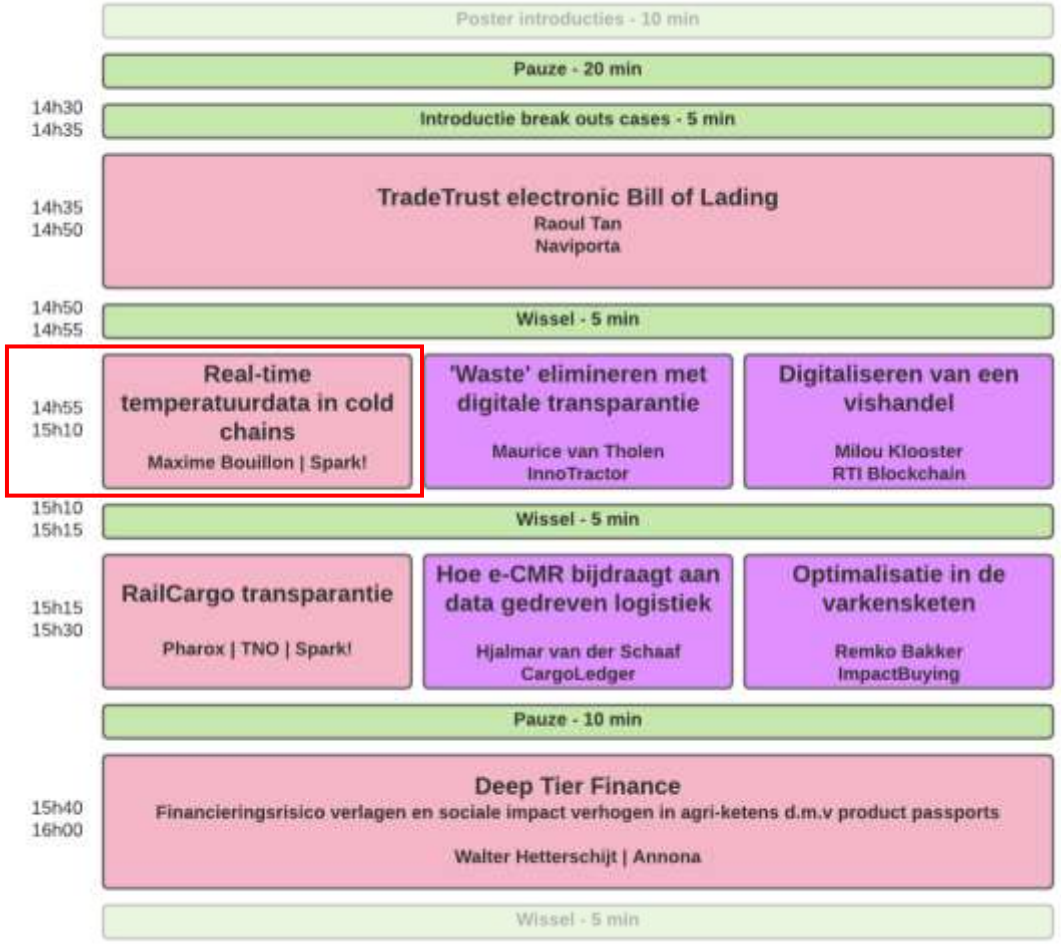
LambWeston
SEEING POSSIBILITIES IN POTATOES

