Interreg
EUROPEAN UNION
North-West Europe
HappyMoo
European Regional Development Fund

Interreg
EUROPEAN UNION
North-West Europe
HappyMoo
European Regional Development Fund

HAPPYMOO PROJECT

www.nweurope.eu/happymoo

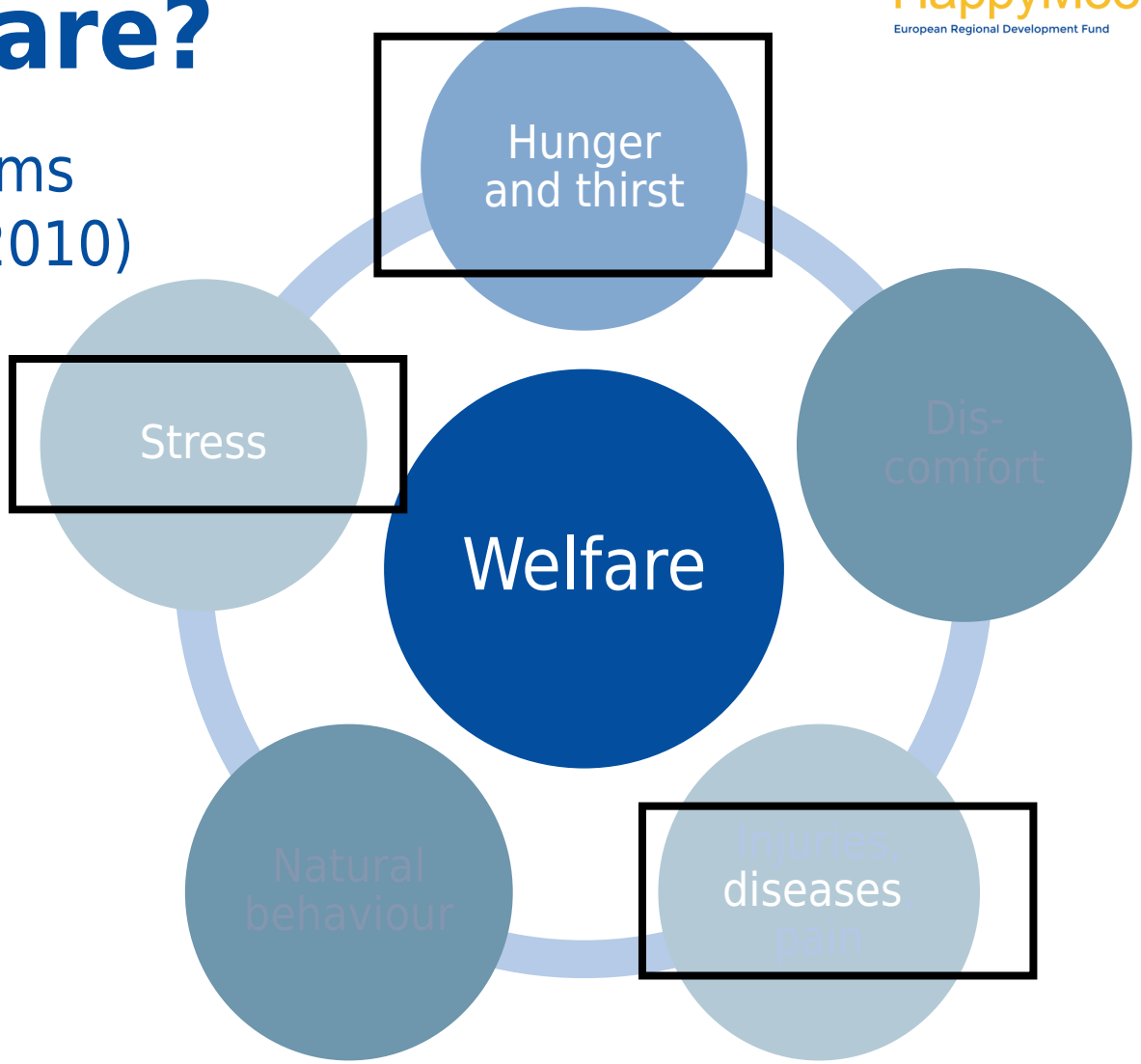
To roll-out monitoring tools to screen the welfare of dairy cows. To provide alerts about the freedom from disease, hunger and stress.

