

# UgenTec



Animal, plant & seed health  
pathogen detection workflows



Breeding & QC purity check  
genotyping workflows



Our mission is to simplify the way diagnostic  
laboratories work across the globe.



The world is  
**connected,**  
smart &  
automated



Laboratories are using  
spreadsheets,  
macros &  
custom software



# Robots help automate PCR workflows – interpretation requires human input

Extraction



Set-up



Amplification



Results, QC follow  
up & LIMS reporting



Manual, paper based  
workflow: time consuming  
& error-prone



Automate & standardise your animal, plant  
& seed health inspection assays



UgenTec FastFinder - 3.3.3

UgenTec

START ANALYSES DEVICES ASSAYS QC ARCHIVE SETTINGS HELP LOGOUT

New analysis X +

DATA INPUTS RESULTS EXPORTS REPORTS REPORT VIEWER

1 Select datafile 2 Assign assay(s) 3 Configure assay(s)

Current directory: C:\Users\An Broekmans\Desktop\TOBE processed Browse Refresh

Search 12 of 12

	File name	Date	Filesize (MB)
<input type="radio"/>	Amplification_Multimix.xml	22/11/2018	3.72
<input type="radio"/>	Amplification_SingleMix_ABI7500.eds	22/11/2018	0.41
<input type="radio"/>	Demo Quantification exrun.ixc	22/11/2018	3.25
<input type="radio"/>	Demo Quantification exrun2.ixc	22/11/2018	3.25
<input type="radio"/>	Demo Quantification inrun.ixc	22/11/2018	3.27
<input type="radio"/>	DEMO_RelQUANT_demo_run.ixc	22/11/2018	14.00
<input type="radio"/>	File1.ixc	22/11/2018	3.28
<input type="radio"/>	File2.ixc	22/11/2018	3.28
<input type="radio"/>	File3.ixc	22/11/2018	3.28
<input type="radio"/>	File4.ixc	22/11/2018	3.28
<input type="radio"/>	File5.ixc	22/11/2018	3.28
<input type="radio"/>	Melting curve analysis.ixc	22/11/2018	4.23

NEXT STEP

1. (Auto)select a raw data file

UgenTec FastFinder - 3.3.3

UgenTec

START

ANALYSES

DEVICES

ASSAYS

QC

ARCHIVE

SETTINGS

HELP

LOGOUT

Amplification\_Multin

+

DATA INPUTS

RESULTS

EXPORTS

REPORTS

REPORT VIEWER

Overview

Resolve

Details

Edit sample

Result control(s):

✓ All negative controls are valid

✓ All positive controls are valid

✗ Not all regular samples are valid

Search

27 of 27

Well	Assay	Cq values	Sample comment	Overall results
B6	Demo MultiMix 3.1 - MIX1 - Negative control	IC: 31.05		NC - Negative
D7	Demo MultiMix 3.1 - Mix2 - Negative control			
B7	Demo MultiMix 3.1 - MIX1 - Negative control	IC: 31.10		NC - Negative
D8	Demo MultiMix 3.1 - Mix2 - Negative control			
B8	Demo MultiMix 3.1 - MIX1 - Negative control	IC: 31.08		NC - Negative
D9	Demo MultiMix 3.1 - Mix2 - Negative control			
A10	Demo MultiMix 3.1 - MIX1 - Positive control	465-510: 26.85 618-660: 27.90		PC - Positive TargetM1_1, TargetM1_2, TargetM2_1, TargetM2_2, TargetM2_3 detected
D10	Demo MultiMix 3.1 - Mix2 - Positive control	465-510: 28.00 533-580: 29.02 533-610: 28.99		
A11	Demo MultiMix 3.1 - MIX1 - Positive control	465-510: 26.90 618-660: 27.96		PC - Positive TargetM1_1, TargetM1_2, TargetM2_1, TargetM2_2, TargetM2_3 detected
D11	Demo MultiMix 3.1 - Mix2 - Positive control	465-510: 28.00 533-580: 29.05		