CARGOLEDGER
digital transformation of the supplychain

InnoTractor

PHAROX
LOGISTICS INTELLIGENCE

Cases



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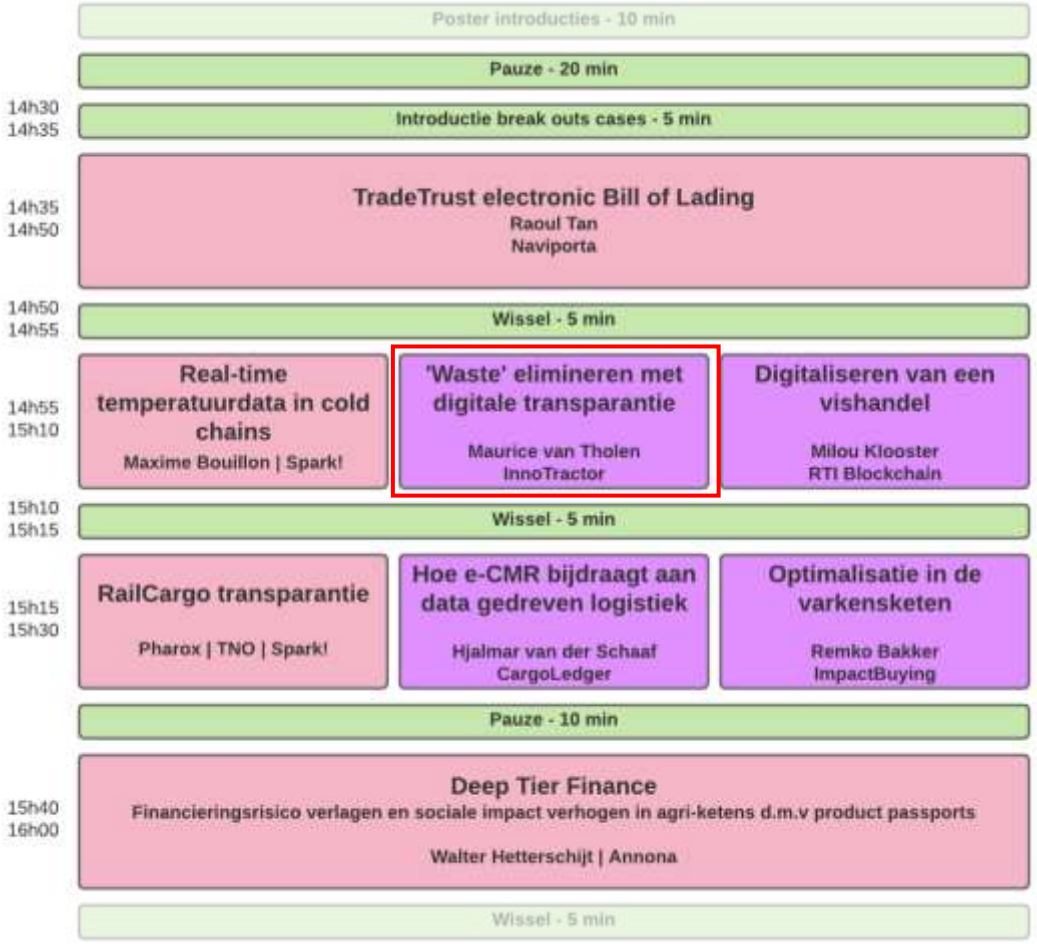

