The Management Perspective on Innovation Procurement of Data-Driven Solutions

WEBINAR ROUND TABLE

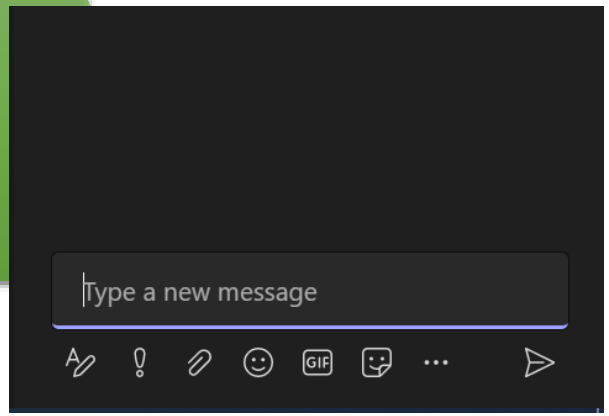
15 December 2021

Watch the replay video of the webinar via: https://youtu.be/8FsvLnfSDBI

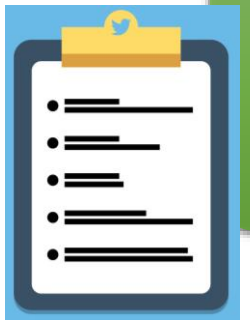
Introduction & Agenda

House rules

It is possible to ask questions in the private chat



The recording of the webinar will be made available on the EAFIP website



The list of participants will not be disseminated

In case there are technical problems, the session will be recorded and published

Agenda

Time (CEST)	Topic
10:30 – 10:35	**Introduction** **House rules** **Objective of the session** **Tour de table**
10:35 – 10:55	**<u>First round topic</u>:** Added value of data-driven solutions: - Use of data-driven solutions for decision making processes. - Topics/challenges to tackle with data-driven solutions. - Examples
10:55 – 11:00	**Insights-summary & questions**
11:00 – 11:20	**<u>Second round topic</u>:** Consequences of integrating Privacy and Security aspects into data-driven solutions.
11:20 – 11:25	**Insights-summary & questions**
11:25 – 11:45	**<u>Third round topic:</u>** Data-driven solutions and the transparency of algorithms and software: - Consequences for the procurement process and contract monitoring.
11:45 – 11:55	**Insights-summary & questions**
11:55 - 12:00	**Wrap up & Closure**

Tour de table:

Stephan Corvers
CEO Corvers Commercial & Legal Affairs, Netherlands

Gerard Smits
CEO Waterschapshuis, Netherlands

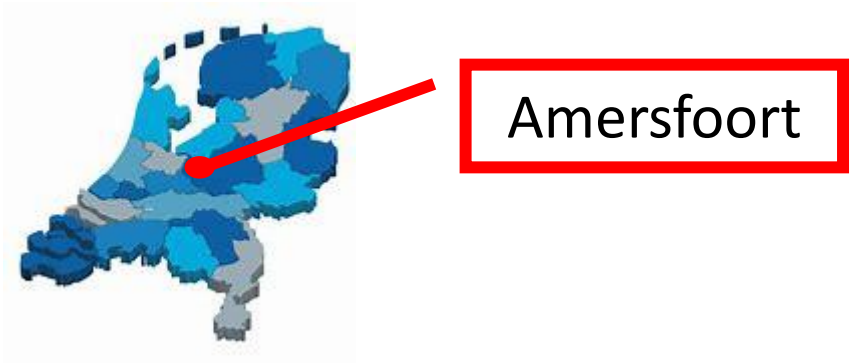
Karl Farrugia
Managing Director
Ministry for Health CPSU, Malta

Thymo van den Brug
Manager Information Innovation
ProRail, Netherlands

Gerard Smits

Secretary Director of Het Waterschapshuis.

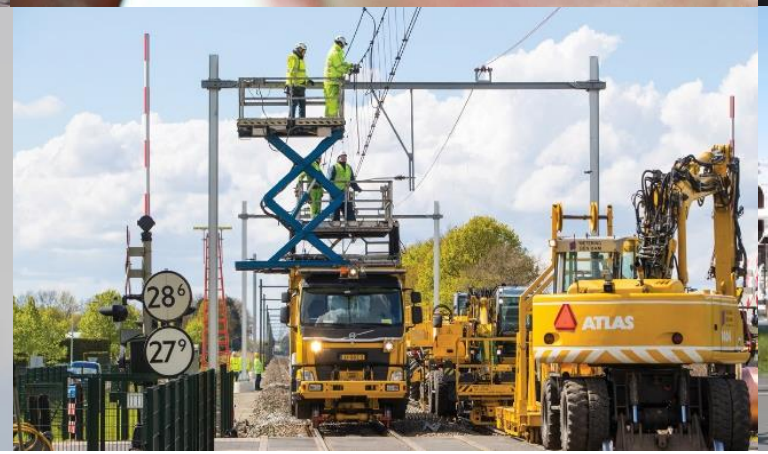
Het Waterschapshuis is the management and implementation organization for the 21 water boards in the field of information and communication technology



Ing Karl Farrugia
Managing Director
Sourcing and Supplies

- As Managing Director Sourcing and Supplies I work within a multidisciplinary team including pharmacists, pharmacy technicians, engineers, clinicians and technologists. My team within CPSU, POYC and NBTC is involved in market research, procurement, financial resources, quality, regulatory, supplies and distribution and our main objective is the patient. Being a Biomedical engineer by profession and working for more than 20 years within the National Health System I seem our work with professionals as the fulcrum to the healthcare industry.



ProRail, Netherlands

Thymo van den Brug
Asset Management
Manager Information Development
thymo.vandenbrug@prorail.nl

ProRail

First round topic:
Added value of data-driven solutions

- Use of data-driven solutions for decision making processes.
- Topics/challenges to tackle with data-driven solutions
- Examples

hetWaterschapshuis

De kracht van samen

The management perspective on innovation procurement of data driven solutions

EAFIP: Webinar round table for public buyers

15 december 2021

Added value of data-driven solutions

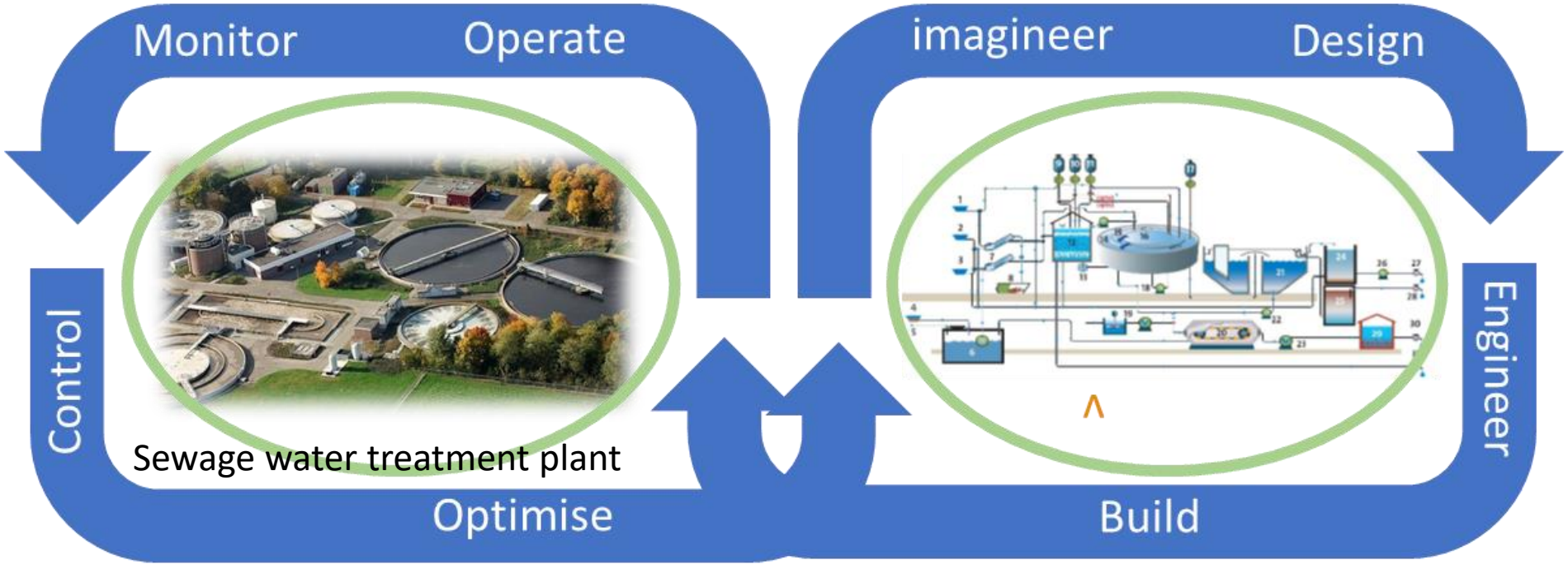
Sanitation and water purification installations

WBL: Digital twin

Data Science / AI

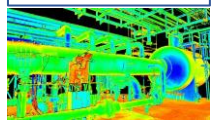
3D VR / AR

What-if simulation



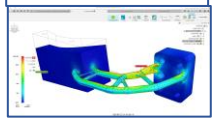
Autodesk/Innovyze **Transcend**

Point cloud scanning



Parametric 3D design

Generative design



Digitalisation Maturity Levels

3D VR / AR

Data Science / AI

What-if simulation

Transformative:
Autonomously taking actions/interventions

Prescriptive:
What should I do?

Predictive:
What will happen?

Informative:
Why did it happen?

Descriptive:
What happend?

Operators with years of experience

Operators with tools such as Z-info

Process automation

Healthcare system in Malta

Ing Karl Farrugia

Managing Director

Central Procurement & supplies unit

Ministry for Health Malta

History

- Malta's history of providing publicly funded health care dates all the way back to 1372, when its first hospital was already functioning. When the Knights of St. John first arrived in Malta in the 16th century, one of their first projects was the building of hospitals.
- Malta today has a public healthcare system, called the government healthcare service, where medical services are free at the point of delivery and also private healthcare system.
- The country has a strong base of general practitioner-delivered primary care. Secondary and tertiary care are provided by the country's public hospitals.

World Health Organization

- In the 2000 World Health Organization's ranking of the best healthcare systems around the globe, Malta ranked number five.
- Malta's healthcare system is similar to the British system, with healthcare being free at the point of delivery.
- Malta is the only country in the EU that supplies the actual treatments to the patients that are entitled as opposed to co-financing or re-imbursement.
- Malta has a well-respected healthcare system and residents can choose between the public and private systems.

Public healthcare in Malta

- The Mater Dei Hospital (MDH), is the only intensive care general hospital in Malta.
- It is an acute general and teaching hospital and offers hospital and specialist services. It is one of the largest medical buildings in Europe.
- Patients are admitted to the hospital through a referral by a doctor or through the emergency department.
- Malta's public healthcare system receives funds through taxation and covers any type of treatment, such as hospitalization, surgeries, pregnancy, childbirth and rehabilitation.
- There are eight health centers across the Maltese Islands through which the government provides primary healthcare.
- There are seven public medical centers in Malta and one in Gozo. Apart from general practitioners and nursing services, Malta's health centers also provide a variety of preventive, curative and rehabilitative services, in the form of antenatal and postnatal clinics, gynecology clinics, ophthalmic clinics, diabetes clinics, psychiatric clinics, podiatric clinics, and even physiotherapy, and speech therapy and language pathology clinics. Secondary and tertiary care is offered by many different public hospitals in the country.