RESTART ANALYSIS

REJECT ANALYSIS

AUTHORISE ANALYSIS

1. (Auto)select a raw data file

2. Analysis & interpretation with one click



Ugentec FastFinder - Accept - 3.3.4

Ugentec

START ANALYSES DEVICES ASSAYS QC ARCHIVE SETTINGS HELP LOGOUT

Amplification\_Multin

DATA INPUTS RESULTS EXPORTS REPORTS REPORT VIEWER

### Export settings

Export name: Amplification\_Multimix

Export by: an.broekmans+demo@ugentec.com

LIMS Export

☐ Standard ASTM Integration

Standard report

☒ Amplification Curve Analysis (PDF)

☒ Assay information

☒ Overview

☐ Sample graphs

☐ Target graphs

☐ Standard curve

☐ QC overview

☒ Audit Trail

Report settings

Sort by: ☐ Well position ☐ Sample name ☒ Assay ☐ Result

Filter by:

Custom report

☐ Cq values (CSV)

Report comments (only PDF)

### Experiment information

Experiment file: Amplification\_Multimix.xml

Instrument version: HTC\_VER\_10

Device name: LC480 SNR 20542

Instrument ID: 20542

Experiment created at: 10/11/2018 12:16:33

Experiment created by: System Admin

### Analysis information

Analysis name: Amplification\_Multimix

Analysis created by: jelle.willems+demo@ugentec.com

Start time analysis: 06/02/2019 09:53:01

Software version: FastFinder 3.3.4

Authorised by: jelle.willems+demo@ugentec.com

Authorised at: 06/02/2019 09:55:58

### Assay information

Demo MultiMix 3.2

Assay version: v1.0

Algorithm version: DEMO\_AMP2\_0\_A

Assay lot number: qmskdjhgs

Color compensation: DEMO\_ColorComp.ixc (CC)

EXPORTS

1. (Auto)select a raw data file
2. Analysis & interpretation with one click
3. Export downstream

# FastFinder



## Automated

Run complex real-time PCR analyses in seconds



## Standardised

Work with end-to-end standardised & deterministic algorithms



## Flexible

Add different types of assays, with different decision trees & pathogens

UgenTec



START



ANALYSES


Amplification\_Multimix



Overview

Resolve <sup>2</sup>

Details

Result control(s):  All negative controls are valid

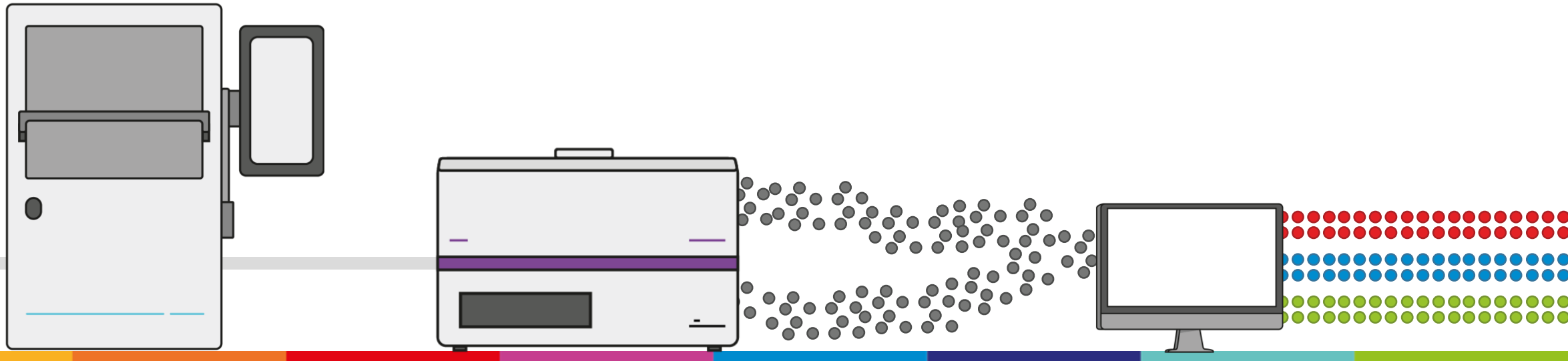
	Name	Well	Assay
	S-Sample9	C9	Demo MultiMix AdenoInflEntero
	S-Sample10	C10	Demo MultiMix AdenoInflEntero
	S-Sample11	C11	Demo MultiMix AdenoInflEntero
	NC	B6	Demo MultiMix Negative contro