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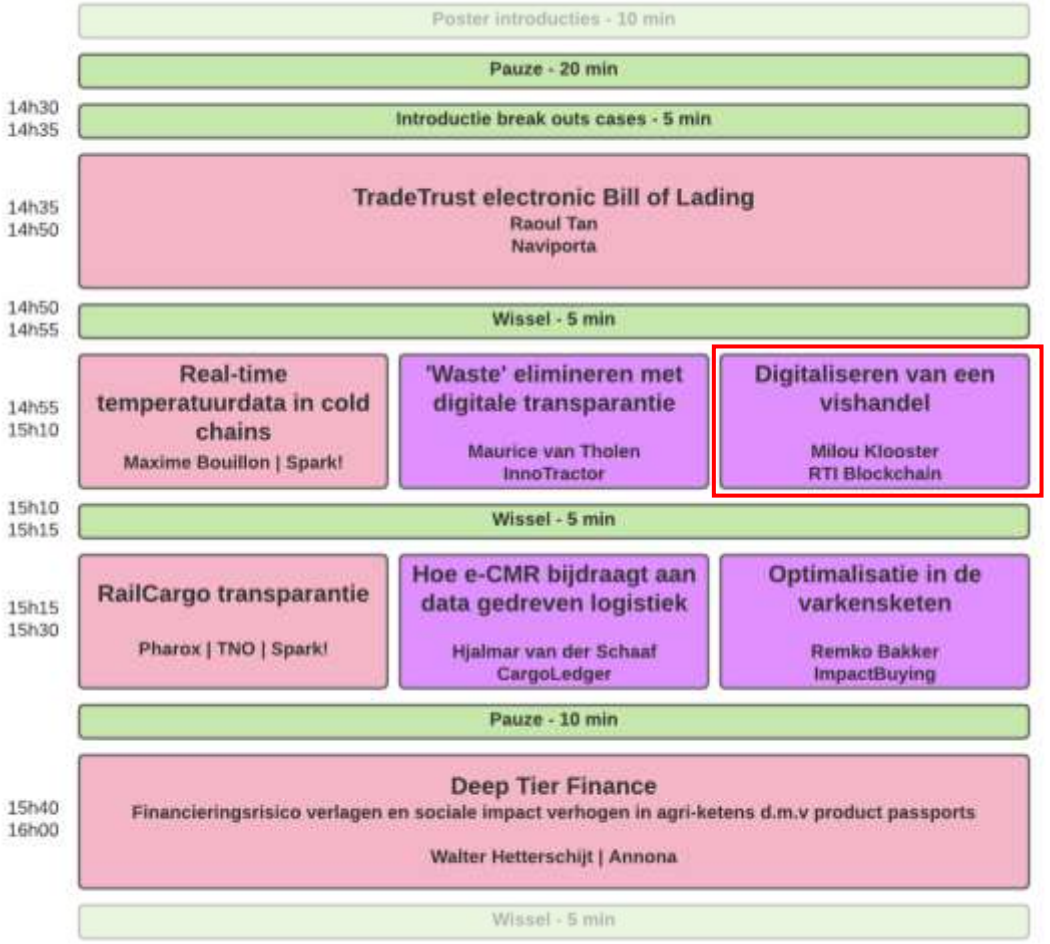

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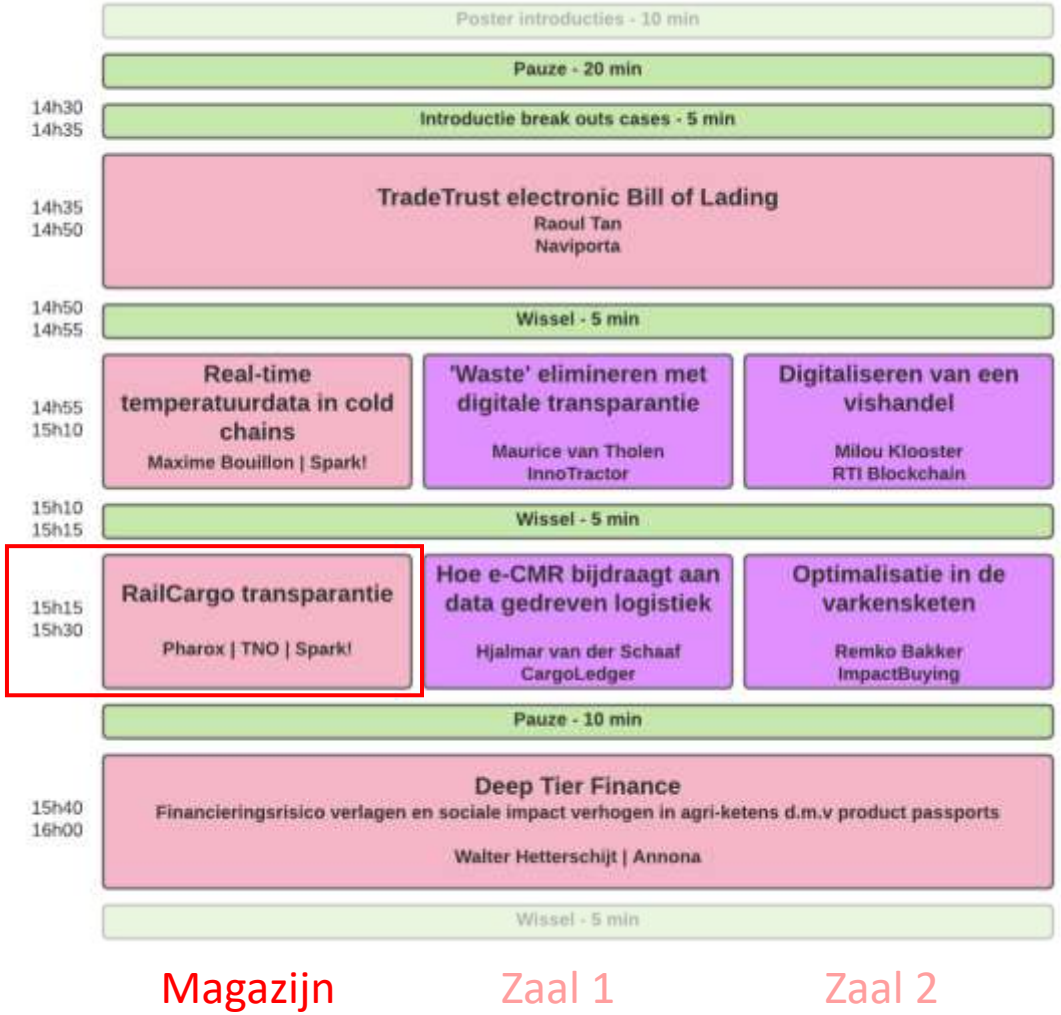