Private healthcare in Malta

- With an increasing number of residents opting for private healthcare insurance, there has been an increase in the number of private healthcare clinics and hospitals in Malta.
- Those under the private healthcare system pay every time they visit a doctor. But most doctors working in the private medical care system also work as general practitioners in the state-run hospitals and clinics.
- The Ministry of Health, Elderly and Community Care governs both, the public and private healthcare systems.
- Many local residents choose private healthcare insurance, while some prefer to avail themselves of general practitioner and consultants' services on a 'pay as you go' basis.
- In the islands of Malta and Gozo, nearly all pharmacies offer GP services during certain hours. Some pharmacies also provide specialized doctors.

Healthcare for foreigners in Malta

- Expats moving to Malta pay national insurance contributions to the social security fund.
- This is approximately ten percent of the gross salary for employers and employees.
- The self-employed also make contributions. EU nationals on temporary visits to Malta can use the European Health Insurance Card (EHIC) and receive free medical treatment from public hospitals and clinics.
- The EHIC can be obtained without any charge from your home country. It provides coverage for necessary and emergency treatments.
- However, this card serves as a complement to healthcare insurance and does not substitute it, as it does not cover traveling costs in case of serious conditions, injuries and deaths. It is advisable to figure out what exactly is included in your insurance policy, and remember to bring your EHIC card with you to Malta.
- Expats staying in Malta for more than three months qualify for free healthcare from the government-run hospitals and clinics if they have the E121 form, which needs to be obtained in your home country.
- Once the form is issued, it is registered with the Malta Health Department Entitlement Unit, where you will be issued a Certificate of Entitlement.
- Non-EU nationals are advised to obtain travel insurance that can cover medical costs overseas, including medical evacuation.

Healthcare services around the island

- Malta's primary hospital is the Mater Dei Hospital founded in 2007. It replaced St. Luke's Hospital as the main public general hospital. St. Luke's Hospital in Pietà has now become the second most important hospital in Malta, offering a full range of medical services, such as open-heart surgery, psychiatric treatment and transplant surgery. Other public hospitals in Malta include the Paul Boffa Hospital, an oncology hospital located in Floriana; St Vincent De Paule Hospital, a geriatrics hospital; and the Gozo General Hospital, which is the only hospital on Gozo.
- Malta also has some highly regarded private hospitals that are equipped with the latest technology. In addition to providing healthcare for Maltese residents, these also cater to foreign patients from across the globe.
- The older towns and villages in Malta have local clinics to provide medical care for the population. There are 47 local clinics that are staffed by an administrative that provides prescription medicine, which are prescribed by the health center.
- A GP visits the clinic at a particular time every week to write prescriptions and also to perform routine health checks.

Pharmaceutical services

- Medication that is prescribed during inpatient treatment or for the initial three days after a patient's discharge is free of cost, provided you show your EHIC.
- Any drugs that are prescribed after this duration will carry a charge, and the charges are not refundable under EHIC arrangements.
- If you need to bring your own medicines to Malta, for a particular condition you have, you are required to furnish a letter from your GP stating the type of medicine and the reason for taking them.
- For medicines that come under the controlled drugs category, you are required to comply with regulations on drug exports.
- Pharmacies in Malta are open during normal working hours, except for Sundays, when they are open from 9am-12.30pm in Malta and from 7.30-11am in Gozo.
- Only doctors and consultants are allowed to write prescriptions. Non-prescription drugs are often priced higher than prescription drugs. So, you may end up paying less for a strip of aspirin if it has been prescribed by your GP.
- The national health system reimburses the costs for prescription drugs. There is at least one pharmacy present in each village of the archipelago.

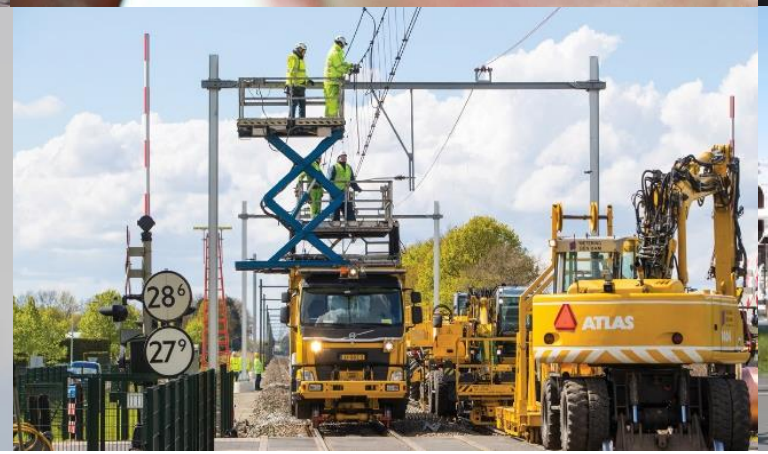
Emergency Medical Care

- Emergency care is provided free of cost to everyone, even those without public health insurance.
- But once a patient's condition is stabilized, proof of insurance status must be furnished.
- Emergency treatment is offered at the emergency ward of all hospitals in Malta, and these are open throughout the year.
- You can avail of emergency services if you require immediate medical attention, or if your doctor has given you a referral, or if there is no GP available to treat you.
- The emergency number for ambulance is 112, and calling is free of charge. Calls are answered in Maltese and English.

Added value of data-driven solutions

- Importance of data compatibility
- Backwards comparison for clinical analysis
- Data that gives value to clinical care
- Outcome based clinical measures
- Clinical Performance based through data collection



ProRail, Netherlands

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ProRail

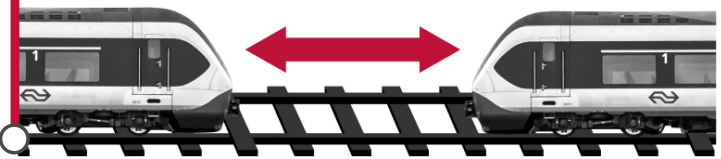

1011
1023
1016

What we do

Managing
stations

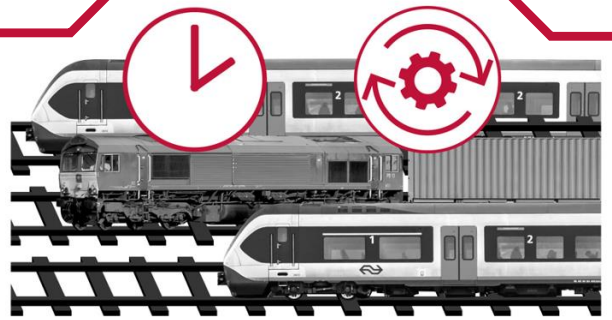
Maintaining
existing rail network

Construction
laying new track,
building new stations



Allocating
the space on the track

Informing
operators



Controlling
All traintraffic

Infrastructure

7,097 km
of track

11,559
signals

67
bridges

26
tunnels

399
stations

2,419
railroad
crossings

6,392
switches

3,075 km
network length

Source: Jaarverslag ProRail 2020

ProRail becoming a data-driven company!

Transforming data into information is important to improve our performance! We foresee a growth of **+30% more trains running on our network in 2030**. We have to invest in data- and information, maybe even more than concrete and iron…

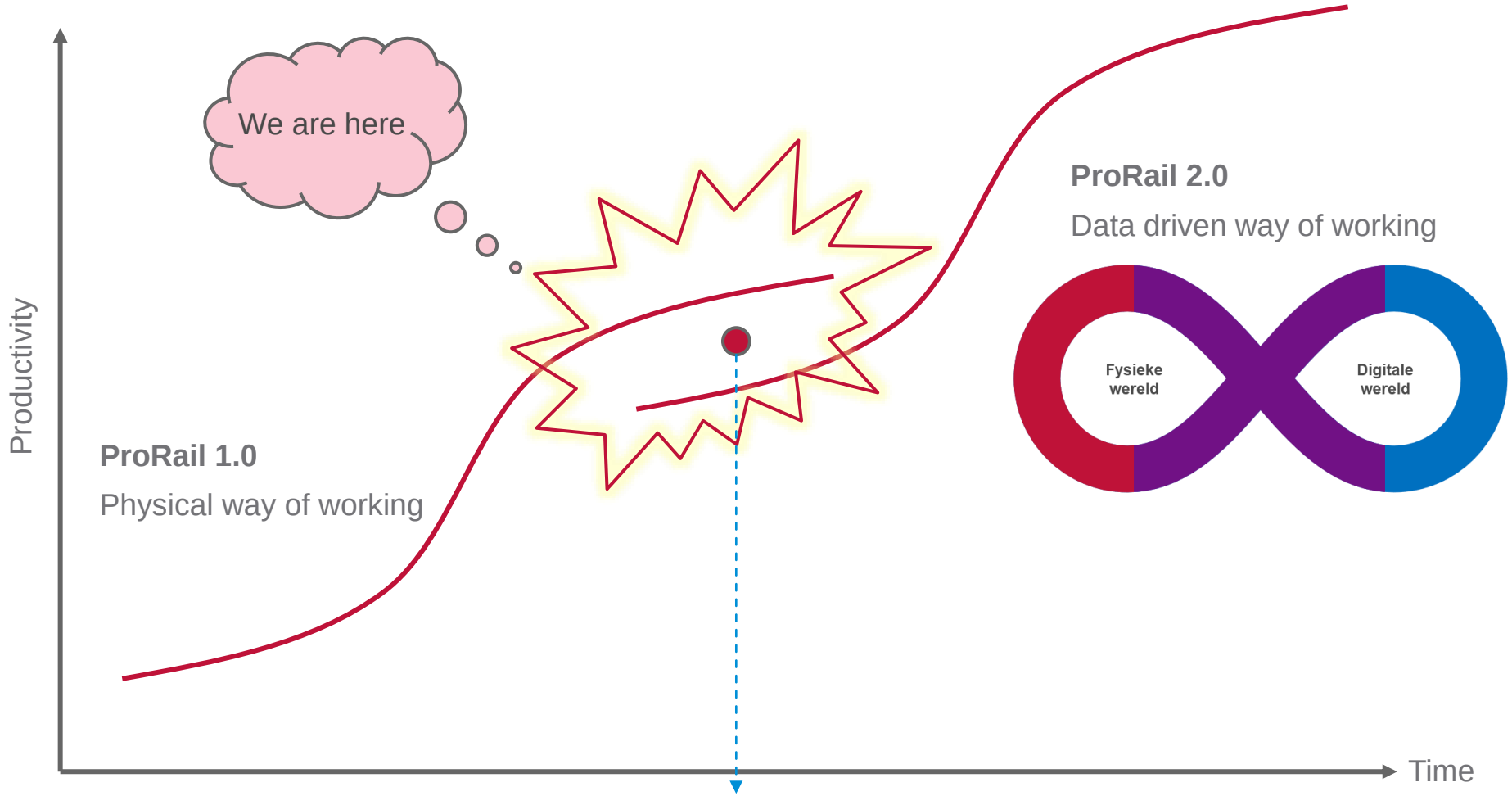
Becoming a data driven company is in 2 of our top 7 goals for the upcoming years.