End-point genotyping software

## Scale your genotyping capabilities beyond human capabilities

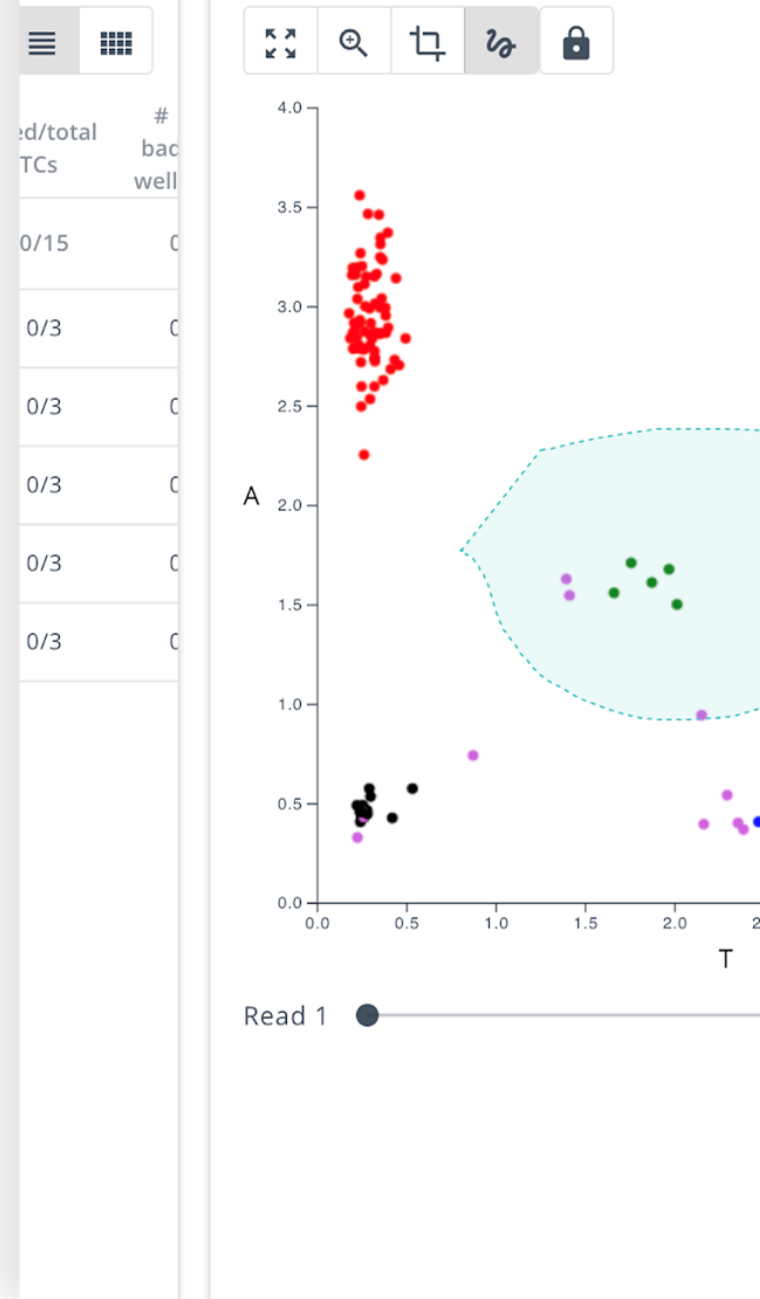
Co-developed with 4 AgBio Companies





Scalable

Speed up the genotyping process  
to do more with the same resources





Scalable

Speed up the genotyping process  
to do more with the same resources



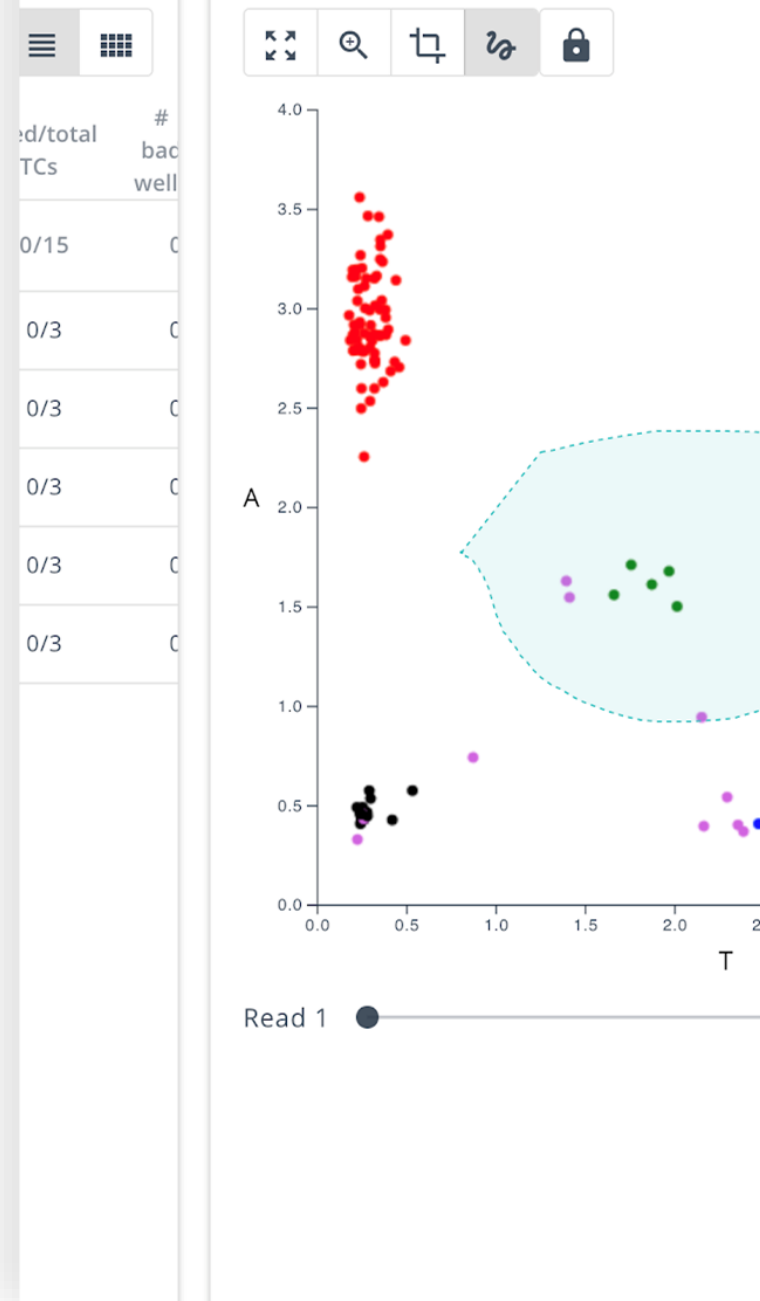
Reliable

Get reproducible results  