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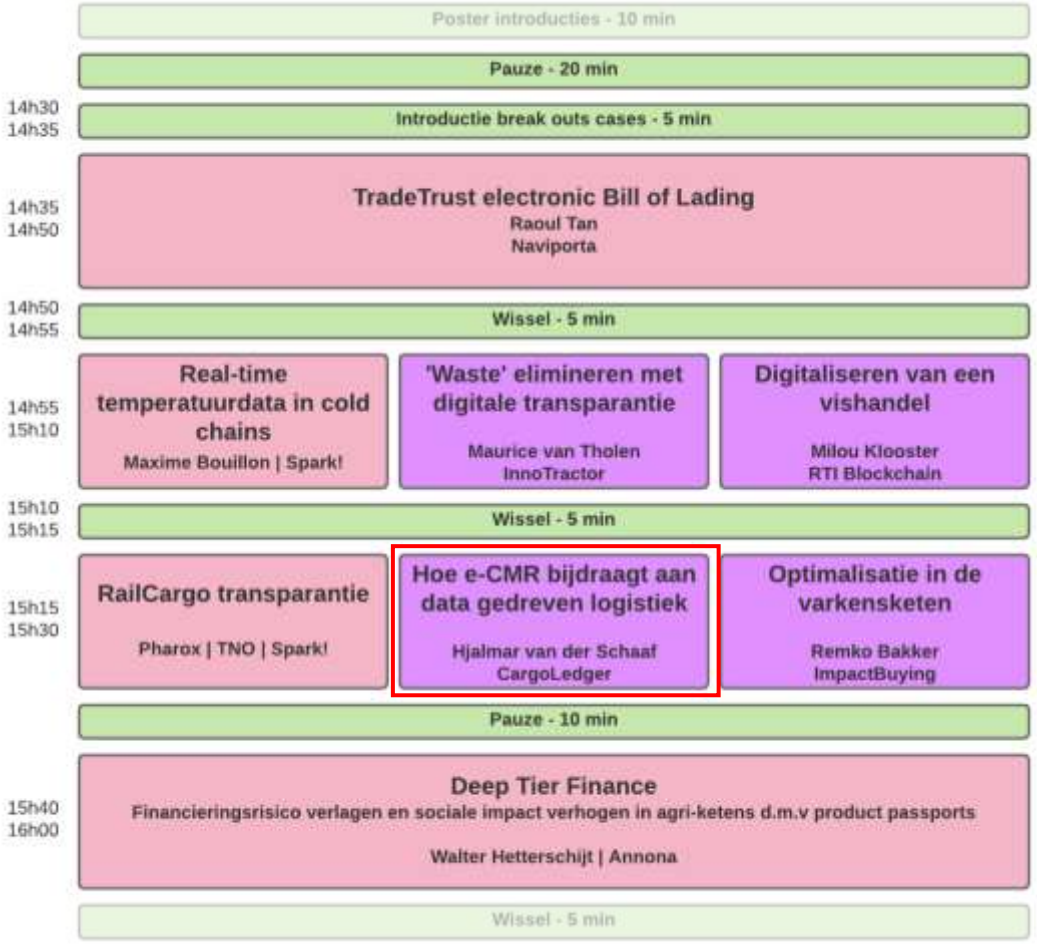

