Smart Prison

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Development of ICT-services in prisons 2017-2018

Digital rights: Imprisonment & Remand Imprisonment Act 2015

❑Prisoners may be given permission to send and **receive e-mail messages** and **use the internet** for an important reason related to the maintenance of outside contacts, subsistence, or attendance to work-related, educational, judicial, social or housing matters or for another corresponding important reason

❑Prisoners may be given permission to communicate with their **close relatives or other close persons via video connection** or other suitable technical means of communication where the participants have an audio and visual connection with each other. In order to maintain outside contacts or for another important reason, prisoners may be allowed to communicate **with some other important person** in this manner.

Prisoner workstation and network environment 2017 - 2018

- ❑ Developed in co-operation with Government ICT Center Valtori
- ❑ Data security audited by F-Secure
- ❑ 200 laptops in use
  - ➢ 2-20 joint use workstations in every unit
  - ➢ Lenovo laptops (hardened)
  - ➢ Mobile network (4G modems + sim cards)
- ❑ Permission to use must be applied from prison director

Services in joint use workstations

- ❑ Skype –meetings
- ❑ Restricted Internet
  - ❑ Closed prisons: 800 whitelisted websites
  - ❑ Open prisons: blacklisting
- ❑ All new website requests are controlled by the security department
- ❑ Moodle for high-school education
- ❑ Open Office tools
- ❑ Separate laptops for high-school examination

Challenges

- Authentication and controlling
  - Skype-meetings' supervision
  - Services that require strong electronic authentication or e-mail authentication
- E-mail access lacks in closed prisons' workstations
  - Imprisonment act's requirement is not met
- Whitelist
  - No possibility for searching / browsing
- Digital skills?
- ➤**Conclusion:** personal device & smart system is needed!

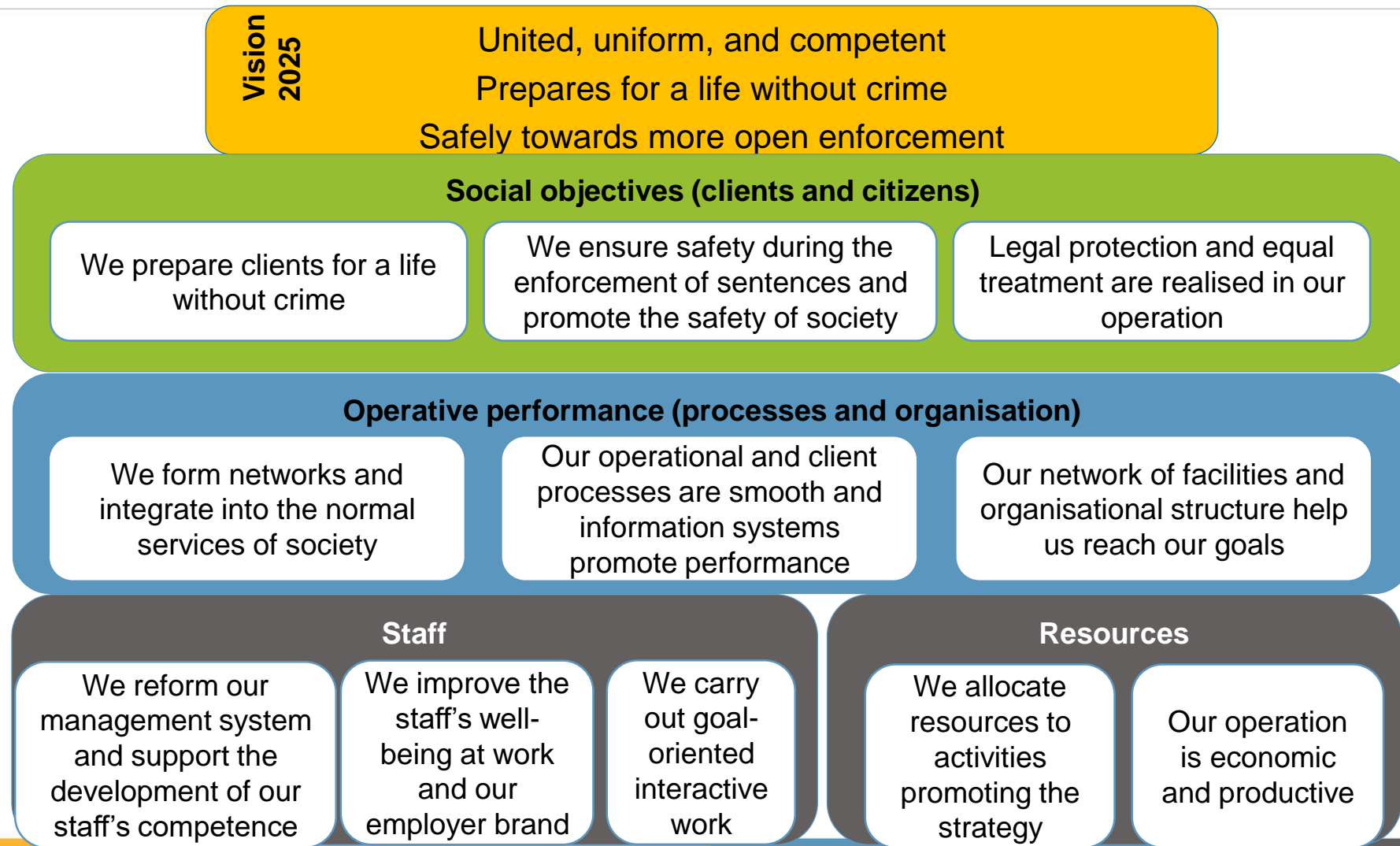## Prison - always 10-20 years behind the (digital) development of society?