and genotype with confidence

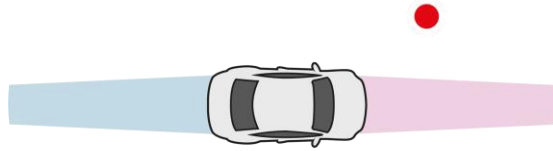


Smart

Train your own AI assistant,  
on a species & assay level

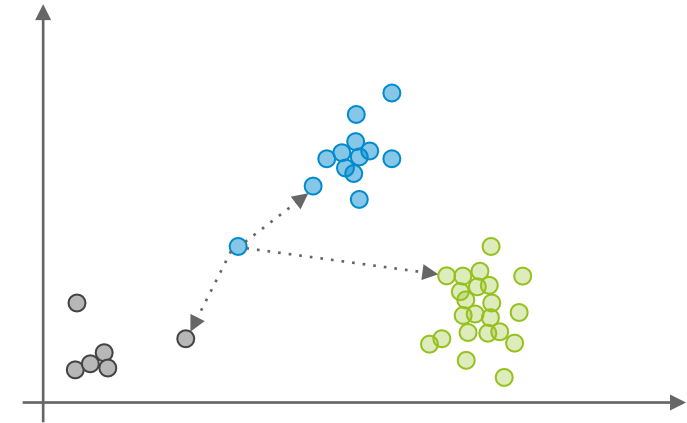


# Current technology oversimplifies complexity of measurements



Simple parking sensor

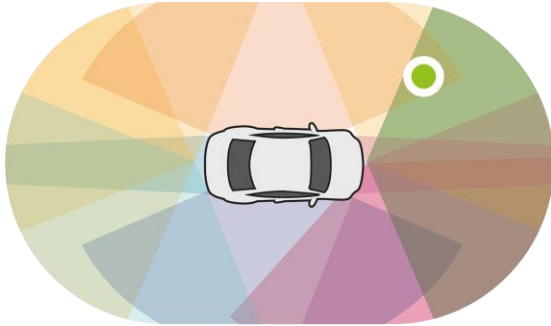
Detect objects to the front and rear of the vehicle. A drastic oversimplification of a traffic situation.