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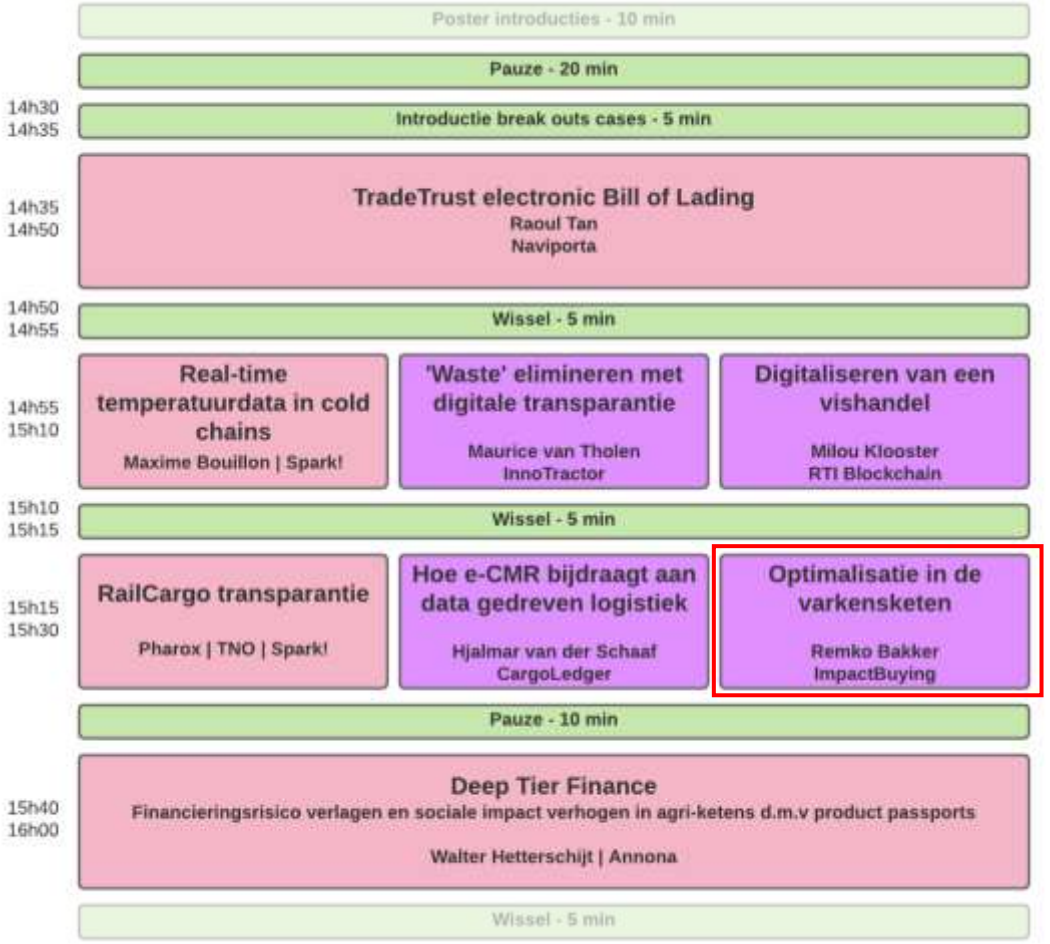

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	Pauze - 10 min		
15h40 16h00	Deep Tier Finance Financieringsrisico verlagen en sociale impact verhogen in agri-ketens d.m.v product passports Walter Hetterschijt | Annona		
	Wissel - 5 min		