Smart Prison project 2018 -

Strategy – digital strategy

Strategy map of the Criminal Sanctions Agency for 2020-2023

Vision 2025

United, uniform, and competent
Prepares for a life without crime
Safely towards more open enforcement

Social objectives (clients and citizens)

We prepare clients for a life without crime

We ensure safety during the enforcement of sentences and promote the safety of society

Legal protection and equal treatment are realised in our operation

Operative performance (processes and organisation)

We form networks and integrate into the normal services of society

Our operational and client processes are smooth and information systems promote performance

Our network of facilities and organisational structure help us reach our goals

Staff

We reform our management system and support the development of our staff's competence

We improve the staff's well-being at work and our employer brand

We carry out goal-oriented interactive work

Resources

We allocate resources to activities promoting the strategy

Our operation is economic and productive

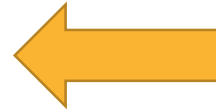# Digital services support strategical targets

□Reduce recidivism

- ➢**More** services with personal and easy access
- ➢**Less** paper work: more time for face-to-face contact
- ➢**Continuum** to digital society

□Reintegrate into society

- ➢**Principle of normality**: availability of public services
- ➢**Prevent** marginalisation: digital skills are needed in modern society
- ➢**Modern** job market requirements

Main strategical vision: Preparing for a life without crime!

Targets of the project

❑ **Hämeenlinna Smart Prison 2020** ⬅ ❑ **General digital development**

- ❑ 100 women inmates
- ❑ Personal cell device in every cell
- ❑ Smart system installed
- ❑ Pilot environment for new digital services

- ❑ Digital services as part of everyday management, rehabilitation and interaction between staff and prisoners

- ❑ Digital services portal for joint use workstations
- ❑ Enabling new digital services
- ❑ Inmate e-mail system
- ❑ Digital guidance training to staff

- ❑ Meeting the challenges of covid-19!

