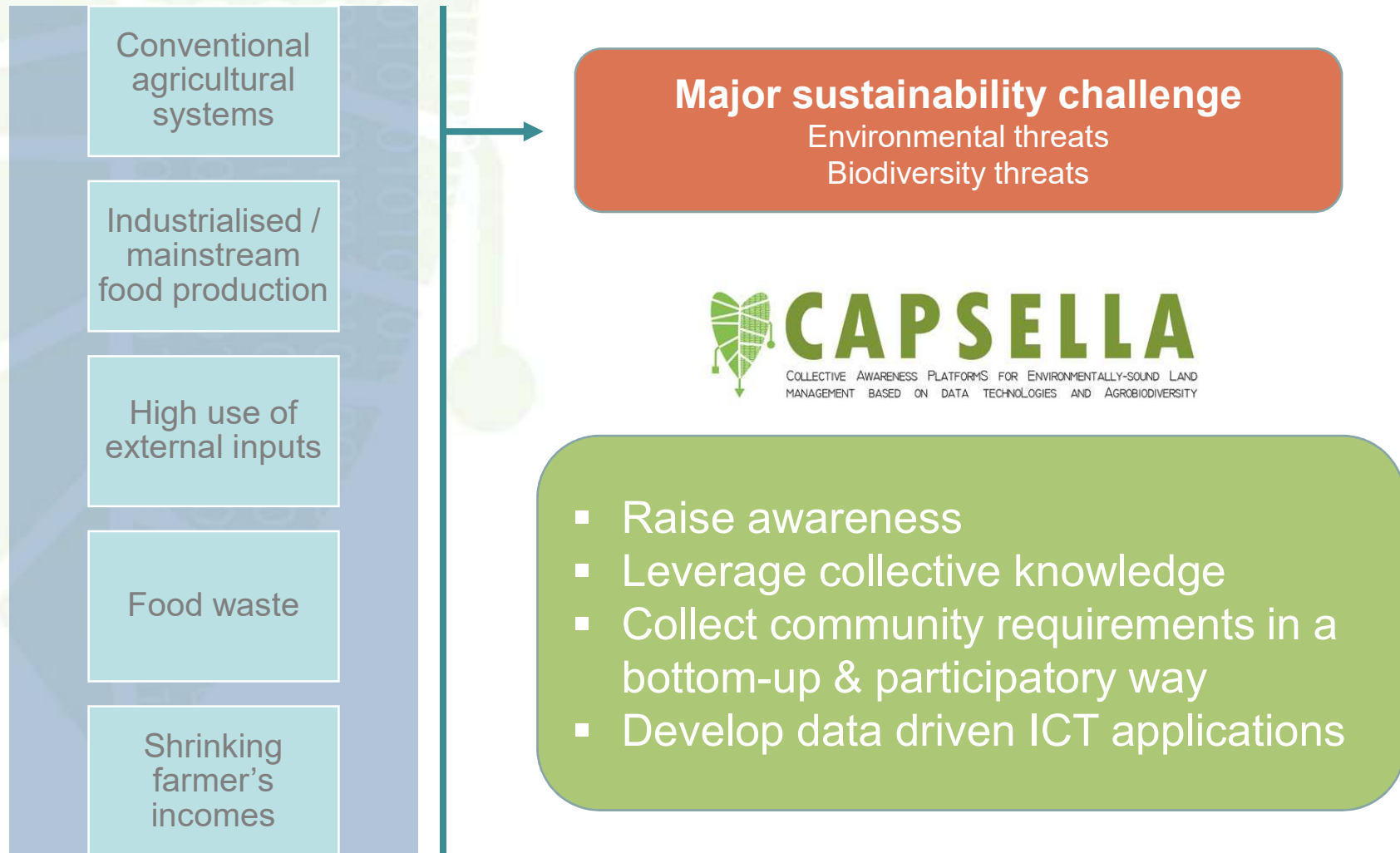**C**ollective **A**wareness **P**latformS for **E**nvironmentally-sound **L**and management based on data techno**L**ogies and **A**grobiodiversity