Deep Tier Finance

Walter Hetterschijt

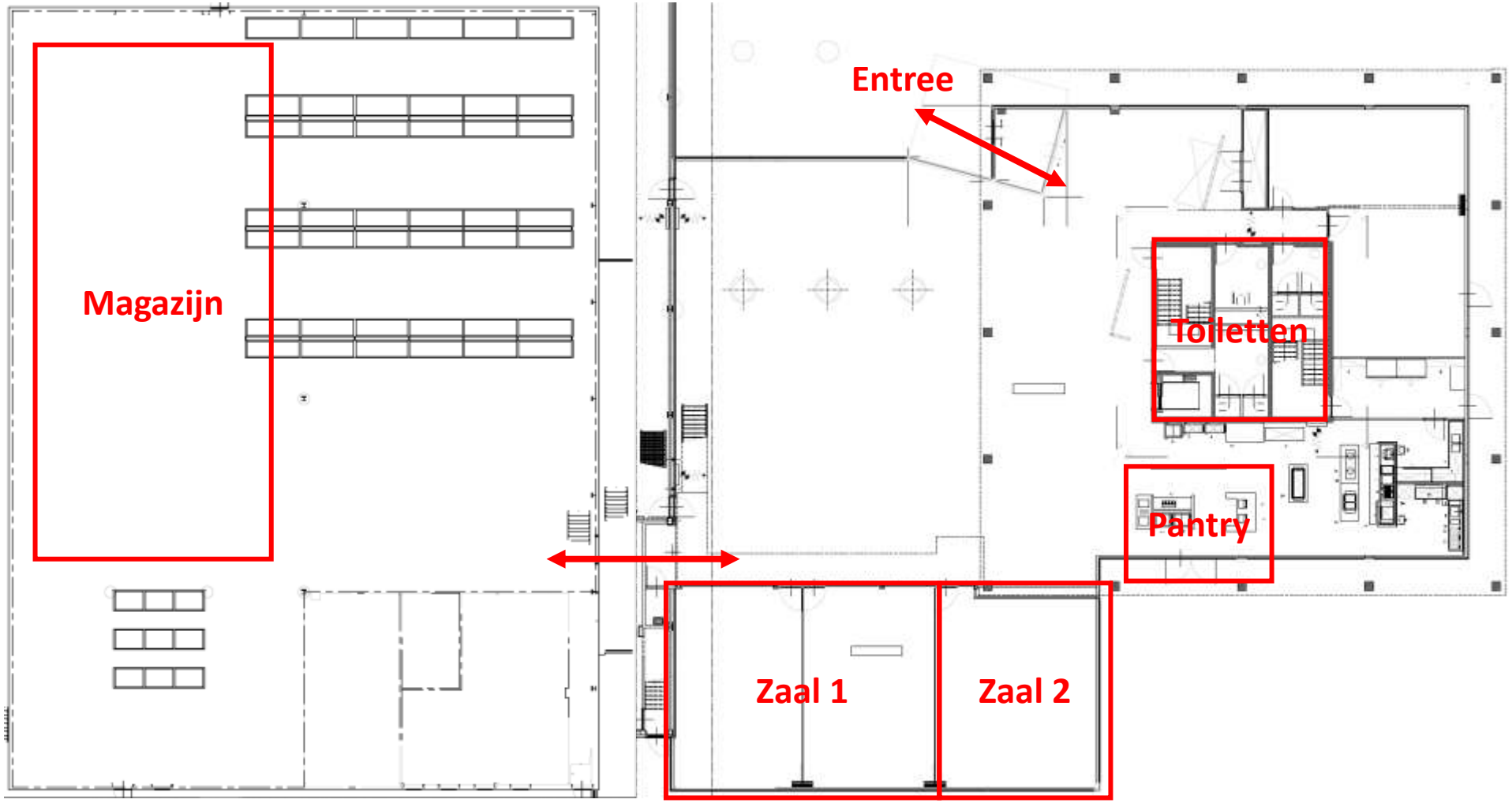
CEO

Annona

annona

DEEP TIER IMPACT FINANCE

Plattegrond



Starting in...