General digital development

Gate - Portti: Digital services portal

https://www.rikosseuraamus.fi/fi/index/portti.html
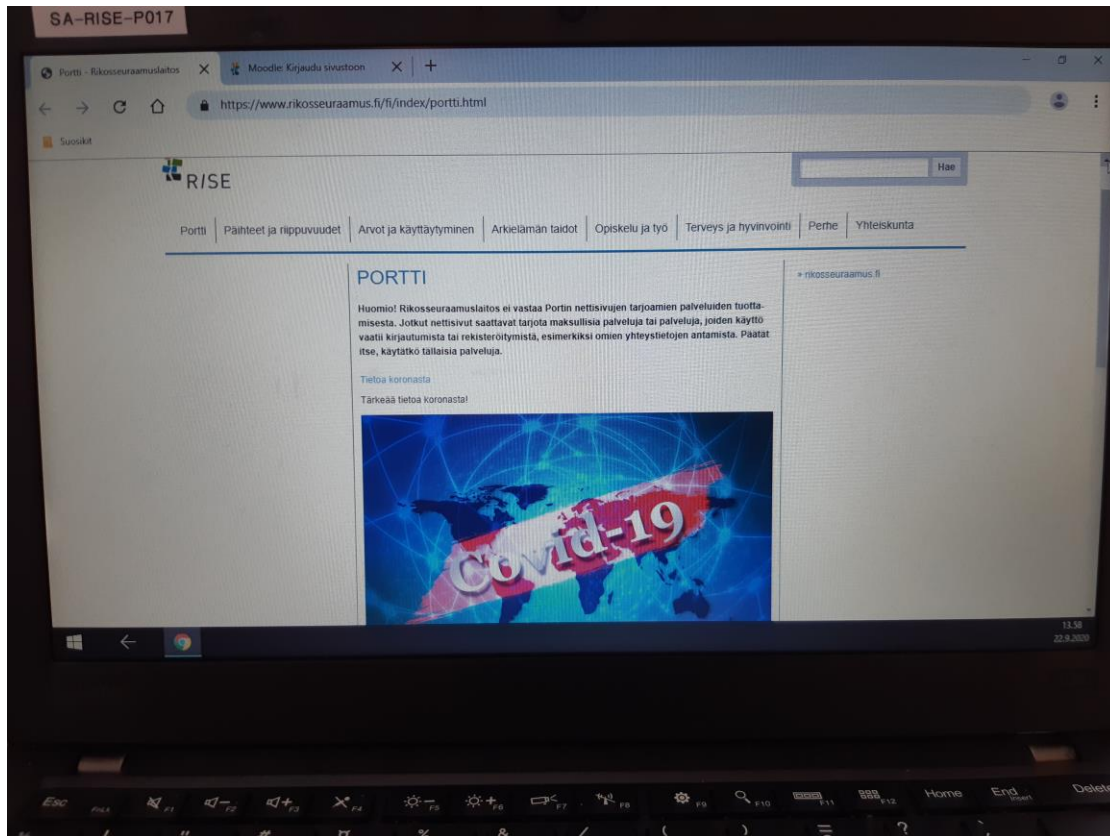
- ☐ Opening page of the joint use workstations
- ☐ Tabs categorize whitelisted websites into seven rehablitative themes
  - ➢ For example substance abuse, education, healthcare, family work & social services
  - ➢ Finnish / Swedish / English

New digital services

❑More whitelisted websites for rehabilitation and studying
- Online programmes
- "Virtual Hospital"
- Suomi.fi electronic messages
- Basics of AI –course

❑Digital skills training
- Digital guidance from staff to prisoners

❑Online consultation
- Public Employment
- Social Insurance Institution
- Red Cross

❑A-Clinic online digital therapy

❑Virtual Reality (VR) pilot
- Separate devices

Developing Smart Prison

GOAL
To improve the prisoners' ability to live without crime
> To decrease the risk of repeated offending

FOR WHOM?
The concepts' beneficiaries include the society, the personnel of the prison as well as the prisoners.

HOW?
Effecting the probability of repeated offending is the foundation of everything. Effects are produced through...