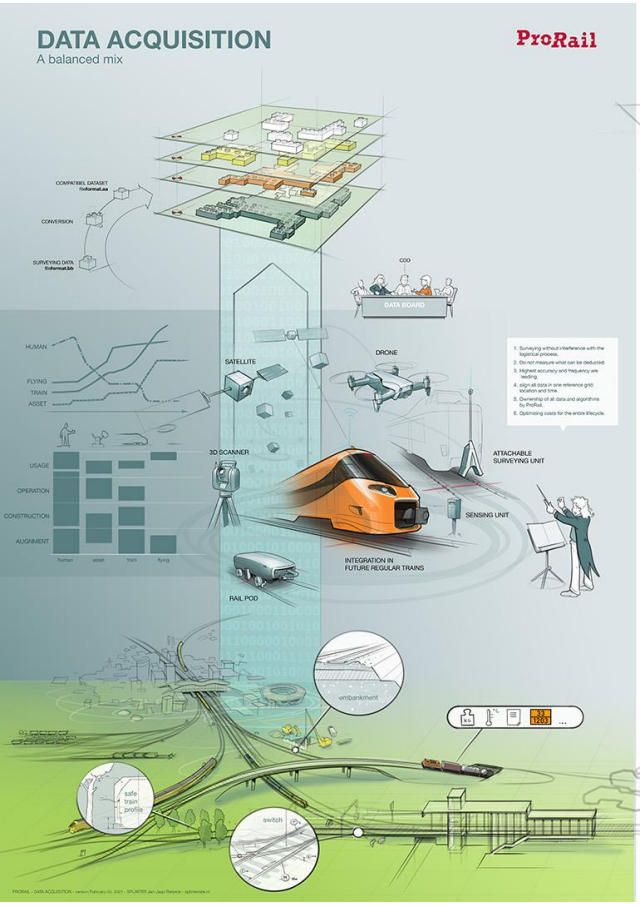
Algorithms and data from our rail-systems, specific sensors on trains and assets, or bought externally, help us to **create better insights**. Its is easy to **handle more data faster** and assist our workforce, helping them to take **better decisions**. For now, we focus on humans using the insights, and we are making small steps to create algorithms that can take decisions for them.

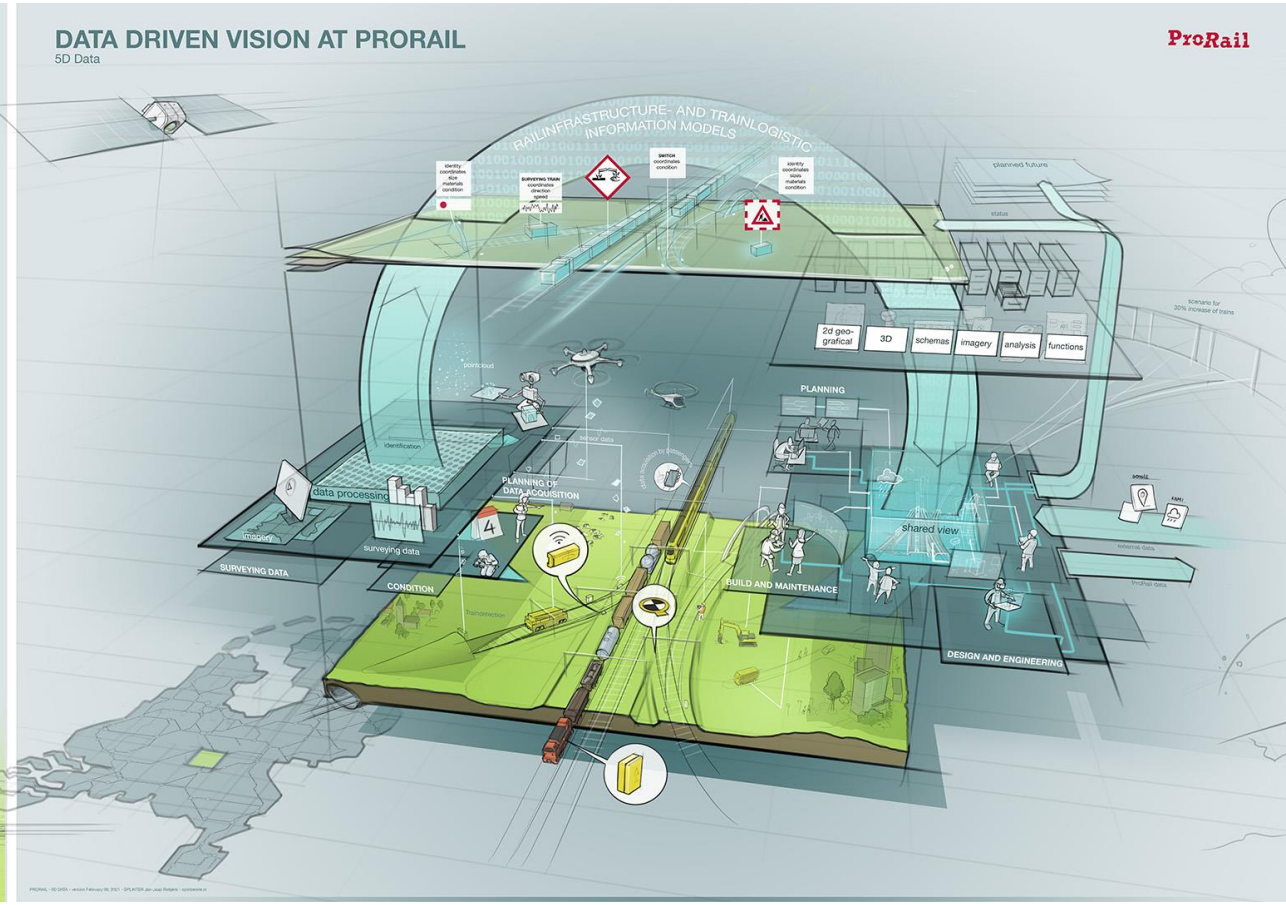
The cloud computing we have available is so powerful. The pace of new sensors and data is extreme. The biggest challenge is to **find the right personnel and partners** to manage this the right way. And **changing the way we traditionally work** into the new digital way of working in a 180 old industry.

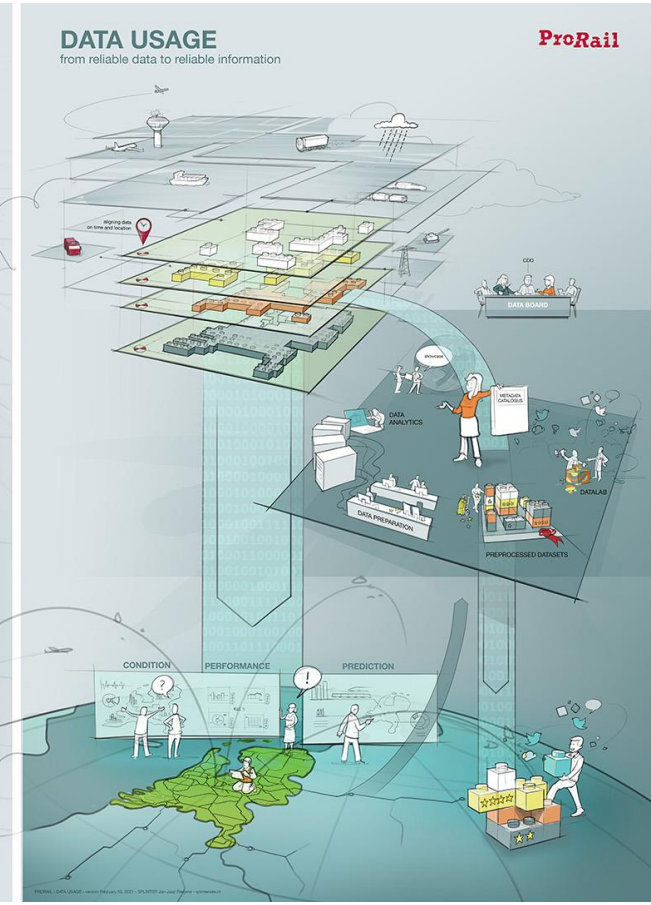
I will share two ProRail Asset Management examples (asset condition monitoring via image recognition, degradation data used to plan capital investments)