00:00

LambWeston

SEEING POSSIBILITIES IN POTATOES

Straks: **Realtime temperatuurdata in cold-chains**

Maxime Bouillon

Agenda

Pauze - 10 min

15h40
16h00 — Deep Tier Finance
Financieringsrisico verlagen en sociale impact verhogen in agri-ketens d.m.v product passports
Spark! Living Lab | Annona

Wissel - 5 min

16h05
16h45 — Debatcafe
"Blockchain als ketenregisseur"
Maxime Bouillon
Spark! Living Lab

Smart Contract Demo Coldchain
Smartys
Robert Rongen

Wissel - 5 min

16h50
17h00 — Afsluiting en vervolg
Victor van der Hulst

17h00
17h30 — Borrel

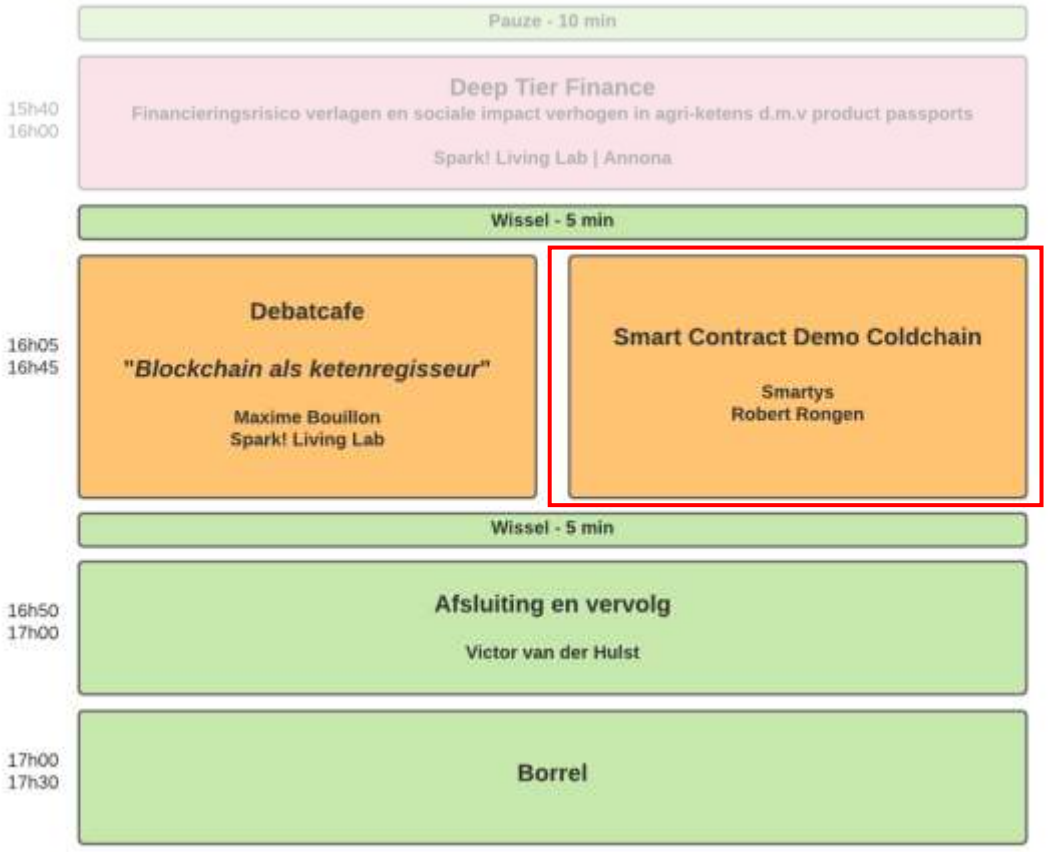
Magazijn | Zaal 1 | Zaal 2

Debatcafe

Maxime Bouillon

Onderzoeker
Windesheim lectoraat SCF

Agenda



Magazijn Zaal 1 Zaal 2

Smart Contract Demo

Robert Rongen
Oprichter
Smartys

smartys

Starting in...