Welfare?

5 freedoms
(FAWC, 2010)

Welfare?

5 freedoms
(FAWC, 2010)



Interreg
EUROPEAN UNION
North-West Europe
HappyMoo
European Regional Development Fund

Background

Interreg
EUROPEAN UNION
North-West Europe
HappyMoo
European Regional Development Fund

Different systems exist to score welfare of dairy cows (Welfare Quality®, ANI, BWAP i.a.)
BUT:

- Herd level
- Only once
- Farm visit necessary → costly

➔Need for fast, recurrent and cheap alternatives
➔HappyMoo project

HAPPYMOO PROJECT
www.nweurope.eu/happymoo

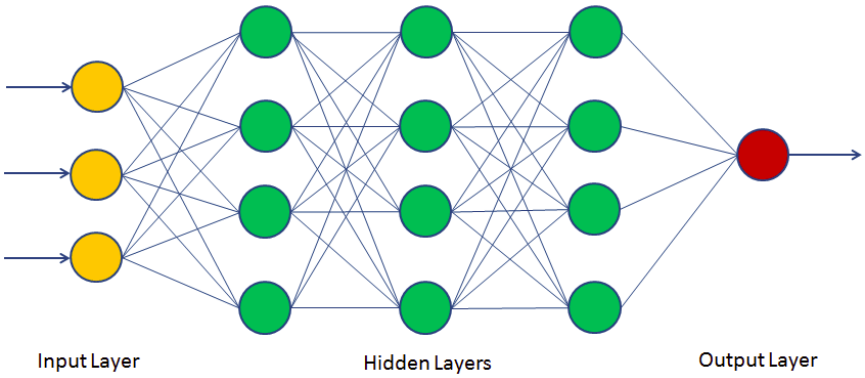
- 42 months: 25/10/2018 – 24/04/2022
- 13 partners in 7 countries
  - ✓ BE, FR, LU, DE, IE, UK, CH
  - ✓ 8 « farmers' organizations »
  - ✓ 2 research centres, 1 university
  - ✓ 1 IT company
  - ✓ 1 pilot milk lab
- Total budget: €4,079,400
- ERDF (60%): €2,447,640

Interreg
EUROPEAN UNION
North-West Europe
HappyMoo
European Regional Development Fund

Work Package 1, 2 & 3 Tasks

Interreg North-West Europe
HappyMoo
European Regional Development Fund

Milk component
Biomarker in milk
Biomarker in blood
Phenotype
DIM
Milk yield
Spectral data
Etc.

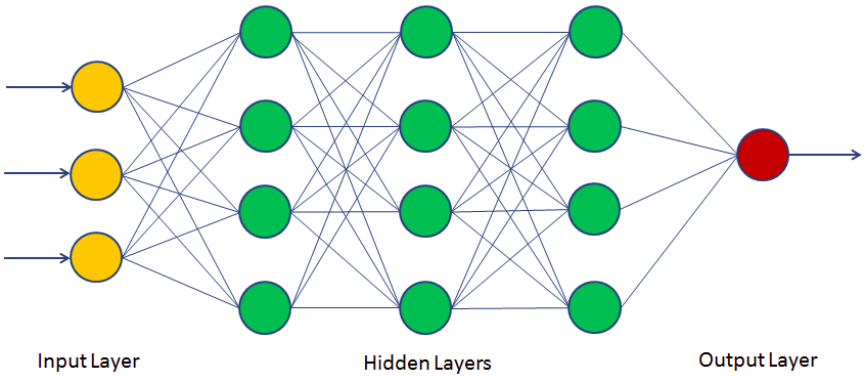


Screening animals

- ✓ Freedom from disease
- ✓ Freedom from hunger
- ✓ Freedom from stress

Interreg North-West Europe
HappyMoo
European Regional Development Fund

Milk component
Biomarker in milk
Biomarker in blood
Phenotype
DIM
Milk yield
Spectral data
Etc.