Towards a data-driven way of working @ProRail









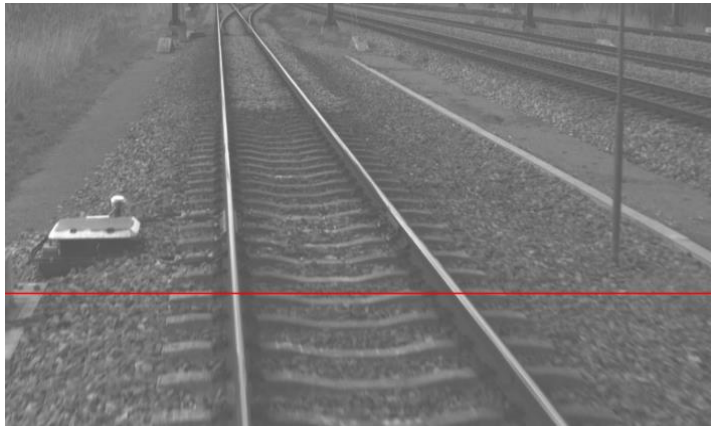
https://prorail.deeltbeeld.nl/5d/


ProRail

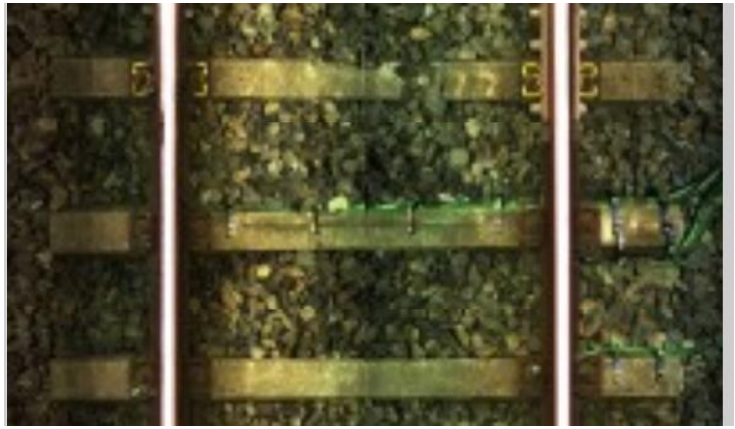
Video inspection train

Video data

camera 8

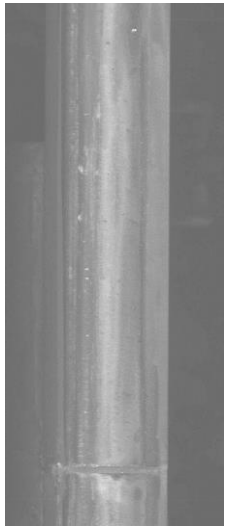


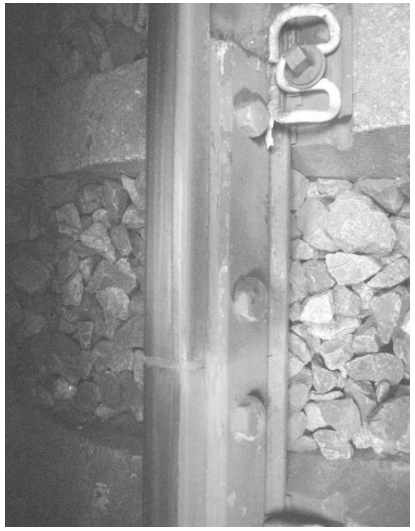
camera 0



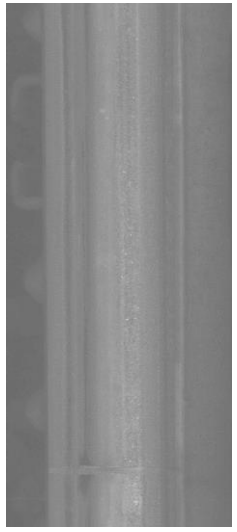
camera 1

camera 9





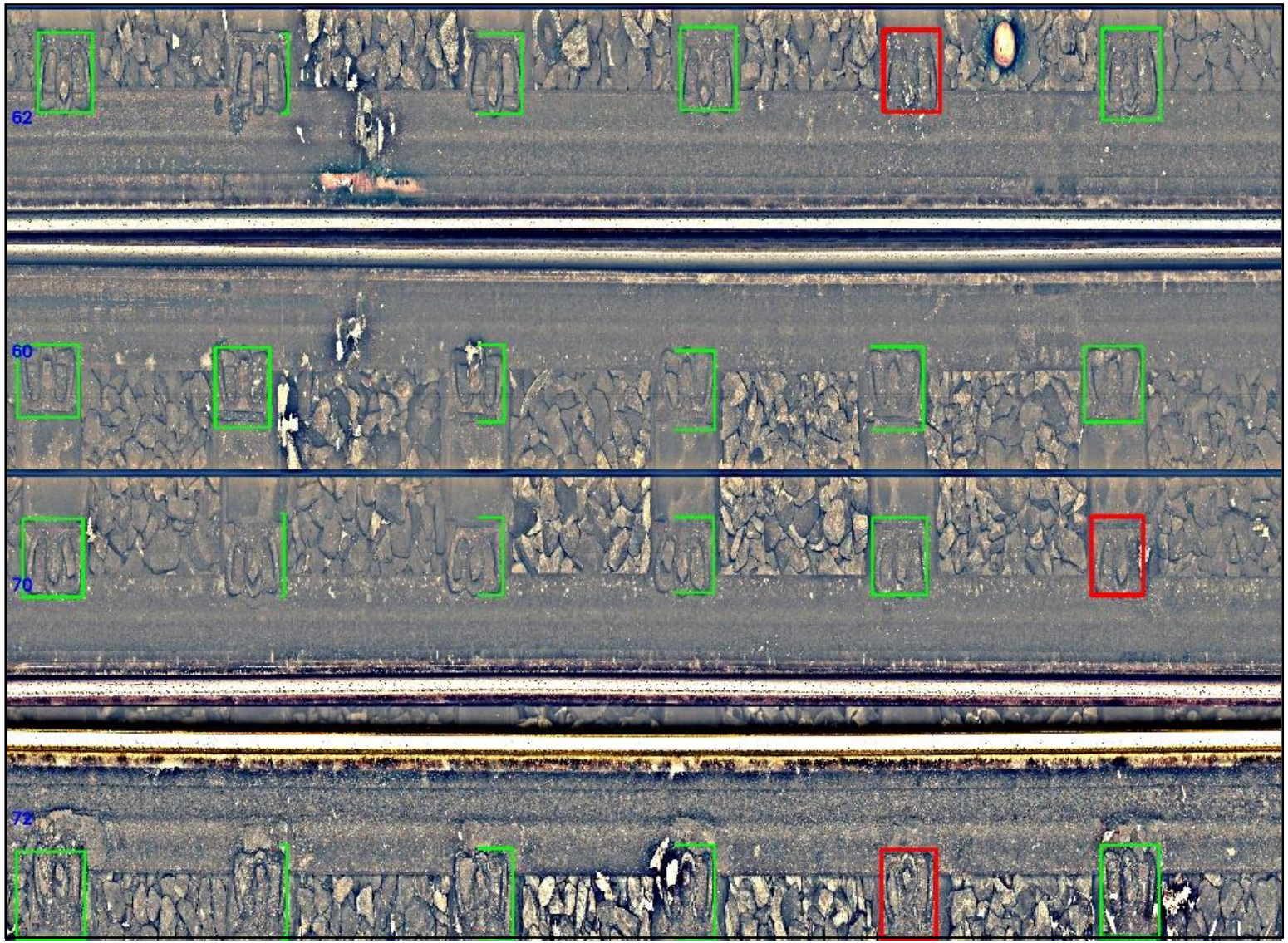
camera 4 camera 2 camera 5



camera 6 camera 3 camera 7

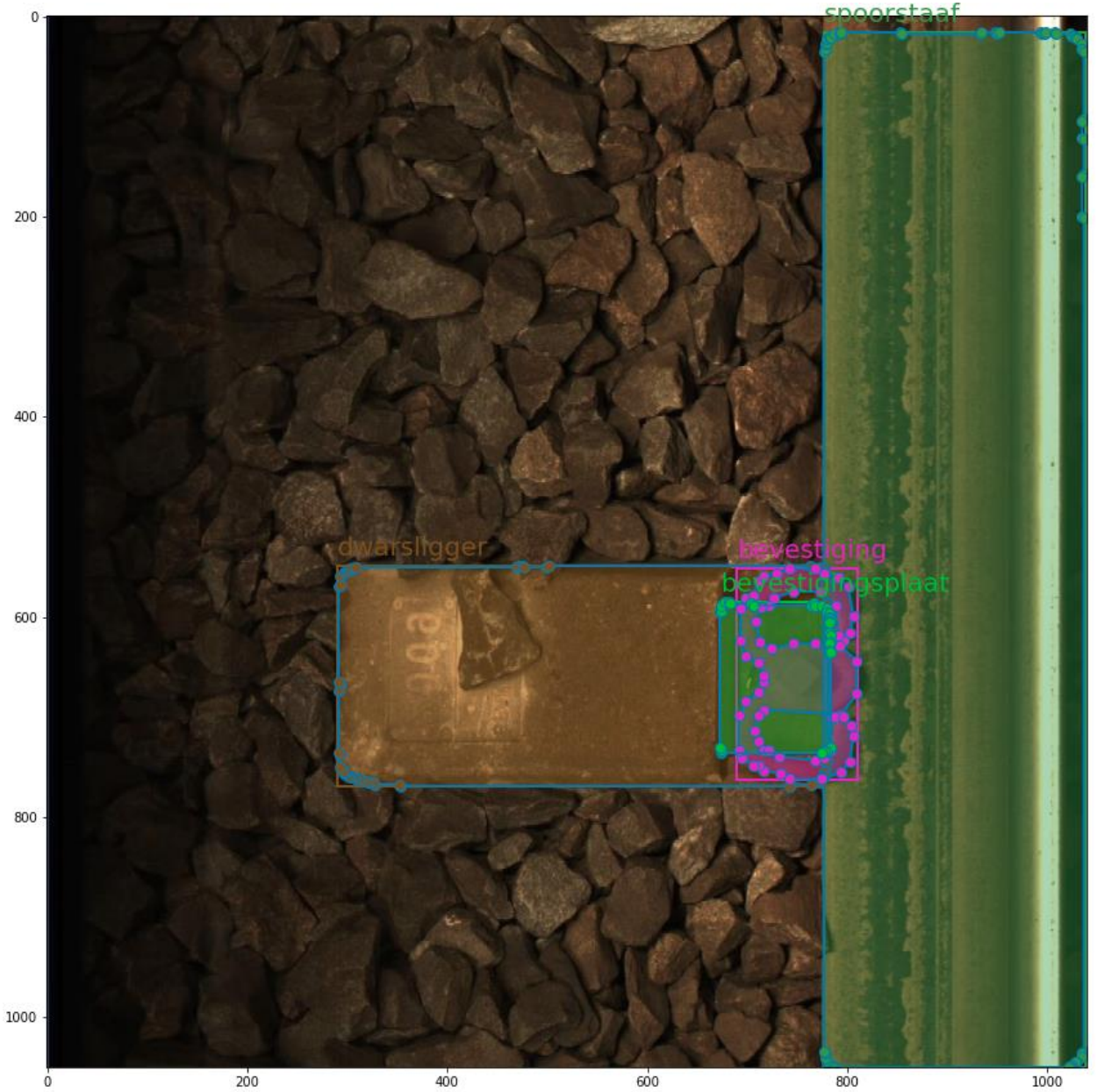

GEO-CODE: 117
MILEAGE: 6,239508
RD X: 139548,196
RD Y: 450651,831
TIME: 21-05-2019 13:42
CURRENT BOX
250.000.000
DEGRADATION: 25 %
CROSSING
RD X: 139525,796
RD Y: 450594,283
STATUS: BROKEN

Use case: sleeper clips

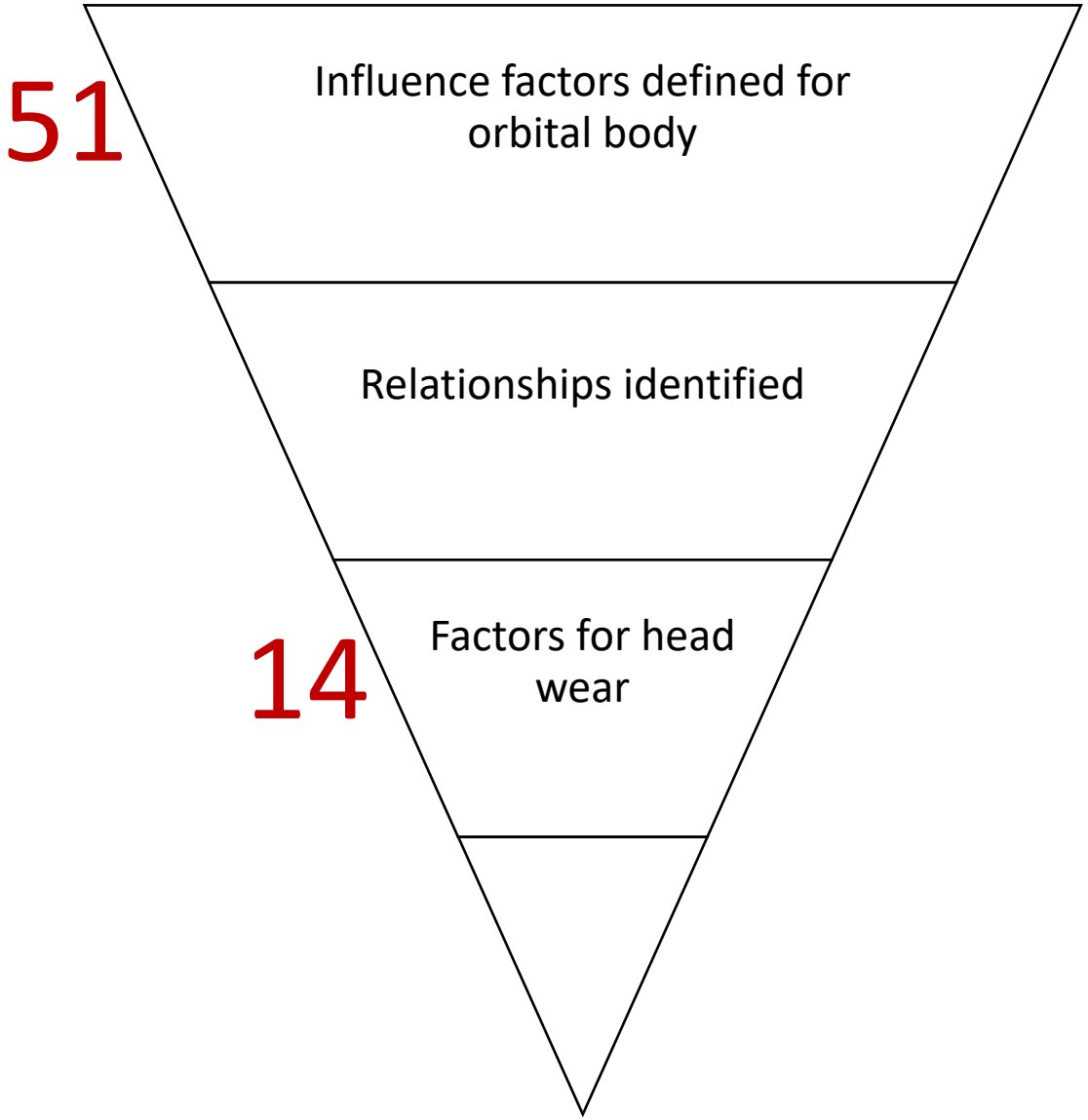


- Sleeper clip detection
- Determine the type
- Determine its state
- Look for hotspots