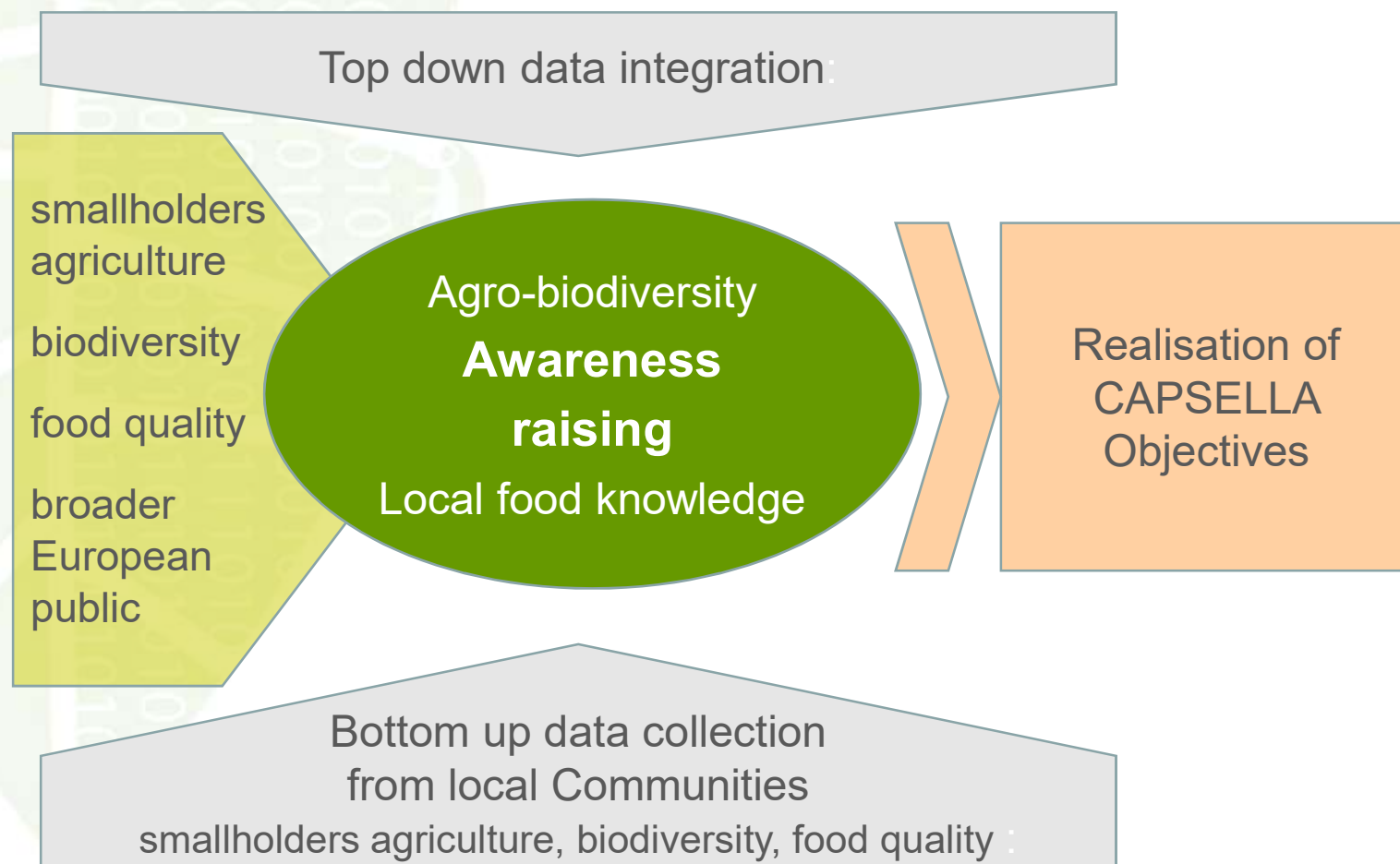# From Farm to Fork:

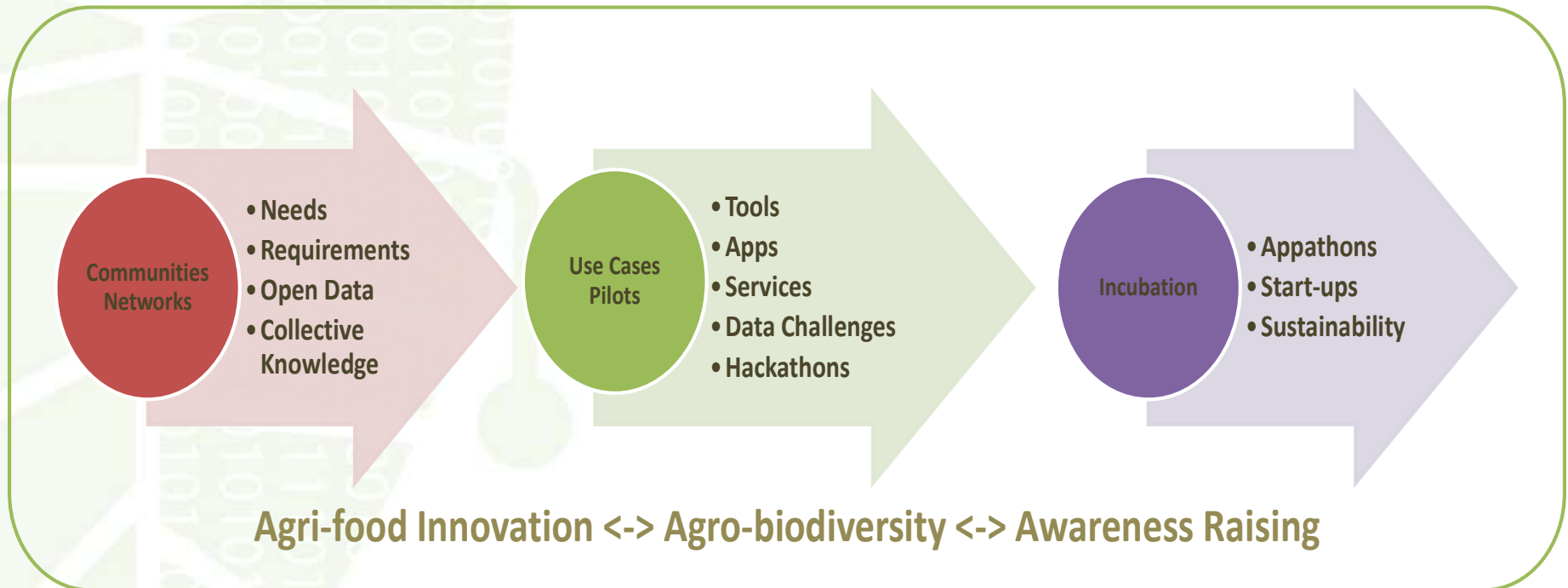# Feeding the World with Data

Eleni Toli, ATHENA Research Center

CAPSELLA

COLLECTIVE AWARENESS PLATFORMS FOR ENVIRONMENTALLY-SOUND LAND MANAGEMENT BASED ON DATA TECHNOLOGIES AND AGROBIODIVERSITY

Motivation & Aims

Conventional agricultural systems

Industrialised / mainstream food production

High use of external inputs

Food waste

Shrinking farmer's incomes

Major sustainability challenge
Environmental threats
Biodiversity threats

CAPSELLA
COLLECTIVE AWARENESS PLATFORMS FOR ENVIRONMENTALLY-SOUND LAND MANAGEMENT BASED ON DATA TECHNOLOGIES AND AGROBIODIVERSITY

- Raise awareness
- Leverage collective knowledge
- Collect community requirements in a bottom-up & participatory way
- Develop data driven ICT applications

Community-driven project and participatory design

Top down data integration

smallholders agriculture

biodiversity

food quality

broader European public

Agro-biodiversity
Awareness raising
Local food knowledge

Realisation of CAPSELLA Objectives

Bottom up data collection
from local Communities
smallholders agriculture, biodiversity, food quality

CAPSELLA Objectives

- Develop a cloud based platform to support community based initiatives

- Build from scratch open data repositories on regional agrobiodiversity

- Build upon and enhance existing data sets on the agro-biodiversity and food domains

- Develop a number of community-driven data powered ICT solutions

- Run pilots with communities

- Run incubation activities for selected pilots

CAPSELLA main pillars

Communities Networks
- Needs
- Requirements
- Open Data
- Collective Knowledge

Use Cases Pilots
- Tools
- Apps
- Services
- Data Challenges
- Hackathons

Incubation
- Appathons
- Start-ups
- Sustainability

Agri-food Innovation <-> Agro-biodiversity <-> Awareness Raising

Awareness Raising Workshops

Collection requirement events

Hackathons

Meetups

Hackathons

Open training days

Hackathon

Entrepreneurship contests

Pre-incubation training bootcamp

CAPSELLA Scenarios

Three community-driven use cases / scenarios that will be addressed following an iterative approach

The Infrastructure

- **"Field scenario"** addressing ecological intensification and functional agro-biodiversity in cropping systems;

The Input

- **"Seeds scenario"** addressing on-farm genetic diversity conservation and management, seed networks and informal seed systems;

The Output

- **"Food scenario"** addressing the food chain by bringing more transparency in the processes related to the production, distribution and consumption of quality food.