WHY?
The prison concept is based on Finnish Imprisonment act, which states that the goal of the enforcement of imprisonment is to increase the readiness of the prisoner to live a life without crime, by promoting the prisoner's ability to manage his or her life and by promoting his or her adjustment to society as well as to prevent the commission of offences during the term of sentence.

The concept is also informed by the four core values of Criminal Sanctions Agency:

Respect for humanity

Justice

Belief in the ability of a person to change and grow

Security

A prison is a
LEARNING ENVIRONMENT FOR A LIFE WITHOUT CRIME
– safe, encouraging and supporting of participation in society –

Active support and motivation

Humane and respectful interactions

Coaching for change

CULTURE

LEADERSHIP

Supporting convicts' independence and initiative

Matching services to convicts' needs

Building partnerships outside the prison

SERVICE PROVISION

FOR THE PRISONERS
Improved chances of participation in the society and of living without crime during and after the sentence.

FOR THE PERSONNEL
Sense of meaningfulness in work and opportunities for professional growth.

FOR THE SOCIETY
Safety and resource-effectivity that is measurable.

RISE

Prison concept – Smart Prison concept

Prison concept

- Cut costs and uses space more efficiently
- Enable more open prison environment
- Increase prisoners' rehabilitative independence
- Leave more time for interaction and coaching
- Require a new type of a work and management culture

… supported by digital services

- Digital services are cost-effective
- Cell device is a secure access to outside –> WLAN works out of cell too
- Online independent rehabilitation services and studies
- Routine tasks can be managed independently with the cell device
- Change in prison culture enables positive change in prisoners

RISE CRIMINAL SANCTIONS AGENCY

RISE

Service design

☐ Planning and organizing services and their components in order to improve **quality** and **interaction** between the services and the users

☐ Establishing best practices for designing services according to the needs of the users so that the service will be **user-friendly, relevant** to the users and **motivates** the users to use the service more

☐ Prisoner as a customer – user-relevant services are **effective** services that reduce recidivism

Digital service design

- ❑ What are the best digital practices for rehabilitation, reintegration and reducing recidivism?
- ❑ What new innovative digital practices can we pilot in Hämeenlinna?
- ❑ What are the questions for the proof of concept (POC)?

- ➢ Prison concept
- ➢ Scientific research
- ➢ Individual planning of the sentence term
- ➢ Specific needs of women
- ➢ Smart prison model in other countries

Collaborative development process

☐ Workshops and questionnaires for staff and prisoners

☐ Service map with seven rehabilitative themes

☐ Proof of concept (POC) in 2019 in two prisons

☐ Specifically for women:
  ➢ Empowerment & self-esteem
  ➢ Family, parenting and child care
  ➢ Learning and vocational skills for modern job market
  ➢ (Mental) health care: trauma-informed practices
  ➢ Wellness, spirituality, recreation
  ➢ NGOs

Lindström & Puolakka (2020): Smart Prison: the preliminary development process of digital self-services in Finnish prisons.

Service map 2021: examples of services

TH 1 Substance abuse and addictions	TH 2 Values, attitudes and behaviour	TH 3 Everyday life skills	TH 4 Education and vocational skills	TH 5 Health and well-being	TH 6 Children, parenting and social relations	TH 7 Reintegration into society and living without crime
Substance abuse rehabilitation wards ... Programme work ... Digital services	Programme work ... Psychologist's reception ... Spiritual services	Cooking and household skills .. Digital guidance ... Outdoor work / Green care	Basic education ... Library ... Vocational education connected to work activities	Medical care ... Outdoor exercise ... Gym	Different types of visits ... Family ward ... Family camps	Case management and social service counselling ... Support for release ... NGO-services for women