New approach: image segmentation

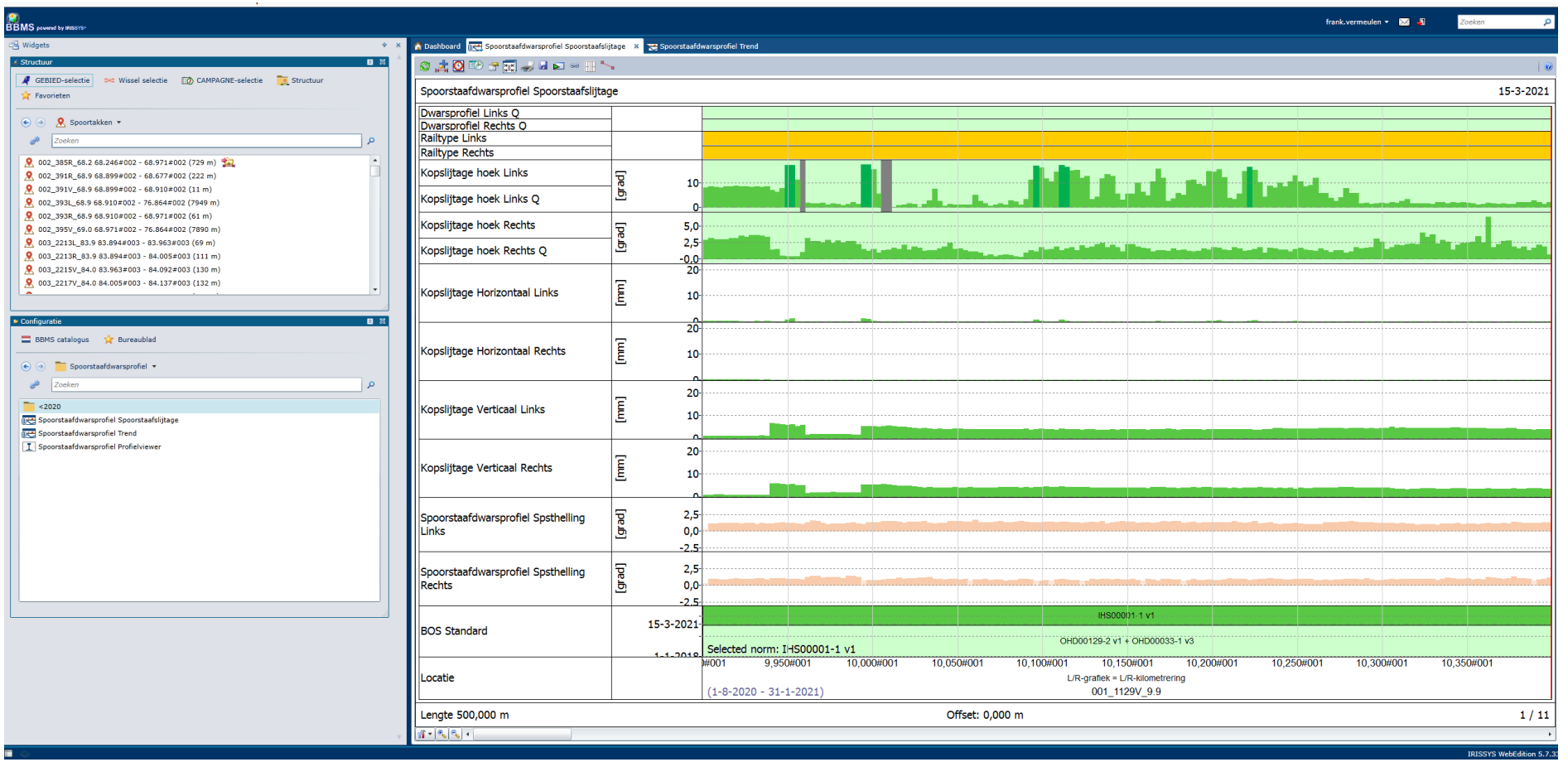


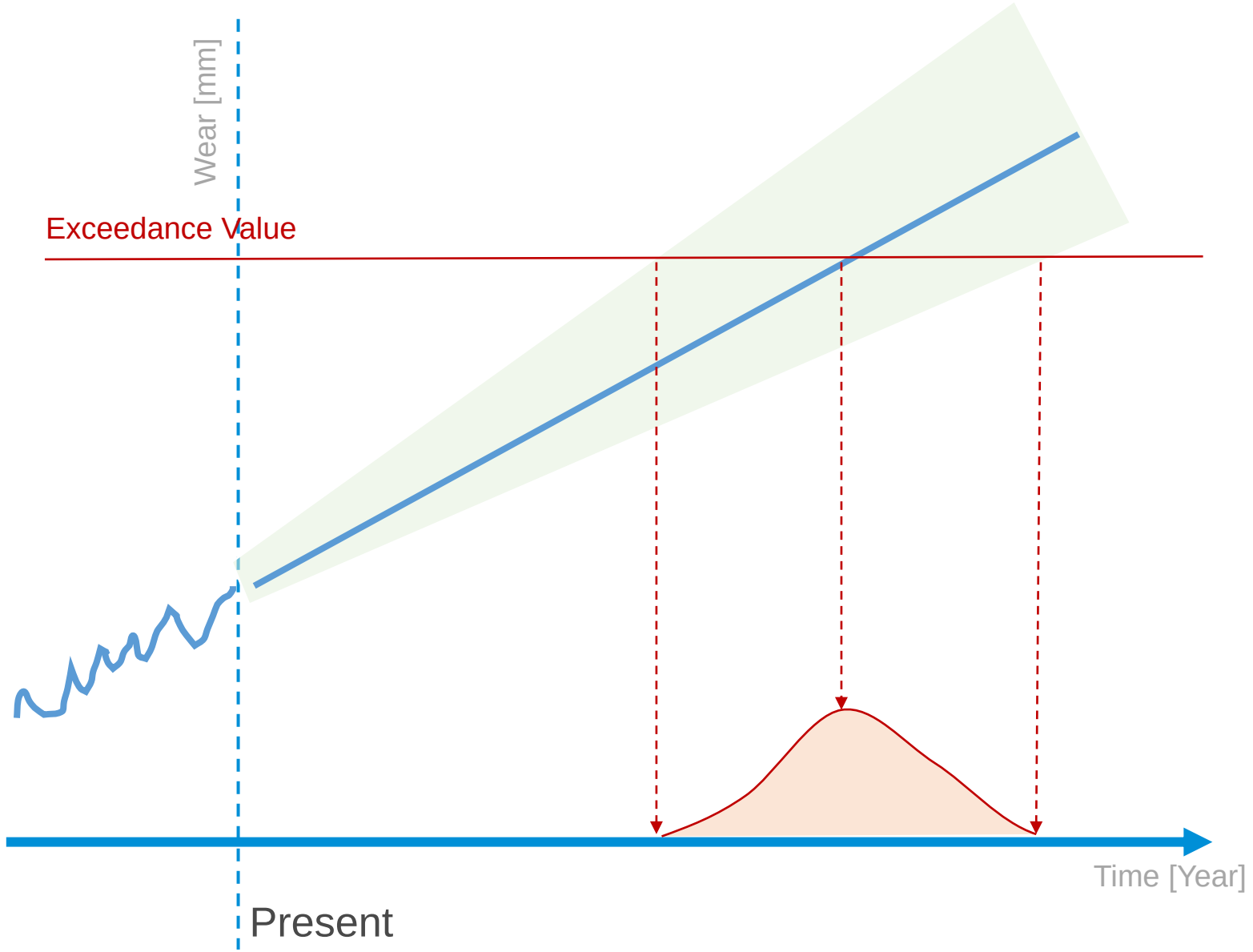
Influence factors on Head wear



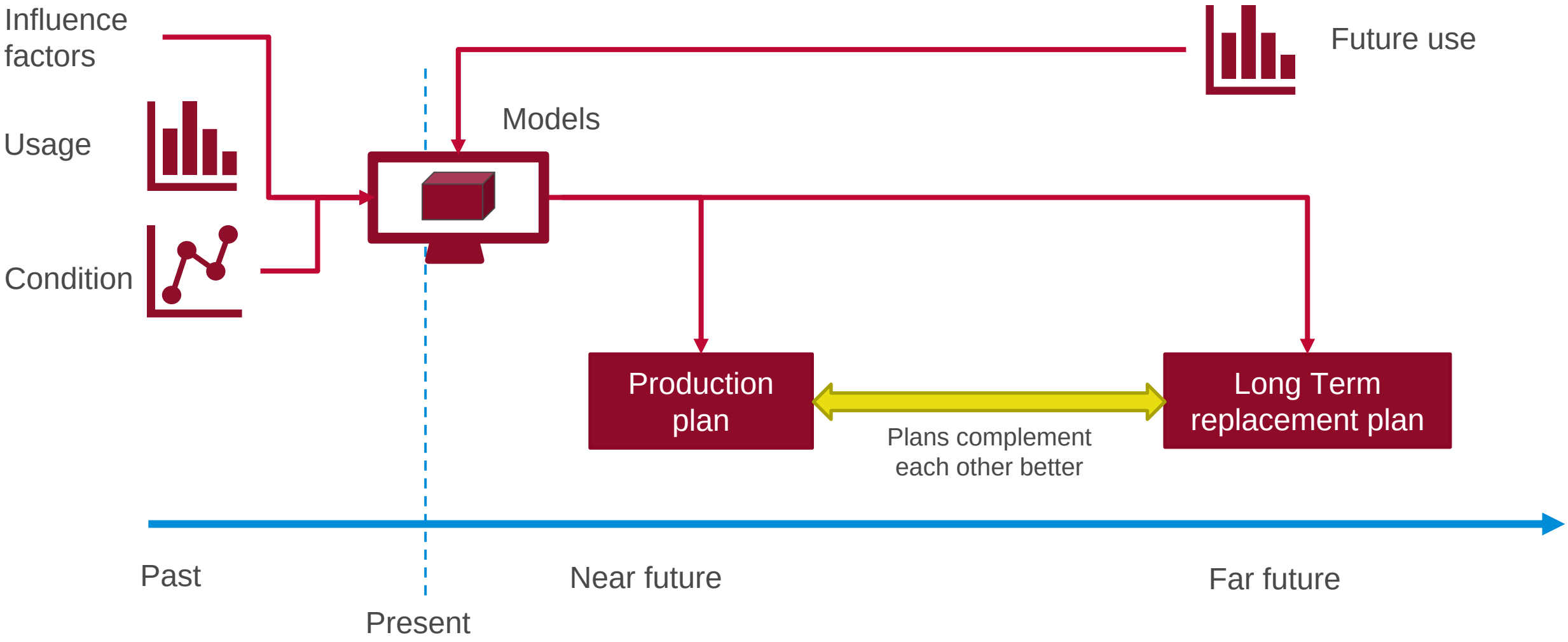
- Tonnage passsed trains
- Train type
- Gauge
- Acceleration/Traction
- Grinding and milling
- Rail type
- etc.

Measurement Data




Wear [mm]
Exceedance Value
Time [Year]
Present

Way of Working AssetDegeneration



Insights' summary & questions

Second-round Topic:
Consequences of integrating Privacy and Security aspects into data-driven solutions.