00:00

Straks:

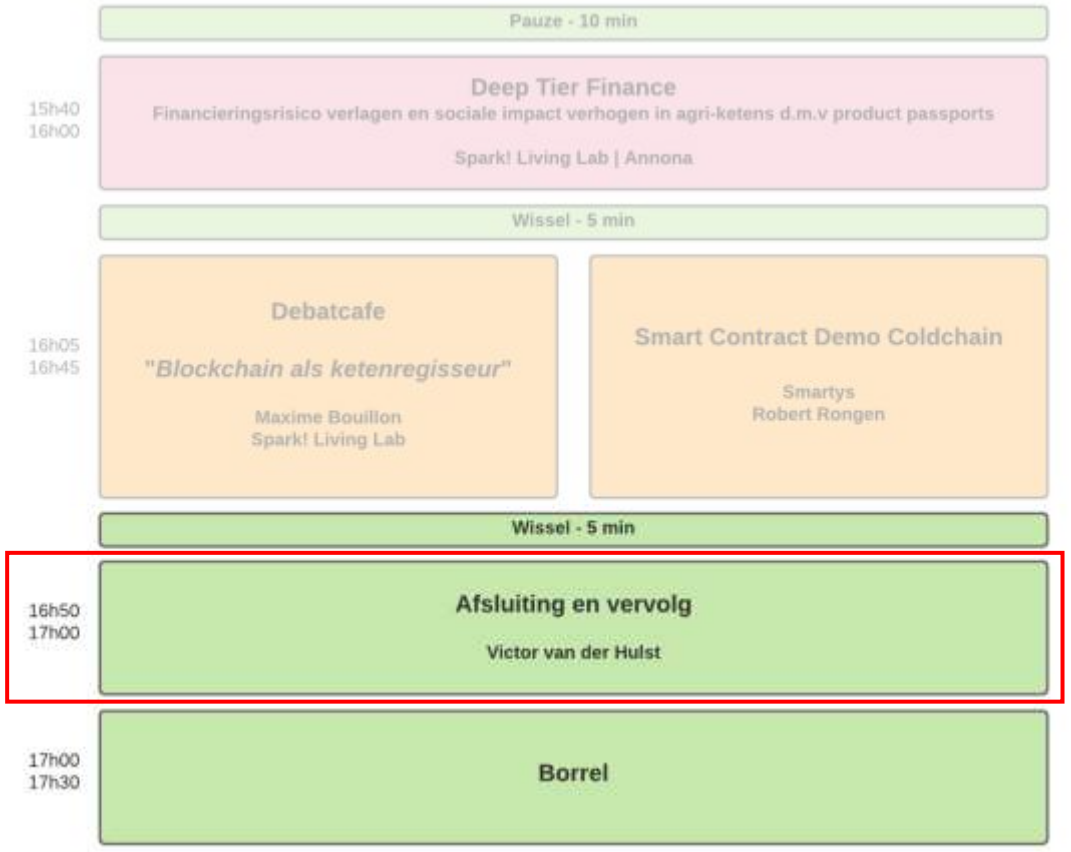
Afsluiting en vervolg
Victor van der Hulst
Magazijn

NU:

Debatcafe
Maxime Bouillon
ZAAL 1

Smart Contract Demo
Robert Rongen
ZAAL 2

Agenda



Afsluiting en vervolg

Adoption of Blockchain technology within the supply chain

Dennis Krijger
MSc student
RUG

Mervyn Robert
MSc student
RUG

Luca Gelsomino, PhD
Assistant Professor
Economics and Business
RUG

rijksuniversiteit groningen

https://sparklivinglab.nl/research/

Publicaties

- Eindrapport verschijnt **deze zomer**
- Alle use cases en onderzoeksresultaten staan op de **website**
- Onderzoeksresultaten worden gepubliceerd

Vervolgproject

SPARK! Living Lab Supply Chain 4.0

Sharehouse

Versnellen van digitalisering: transitie en adoptie

Vier cases centraal:

NFT Supply chain digital twin

FC Uitwisseling fytosanitaire data en certificaten

3D 3D Printing Hub

IoT Sensordata platform

Andere projecten

- SPRONG Kansen met Data
- NWA-ORC At Pace – Circulariteit in de bouw
- Order-to-Cash / Purchase-to-Pay
- Resilience
- …en meer!

Menti afronder!

Open **menti.com** op je smartphone en gebruik de volgende code:

3380 3442

Of scan de QR code met de camera

For more information, please contact:

Victor van der Hulst | Program manager Spark! – Living Lab
Strategic Entrepreneurship Research Centre | Business, Media and Law

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