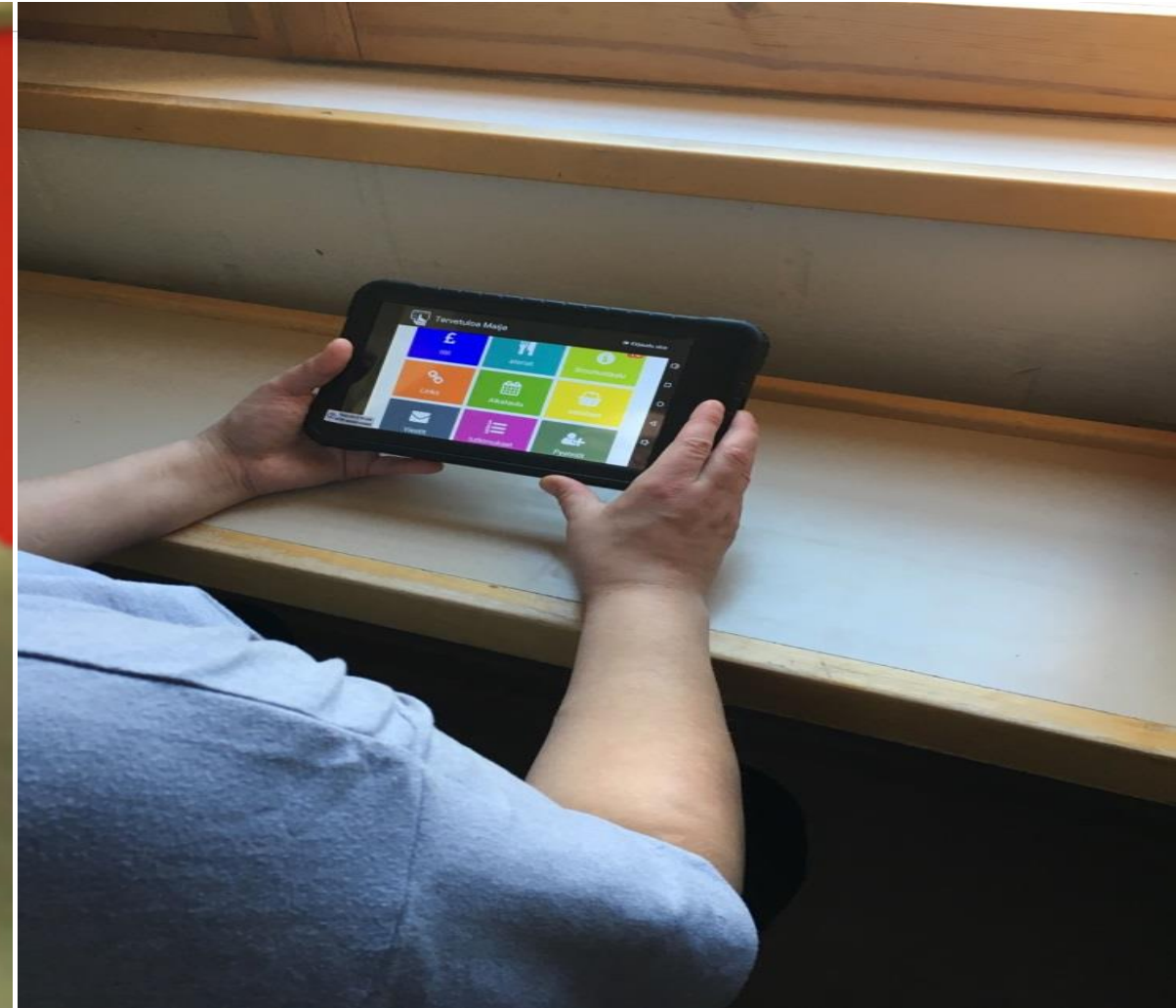| TH 1 Substance abuse and addictions	TH 2 Values, attitudes and behaviour	TH 3 Everyday life skills	TH 4 Education and vocational skills	TH 5 Health and well-being	TH 6 Children, parenting and social relations	TH 7 Reintegration into society and living without crime
Whitelist … Self-help materials in electronic form …	Whitelist … Video consultation with NGOs (for women) …	Whitelist … Online shop … Digital guidance	Whitelist … E-learning Basics of AI -course … Digital Leap course	Whitelist … … … Virtual Forest (VR)	Whitelist … … Virtual visits with family members and other close ones …	Whitelist … Video consultation with communal, judicial and social services (employment, housing etc.) …