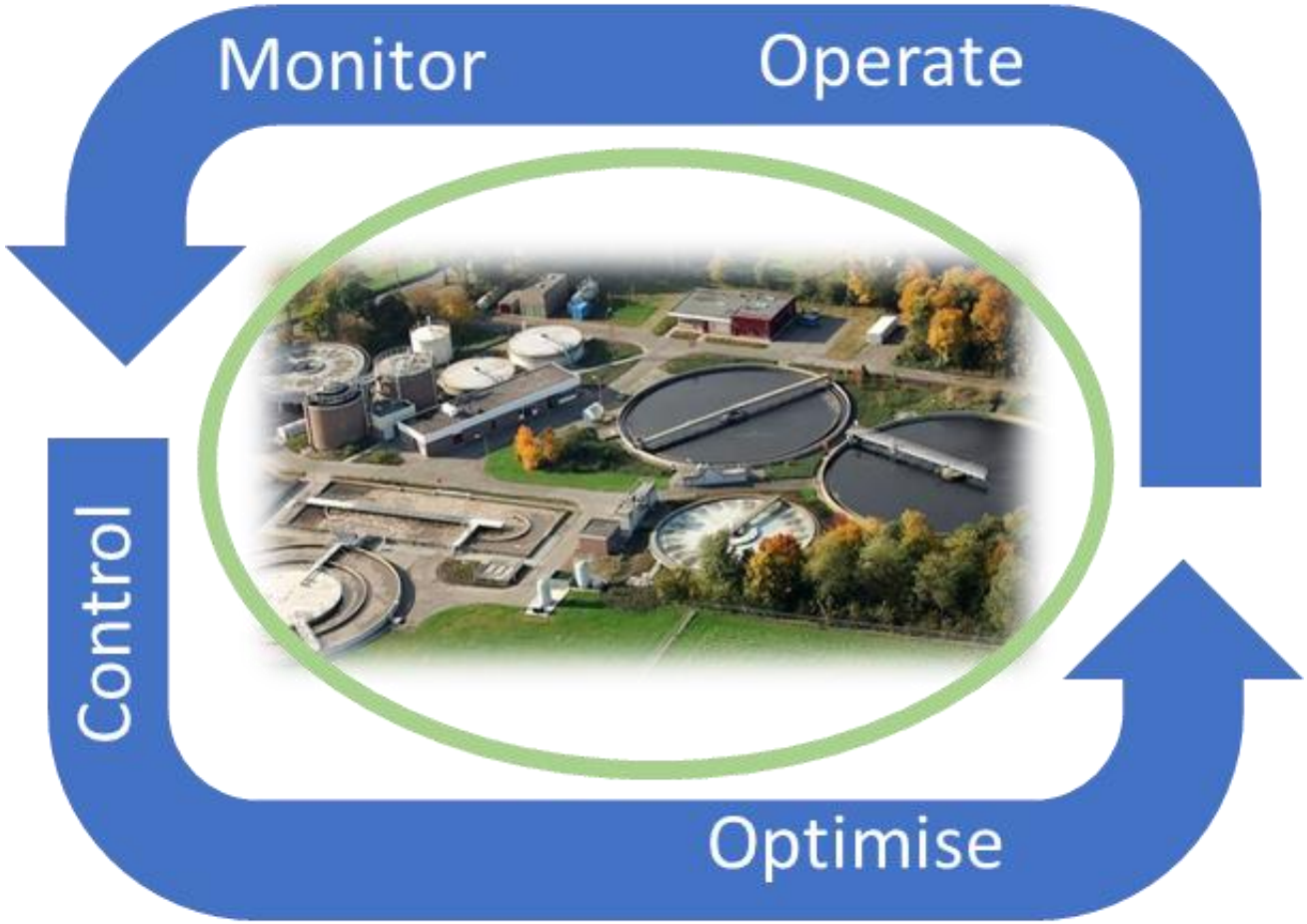
Consequences of integrating Privacy and Security aspects into data driven solutions

Sanitation, water purification and privacy

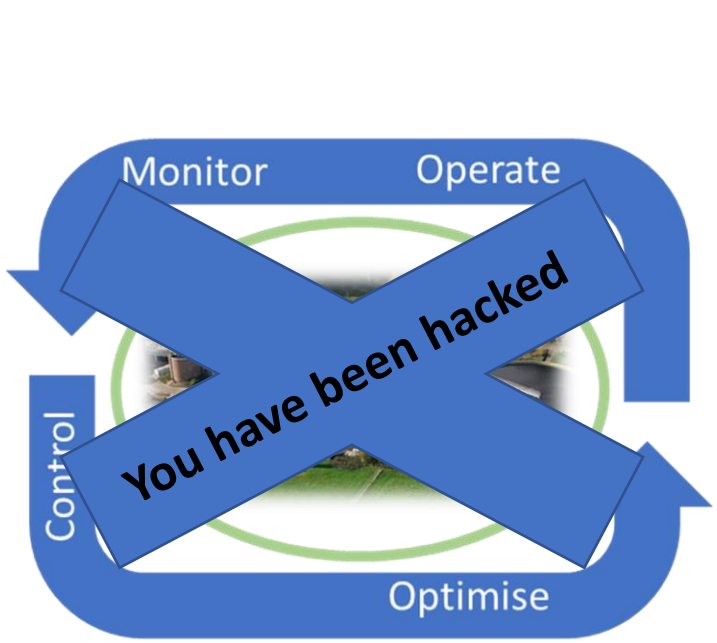
- **Raw materials factory**
- **Energy factory**

- **Source of information for the government e.g. Covid-19**

E-DNA to trace muskrats



Sanitation, water purification and cybersecurity



Transformative:
Autonomously taken actions/interventions

No operators with years of experience

Self-learning information cycle

Process automation

Consequences of integrating Privacy and Security aspects into data-driven solution

- Clinical data entails contingency plans to preserve privacy and data integrity.
- Such data can only be handled by the relevant stakeholders responsible for the patients' therapeutic care.
- Privacy and Security aspects in healthcare need to be balanced under regulated protocols.
- Unintended use of clinical data is of financial value to companies supplying treatments.
- Shift from supply driven to a service base in order to reduce handling of data between various sectors.

Second round topic: **Privacy** and Security

Most of our assetdata, and algorithims are not impacted by the General Data Protection Regulation (GDPR).

But some data we acquire on our assets (images form trains, station camera's, aerial photo's, microphones on trains, fibre optic acoustic sensing) could be used for identifying persons.

Our Datascientist don't always recognize the difficulty in that. We work om blurring images, but only after we aske questions on the topic. Its not in their mind and we **must help them to manage this topic much better** (*within the rules of the GDPR*).

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Tech

How hackers are targeting the shipping industry

By Chris Baraniuk
Technology reporter

18 August 2017

FIDRA CYBER SECURITY

Breaking into a shipping firm's computer systems could allow attackers to access all kinds of sensitive information

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U.S.

Biden Administration Issues Cybersecurity Directives for Freight and Passenger Rail

The orders seek to bolster security for critical transit systems considered at high risk for attack

New orders on cybersecurity enhancement will affect about 90% of passenger rail systems in the U.S.
PHOTO: CHIP SOMODEVILLA/GETTY IMAGES

By Dustin Volz and David Uberti
Updated Dec. 2, 2021 4:42 pm ET

PRINT TEXT

Listen to article (5 minutes)

WASHINGTON—Nearly all U.S. freight and passenger rail systems will be required to report certain cybersecurity incidents to the Department of Homeland Security within 24 hours of discovery under new directives published Thursday by the Biden administration.

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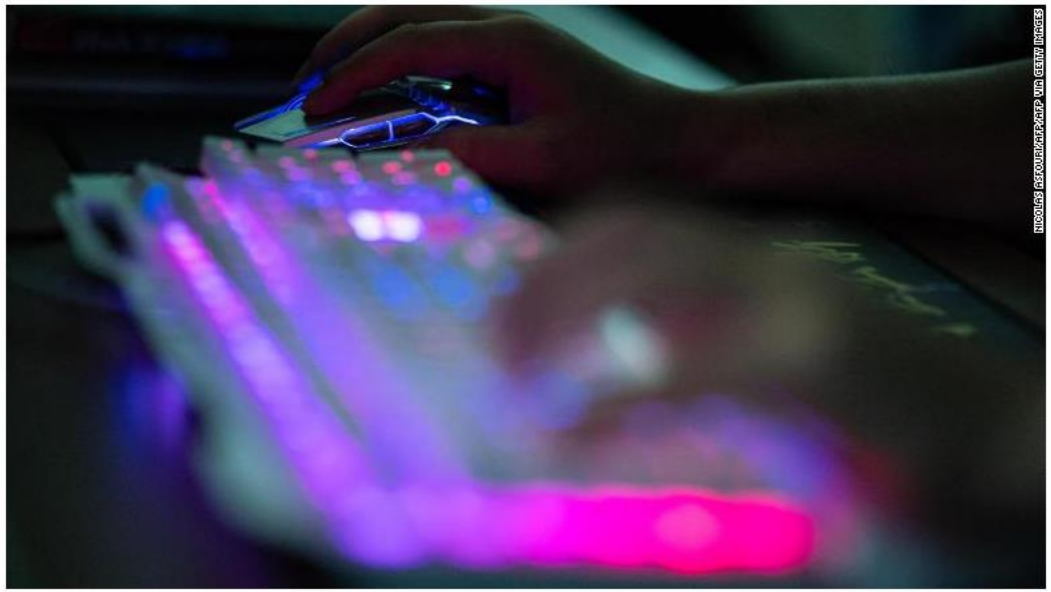
Security

CNN politics The Biden Presidency Facts First US Elections Edition

US warns hundreds of millions of devices at risk from newly revealed software vulnerability

By Sean Lyngaas, CNN
Updated 2245 GMT (0645 HKT) December 13, 2021



Washington (CNN) — Hundreds of millions of devices around the world could be exposed to a

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Hackers tried massively to exploit leak in Log4j registration tool – BBC

by BBC 724 — December 13, 2021 in Business 0

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Hackers tried massively to exploit leak in Log4j registration tool – BBC

Hello, Welcome to the BBC News site! I will present you all the details of Hackers tried to take advantage of a vulnerability in Log4j registration tool – BBC here.

Hackers tried to take advantage of it en masse of

ProRail

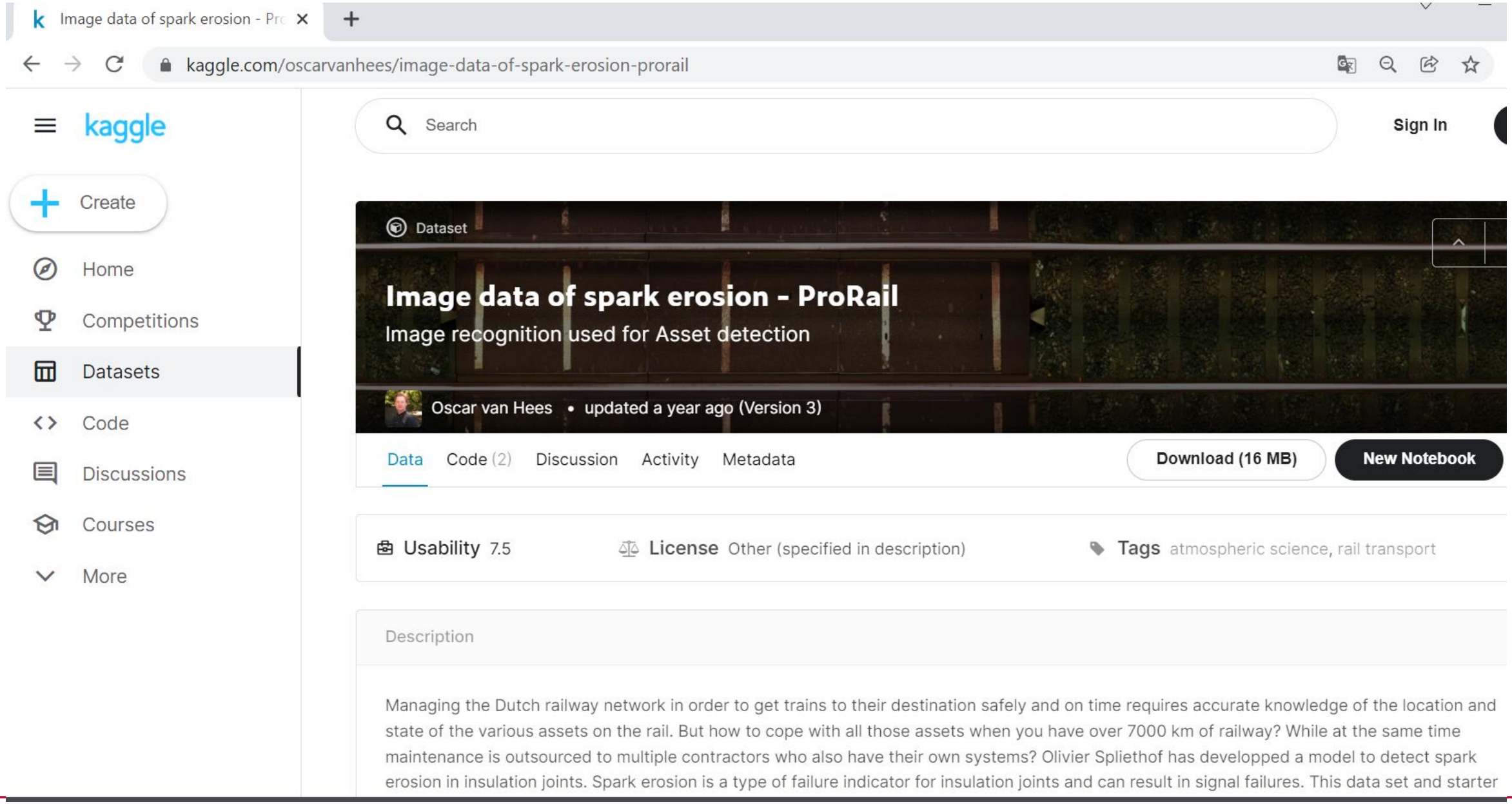
Second round topic: Privacy and **Security**

Important topic in the rail-industry. Our systems and our infrastructure is vulnerable for external and internal threads.