CAPSELLA Pilots

Small scale experimental trials with real users that will represent the targeted communities

Czech Republic: Personalised Food System

Netherlands: Precision Farming pilot

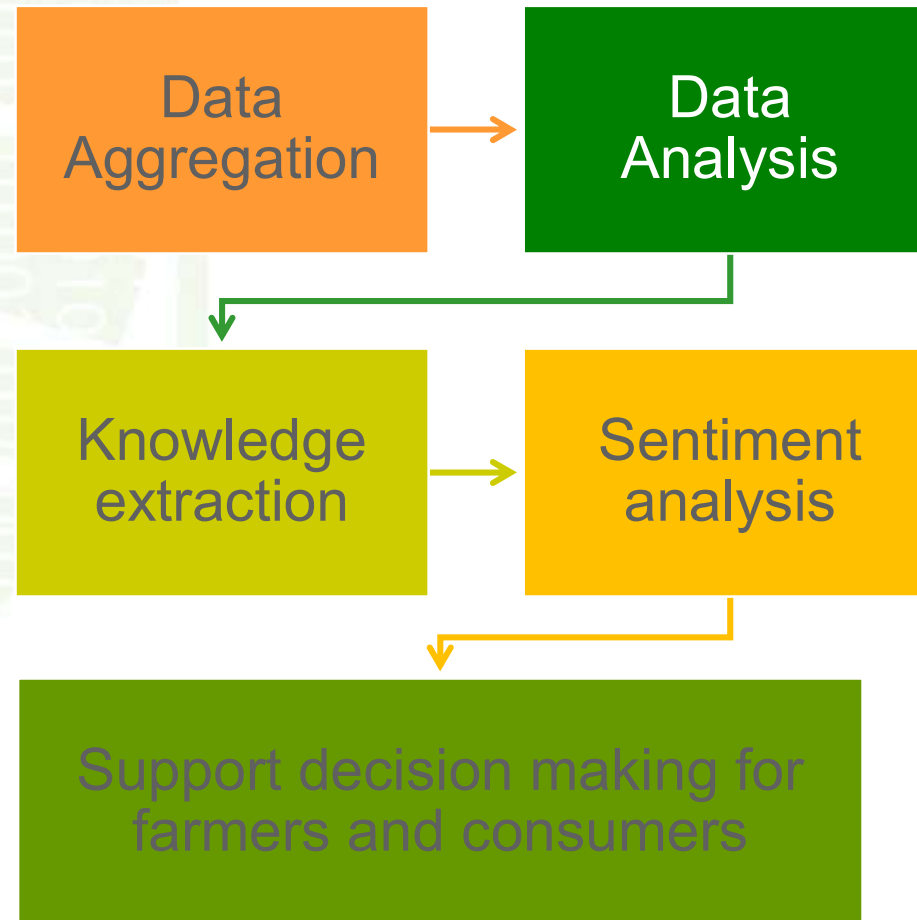Greece: Personalised Food System

Italy and Greece: ICT tools for farmers

Greece: Controlled trials for Stevia Hellas farmers' association in Lamia,

Data from and to the Communities

CAPSELLA Platform

Data Aggregation → Data Analysis

Knowledge extraction → Sentiment analysis

Support decision making for farmers and consumers
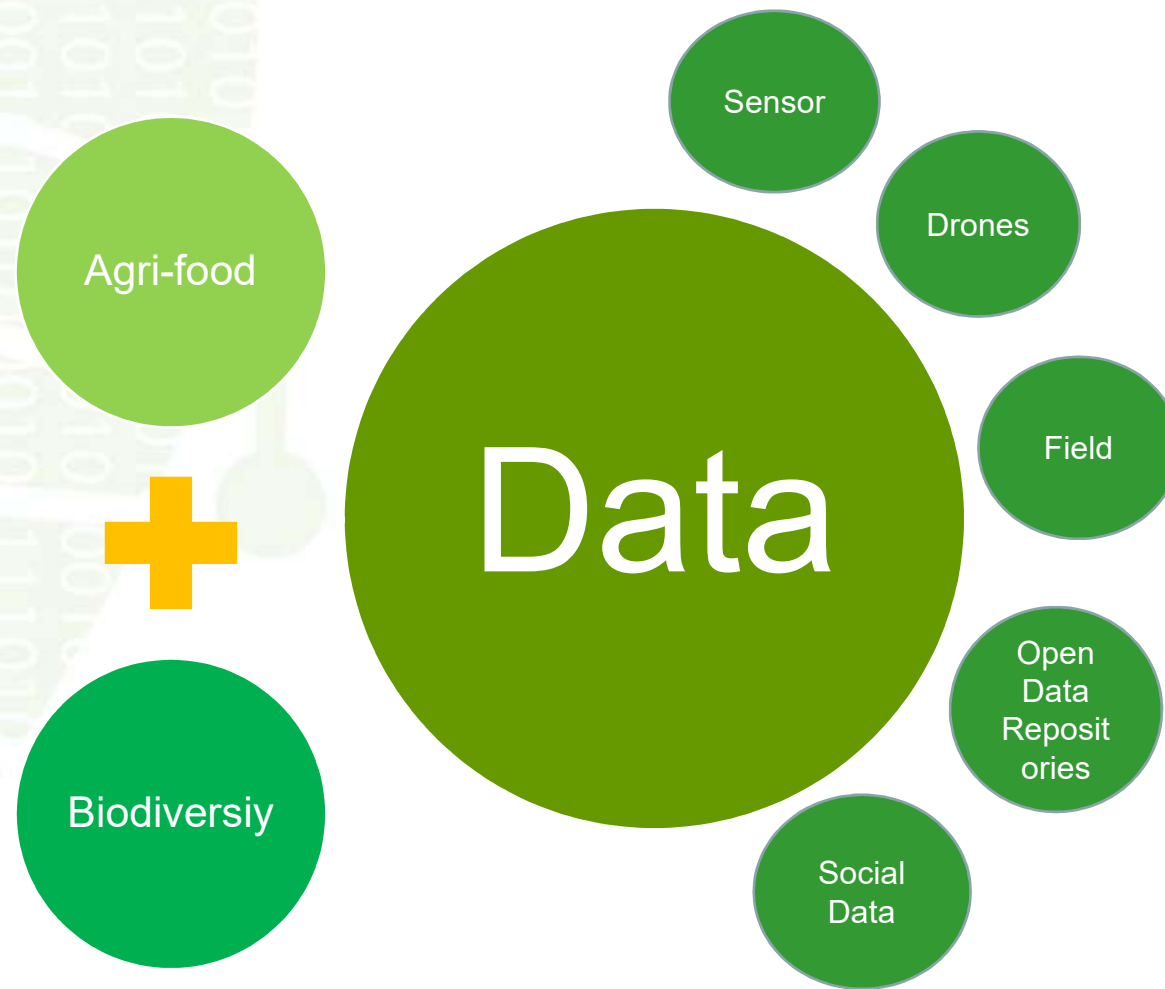
Talking with the taxman about poetry

- How to talk with farmers about data?

- How to make them aware that they own data?

- How to collect the data?

- How to make the 'digested' data available to farmers?

CAPSELLA approach

On site
- Direct on-farm liaisons with farmers
- Liaison with farmer networks and associations

On line
- Community mapping
- Questionnaire

In meetings
- Open Training days
- Workshops

CAPSELLA 1st Workshop

- May 30th and 31st
- Floriddia Organic Farm & SIAF, Volterra, Italy
- Presentations, Practical field session, round table discussions, parallel groups
- Farmers, Farmers Networks, Consumers Networks, Biodiversity, Agri-food and Data Experts, Researchers, EU projects
- Contact: workshop.capsella@sssup.it

Project Facts

- **Starting Date:** January 2016

- **Duration**: 30 months

- **Grant Agreement No.:** 688813

- **Topic:** ICT-10-2015 Collective Awareness Platforms for Sustainability and Social Innovation

- **Consortium**:

  - ATHENA Research and Innovation Center in Information Communication & Knowledge Technologies, Greece (Project Coordinator)

  - Scuola Superiore di Studi Universitari e di Perfezionamento Sant' Anna, Italy

  - Aston University, United Kindom

  - Agroknow, Belgium

  - Rete Semi Rurali, Italy

  - Zephyr srl, Italy

  - We Deliver Taste s.r.o., Czech Republic

  - Zuidelijke Land- en Tuinbouworganisatie, Netherlands

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