e-BO Enterprises / Prison Cloud

Unilink

Digital learning environment

Digital change in prison culture and interaction

- ❑ 100 female prisoners
  - ➤ 100 digitally marginalised
  - ➤ 100 individual cells
  - ➤ Personal smart device in every cell
- ❑ All staff gives digital guidance
- ❑ Bringing together and developing all our best digital practices

Smart cell

Smart Cell

Gerdes

Smart cell device & co.

- Developed in co-operation with Gerdes, Legal Register Center and Government ICT Center Valtori

- Data security auditing by F-Secure

- Lenovo laptops (hardened)
  - LAN + WLAN

- Separate laptops
  - High-school examination
  - E-mail
  - VR

- Separate cell TV & phone

Cell device services

☐ Intranet / noticeboard / news

☐ Restricted internet
  ➢ Whitelisted websites
  ➢ Portti - opening page

☐ Canteen

☐ Virtual visits
  ➢ video calls with prison staff, relatives and public service providers

☐ Messaging
  ➢ requests and applications

☐ e-learning and studying
  ➢ Open Office for homework…
  ➢ Possibility to use Moodle

☐ e-books and audiobooks

☐ Material bank
  ➢ guidelines, self help material for rehabilitation

In a digital learning environment prisoners can…

❑**Manage** their daily affairs via the cell device

❑**Study** also independently and subjects not available in prison

❑**Contact** their relatives online

❑**Consult** professionals and take responsibility for their rehabilitation

❑**Learn** digital skills

❑**Learn** to search for information online

❑**Improve** their free time with meaningful activities when in their cells

❑**Stay on track** what happens inside and outside the prison

❑**Relax** and calm down in a virtual forest

In a digital learning environment staff will…

- **Benefit** from more flexible work flows

- **Contact** prisoners more proactively face-to-face

- **Interact** with prisoners in new ways - online

- **Supervice** digitally

- **Learn** digital skills

- **Guide** prisoners to use digital services

- **Adopt** values and attitudes supporting
  - New prison concept
  - New prison officer concept including both security and rehabilitative work

Integrations 2021 -

- New offender management system
  - Use of AI in offender management
- Prisoner health care management system
- Prisoner payment card
- Integrating other systems that are now separate?