We work on different levels on securing our data, algorithms , systems and infrastructure.

But… there is still a lot to do! We have to learn our workforce to understand the importance of security and act accordingly. There are still parts in our network and way of working that can be improved.

And there is a tight balance: sharing data (open up with world and with our partners!) and the security of our infrastructure, systems., data, etc.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Oscar van Hees • updated a year ago (Version 3)
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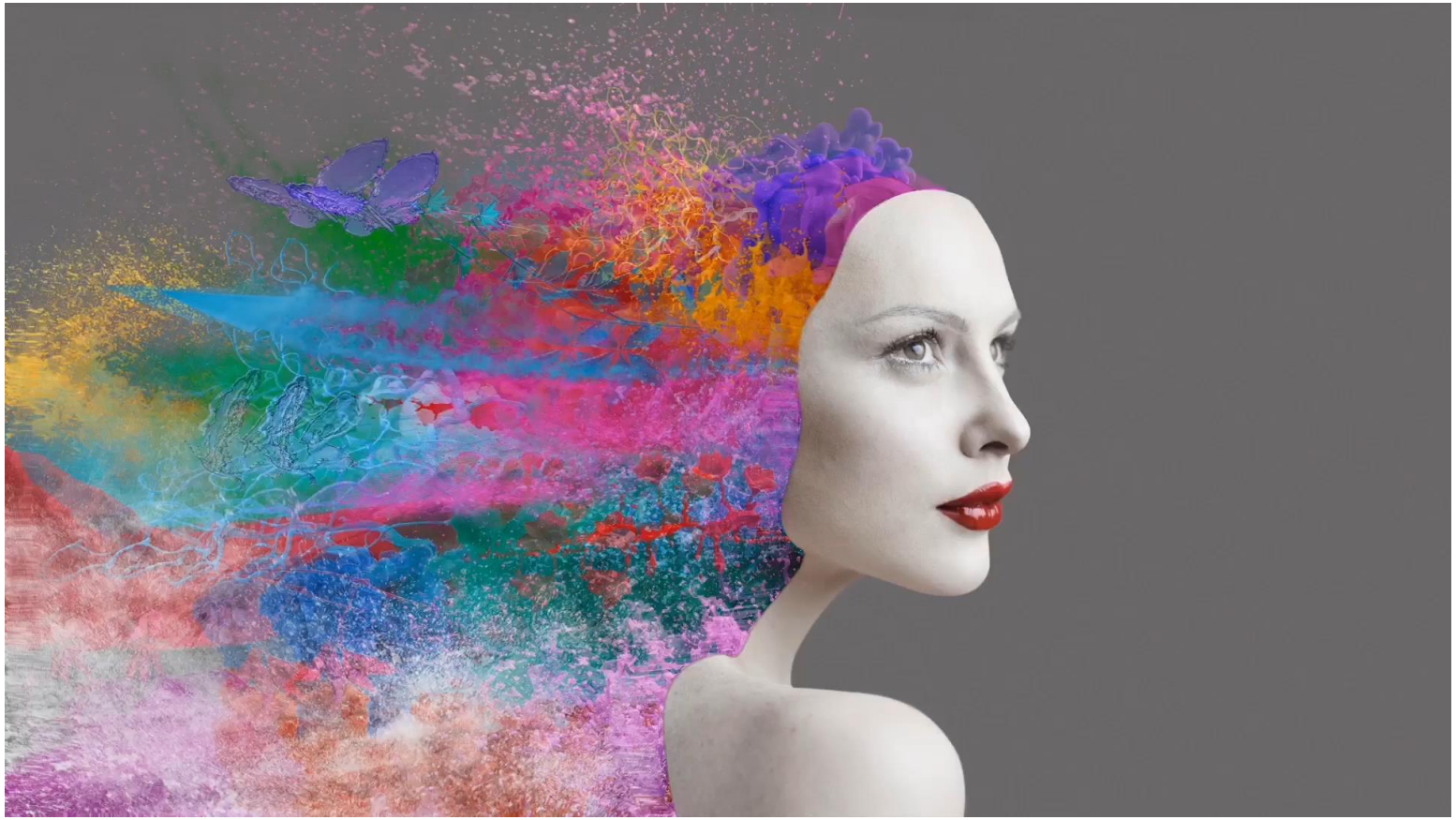
Usability 7.5
License Other (specified in description)
Tags atmospheric science, rail transport
Description
Managing the Dutch railway network in order to get trains to their destination safely and on time requires accurate knowledge of the location and state of the various assets on the rail. But how to cope with all those assets when you have over 7000 km of railway? While at the same time maintenance is outsourced to multiple contractors who also have their own systems? Olivier Spliethof has developped a model to detect spark erosion in insulation joints. Spark erosion is a type of failure indicator for insulation joints and can result in signal failures. This data set and starter

Insights' summary & questions



Third-round Topic:
Data-driven solutions and the transparency of algorithms and software

- Consequences for the procurement process and contract monitoring.

Data driven solutions and the transparancy of algorithms and software

Algorithms

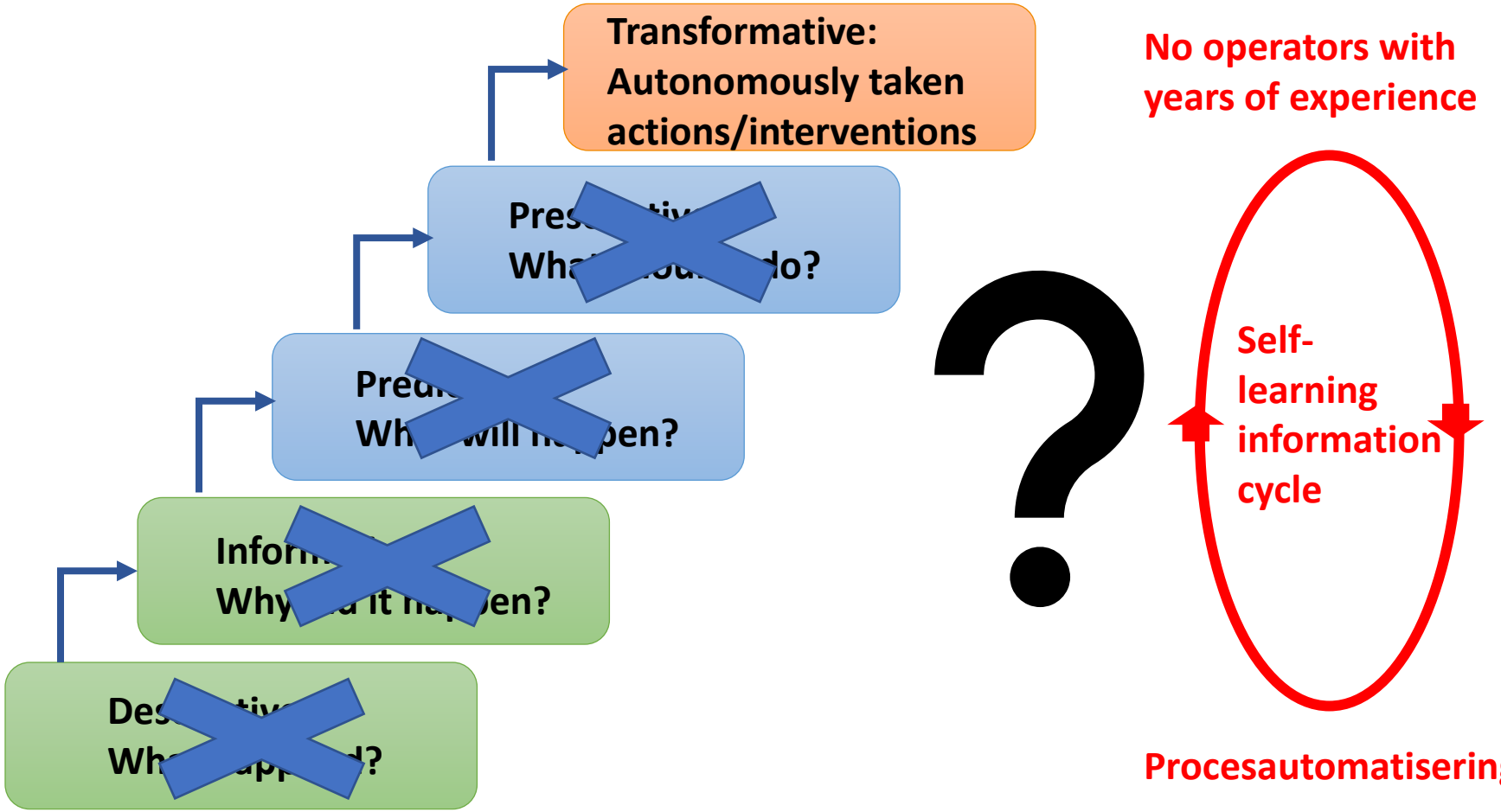
Many examples of failing algorithms:

- Dutch Tax authorities: allowances affair
- Discriminatory application software
- Facebook: Addictive software
- Sensor to measure water level

- When do we trust to use a self-driving car?

"Why have we been wrongfully accused?"

Digitalisation Maturity Levels




De kracht van samen

Data-driven solutions and the transparency of algorithms and software

- Clinical value driven by accurate data
- Forward planning for procurement processes
- Compatibility between various clinical modalities
- Clinical Data integration
- Clinical assistance for drug interaction and surgical assistance.
- Artificial intelligence.

Third round topic:
Data-driven solutions and the transparency of algorithms and software:
Consequences for the procurement process and contract monitoring

- **Before the procurement**, a step-by-step approach (such as the EAFIP methodology) starts at the needs identification. **This needs assessment** is crucial to understand the functional requirements/outputs of agorithms and software to be procured.
- **For the procurement**, based on the needs assessment and scoping, state-of-the-art analysis, market consultation results and business case, **the functional requirements are set upfront in the tender documents**.
- **During the procurement**, the bids are evaluated upon criteria established in the tender documents, that should embed as part of the functional requirements the importance of transparency of software (including the explainability of algorithms – how they work, what is the path to the results/outcome of an algorithm).
- **During contract**, clear KPIs, milestones and concrete output will guide the monitoring of the contract.

Insights' summary & questions

Wrap up & Closure

Takeaways

Takeaways

- Data is the **new gold of our times and is crucial for the future** in the different sectors. Therefore, it is important to **understand what and why we want to use data.** And how Innovation Procurement can be used to develop and purchase data-driven solutions.
- The **EAFIP step-by-step methdology applies to the procurement of data-driven solutions.**
- Data-driven solutions can support **decision making in relation with the public tasks based on the quality of data.**
- It is key to understand the **purpose of the use of data** and the applicable regulatory framework.
- When dealing with algorithms, machine learning and AI, specific requirements must be part of the **functional/technical specifications**. This is the case of **privacy and security by design and the transparency** of algorithms to understand the input and output.