Screening animals

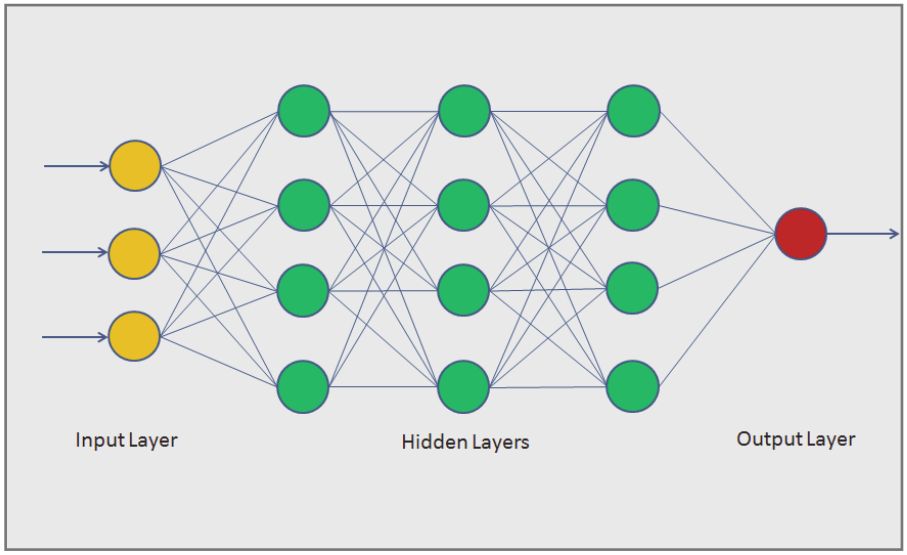
- ✓ Freedom from disease
- ✓ Freedom from hunger
- ✓ Freedom from stress

WP1 – HAPPY DATA

Definition of hunger, stress and disease indicators

Interreg North-West Europe
HappyMoo
European Regional Development Fund

Milk component
Biomarker in milk
Biomarker in blood
Phenotype
DIM
Milk yield
Spectral data
Etc.



Screening animals

- ✓ Freedom from disease
- ✓ Freedom from hunger
- ✓ Freedom from stress

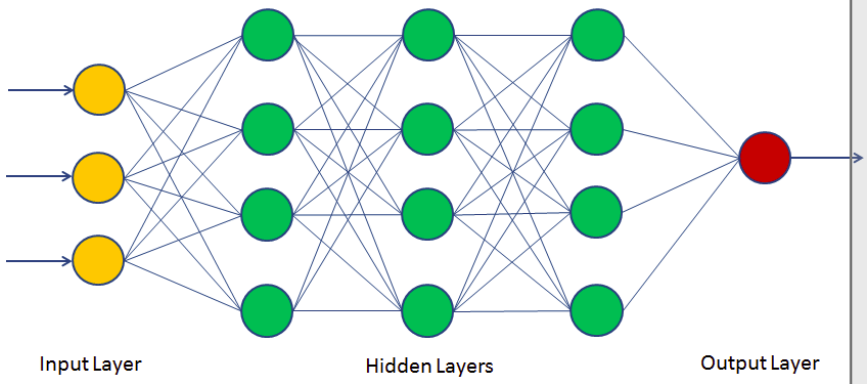
WP2 – HAPPY TOOLS

MACHINE LEARNING

Warning index linked with potential economic losses or savings (e.g. antibiotics)

Interreg North-West Europe
HappyMoo
European Regional Development Fund

Milk component
Biomarker in milk
Biomarker in blood
Phenotype
DIM
Milk yield
Spectral data
Etc.



Screening animals

- ✓ Freedom from disease
- ✓ Freedom from hunger
- ✓ Freedom from stress

WP3 – HAPPY USER

HAPPYMOO TOOL (Web interface)

Interreg
EUROPEAN UNION
North-West Europe
HappyMoo
European Regional Development Fund

Partnership

GROUPE

CONVIS

Interreg
EUROPEAN UNION
North-West Europe
HappyMoo
European Regional Development Fund

QUALITAS

FRANCE
CONSEIL ÉLEVAGE
Donner du sens à la mesure

NMR

Wallonie
recherche
CRA-W

LKV
Baden-Württemberg

LKV

estel
la culture du numérique

LIÈGE université
Gembloux
Agro-Bio Tech

ICBF.com

IfM
Institut
für
Milchuntersuchung

INSTITUT DE
L'ELEVAGE
idele