Some digital specialities

NGOs

Digital Leap

➤ Basic skills & coding / image processing

Kalliola Settlement Activities

Visible Women

➤ Online psychologist's consultation

Krits – Finnish Foundation for Supporting Ex-offenders
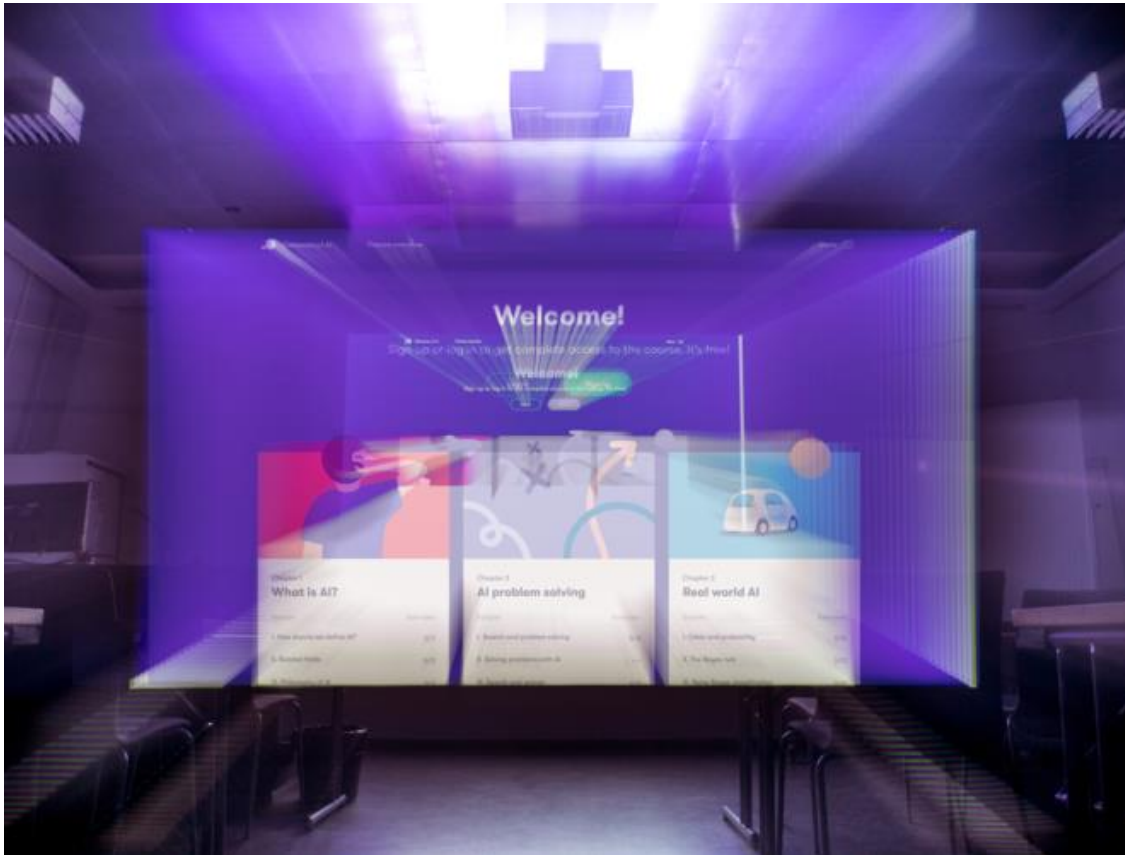
Prisoners learning Artificial Intelligence (AI)

Photo: Matti Ahlgren / Aalto University

❑ **Elements of AI**

© Helsinki University & Reaktor

❑ 6 modules: defining AI, problem solving, probabilities, machine learning, neural networks, future implications

❑ Advanced course is coming…

VR - Virtual forest

University of Tampere - Nukarinen, Istance, Rantala, Mäkelä, Korpela, Ronkainen, Surakka & Raisamo (2020). Physiological and Psychological Restoration in Matched Real and Virtual Natural Environments. Proceedings of CHI EA '20, ACM, pp. 1-8.

Digital services supporting daily activities

Substance abuse rehabilitation wards

Online self-help materials and online programmes

Chapel & facilities for spiritual practice

Streamed spiritual events for isolated prisoners?

Daily living

Kitchen

Cafeteria

Canteen and online material for learning to manage household and financial matters

Recreation & Library

News, radio and e-libraries

School & vocational education

E-learning material, e-books and audiobooks

Child care & parenting

Online material for parenting skills & NGOs' websites

Future

Data and digitalisation strategy 2021-

DigiIN

Towards socially
inclusive digital society

Finnish Institute for Health and Welfare &
Laurea University of Applied Sciences

❑**DigiIn** research project: effects of smart prison

❑Effects of covid-19: use of digital services increases for good

❑Target of digital leap: 10 % of services are used digitally

❑**Extending the smart system to all prisons**

➢smart probations?

Our story continues

☐ **Business Insider**: At prisons in Finland, inmates are learning AI and taking online tech courses as a bridge to life on the outside

☐ https://www-businessinsider-com.cdn.ampproject.org/c/s/www.businessinsider.com/finland-prisons-technology-ai-online-classes-2020-8?amp

Smart Prison opening on the 2 November 2020!

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Smart Prison project

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