Takeaways

- The **compliance, selection and award criteria** should translate the need for sound data-driven solutions.
- Innovation Procurement can be a useful instrument to develop and purchase data-driven solutions aiming for **technological autonomy** in the EU.
- **Risk assessments** may be needed particularly when there are personal data involved **(GDPR requirements).**
- Relevance of an **Intellectual Property Rights** strategy in line with the public task and the potential of commercialization of solutions.
- Importance of **standards for interoperability** when designing solutions.

AI Regulation Proposal: Risk-based approach

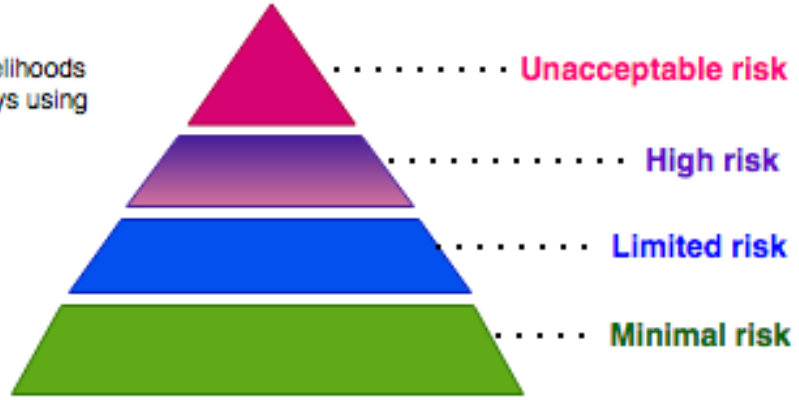
Unacceptable risk: All AI systems considered a clear threat to the safety, livelihoods and rights of people will be banned, from social scoring by governments to toys using voice assistance that encourages dangerous behaviour.

Limited risk, i.e. AI systems with specific transparency obligations: When using AI systems such as chatbots, users should be aware that they are interacting with a machine so they can take an informed decision to continue or step back.

Minimal risk: The proposal allows the free use of applications such as AI-enabled video games or spam filters. The vast majority of AI systems currently used in the EU fall into this category, where they represent minimal or no risk.

High-risk AI systems will be subject to strict obligations before they can be put on the market:

- Adequate risk assessment and mitigation systems;
- High quality of the datasets feeding the system to minimise risks and discriminatory outcomes;
- Logging of activity to ensure traceability of results
- Detailed documentation providing all information necessary on the system and its purpose for authorities to assess its compliance;
- Clear and adequate information to the user;
- Appropriate human oversight measures to minimise risk;
- High level of robustness, security and accuracy.

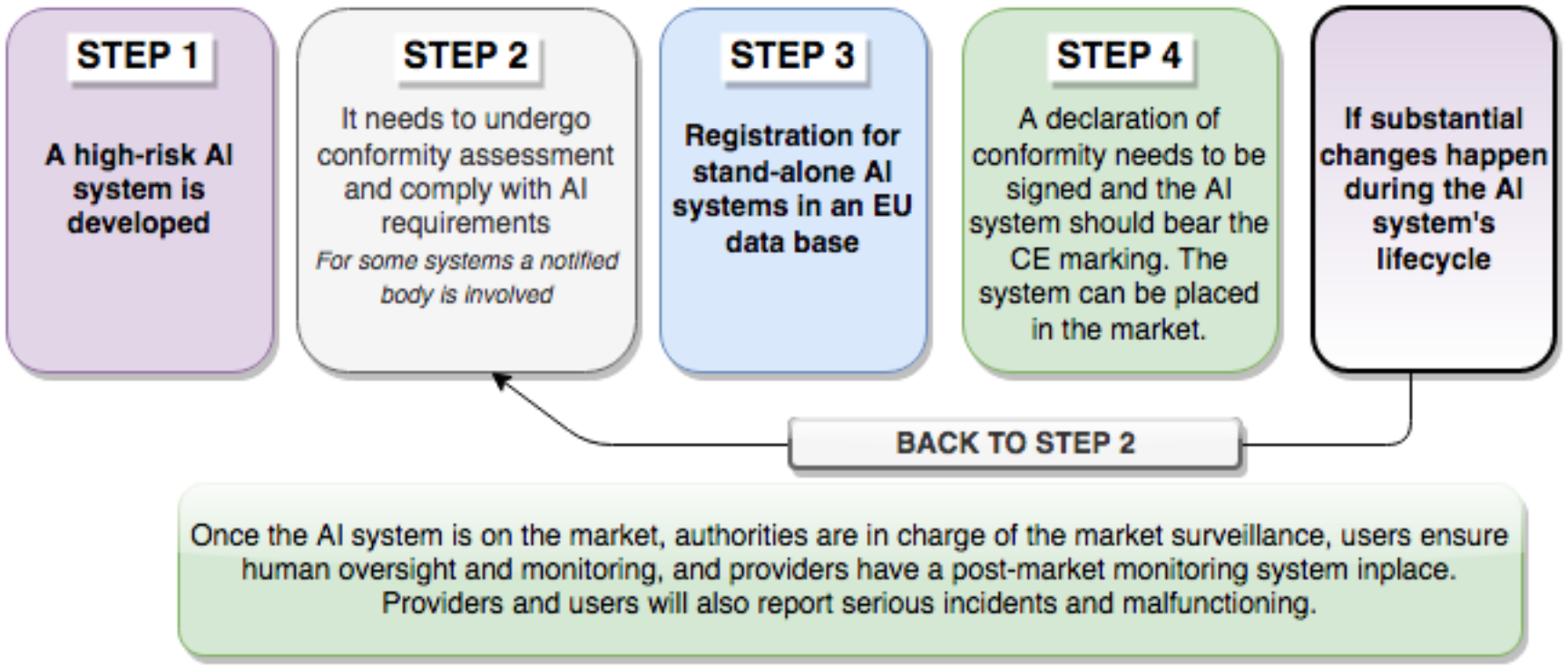


High-risk: AI systems identified as high-risk include AI technology used in:

- Critical infrastructures (e.g. transport), that could put the life and health of citizens at risk;
- Educational or vocational training, that may determine the access to education and professional course of someone's life (e.g. scoring of exams);
- Safety components of products (e.g. AI application in robot-assisted surgery);
- Employment, workers management and access to self-employment (e.g. CV-sorting software for recruitment procedures);
- Essential private and public services (e.g. credit scoring denying citizens opportunity to obtain a loan);
- Law enforcement that may interfere with people's fundamental rights (e.g. evaluation of the reliability of evidence);
- Migration, asylum and border control management (e.g. verification of authenticity of travel documents);
- Administration of justice and democratic processes (e.g. applying the law to a concrete set of facts).

Commission (Regulatory framework proposal on Artificial Intelligence) https://digital-strategy.ec.europa.eu/en/policies/regulatory-framework-ai

Compliance steps based on the Regulatory framework proposal on Artificial Intelligence



Future events

Topic	Date
Innovation Procurement: Cybersecurity & Dual use	13-01-2022
Lessons learned from successful innovation procurement projects	15-02-2022

More information on: www.eafip.eu/events/webinars/upcoming-webinars/

European Assistance For Innovation Procurement
eafip

https://ec.europa.eu/eusurvey/runner/EAFIP2021

EAFIP call to apply for free assistance

opens every 3 months

Call	Launch date	Deadline
1st Call	25th March 2021	25th June 2021
2nd Call	25th June 2021	25th September 2021
3rd Call	**27th September 2021**	**11th January 2022**
4th Call	12th January 2022	15th April 2022

Thank you for your attention

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WEBINAR Round Table #2

The Management Perspective on Innovation Procurement of Data-Driven Solutions

Q&A

Panelists:

- Stephan Corvers – CEO Corvers Commercial & Legal Affairs, The Netherlands
- Gerard Smits - CEO Waterschapshuis, The Netherlands
- Karl Farrugia - Managing Director - Central Procurement and Supplies Unit (CPSU), Malta
- Thymo van den Brug - Manager Information Innovation ProRail, The Netherlands

FIRST ROUND TOPIC: Added Value of Data-Driven Solutions

1. How do you verify the quality of data?

(See video from minute 00:34:17 on)

Data quality is crucial to come to right decisions. This is one major challenge as the quality of data has a direct effect on the quality of decision-making.

There are different ways of doing this, for example, to compare data, review the accuracy and compatibility. Contracts can determine conditions and requirements for contractors to verify data.

It also depends on what you want/need to use the data. For example, in investment planning you may not need 100% accurate data but 80% of accuracy.

2. How do you foresee that data driven solutions will help you to make decisions?

The solutions can support decision making in a more cost-efficient and accurate manner based on data. In this way (human) resources can be focused on other relevant tasks.

3. How did you decide that data driven solutions were necessary?

To take the decision, it is important to have a proper business case that assess cost, benefits and risks.

4. Have you identified risks in implementing these data-driven solutions?

There are always risks involved, for example concerning the quality of data. The assessment of risks in a specific sector and situation is an important activity in order to define risk mitigation measures.

It is important to involve different users/stakeholders in the process to decide to “go” for a data driven solution.

SECOND ROUND TOPIC: Consequences of Integrating Privacy and Security Aspects into Data-Driven Solutions.

1. Question to GERARD: How do you protect the data that can identify a householding information based on the water residues coming from their pipe system?

(See video from minute 01:05:00 on)

The way is not to collect this sort of information or destroy it.

2. Question for KARL: How do you ensure that all the data that you gather from patients is properly secured?

(See video from minute 01:09:00)

It is important that the information is in the right hands for the right purposes. We have secure infrastructure, measures and protocols in place. One measure is to avoid hard copies/printed data.

3. How to reach a balance of sharing data and keeping it safe?

It is important to follow the European guidance. See in that regard:

Open Data Directive (DIRECTIVE (EU) 2019/ 1024 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL - of 20 June 2019 - on open data and the re-use of public sector information (europa.eu)

Regulation on the flow of non-personal data REGULATION (EU) 2018/ 1807 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL - of 14 November 2018 - on a framework for the free flow of non-personal data in the European Union (europa.eu)

4. Do you have any particular provisions/clauses in tendering documents and/or best practices in procurement procedures when you are buying a new data-driven solution?

See, for example, the guidance of European Commission on the Standard Clauses: Standard Contractual Clauses (SCC) | European Commission (europa.eu)

Contractual conditions on privacy by design are also relevant.

THIRD ROUND TOPIC:

Data-driven Solutions and the Transparency of Algorithms and Software

1. How to use algorithms and avoid bias?

(See video minute 01:13:38 on)

One way is to use algorithms for augmented reality but not for Artificial Intelligence.

2. Is it important to have a team with knowledge on AI and algorithms?

(See video minute 01:18:50 on)

In order to have a sound solution, you need to describe the functionalities and understand what is being offered by suppliers. To accomplish this, you need people with the knowledge to do it. Furthermore, it is important to understand how algorithms are developed and being able to explain it.

If there is a failure of the systems, there is always a need to have a response. Therefore, it is also crucial to work together, that is to cooperate with the market in order to address the specific needs. However, a main condition for this cooperation is a level playing field. In this regard, it should be identified whether there are knowledge asymmetries to prevent/tackle them.

3. How can we prevent errors resulting from algorithms from a procurement (of algorithms) perspective?

Applying the EAFIP-methodology for a step-by-step approach in order to assess your needs and the specific purpose of the use of data based upon your public task. Then, it should be determined why and what data is needed and the functionalities required. This should be translated into the tender documents in relation to compliance, selection, and award criteria.

For more information, see: www.eafip.eu/toolkit