Traditional clustering

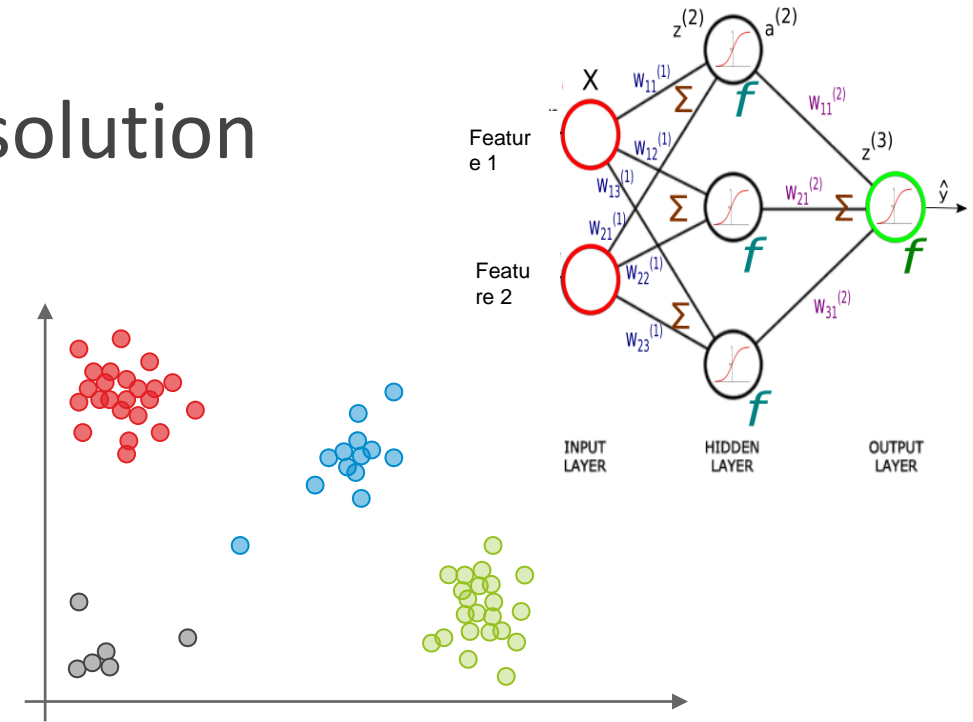
Measure relationships between areas of datapoints within a single plot to distinguish between different clusters.

# Deep learning is a proven solution



Self-driving vehicle

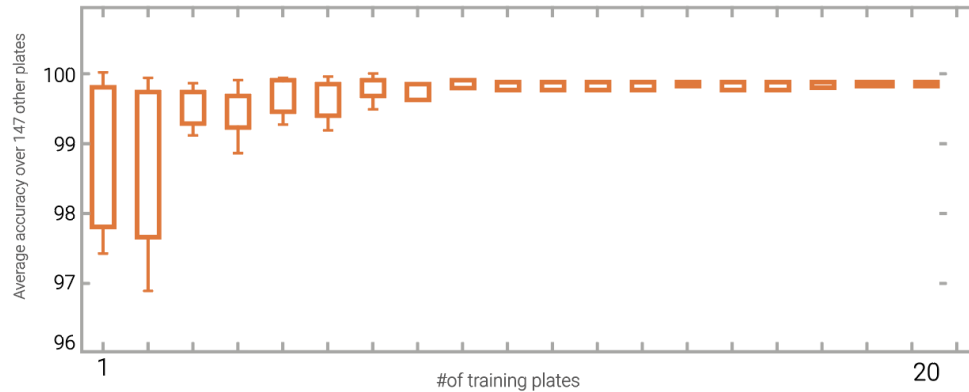
Analyse multiple features of a traffic situation, being able to intelligently detect danger and take action.



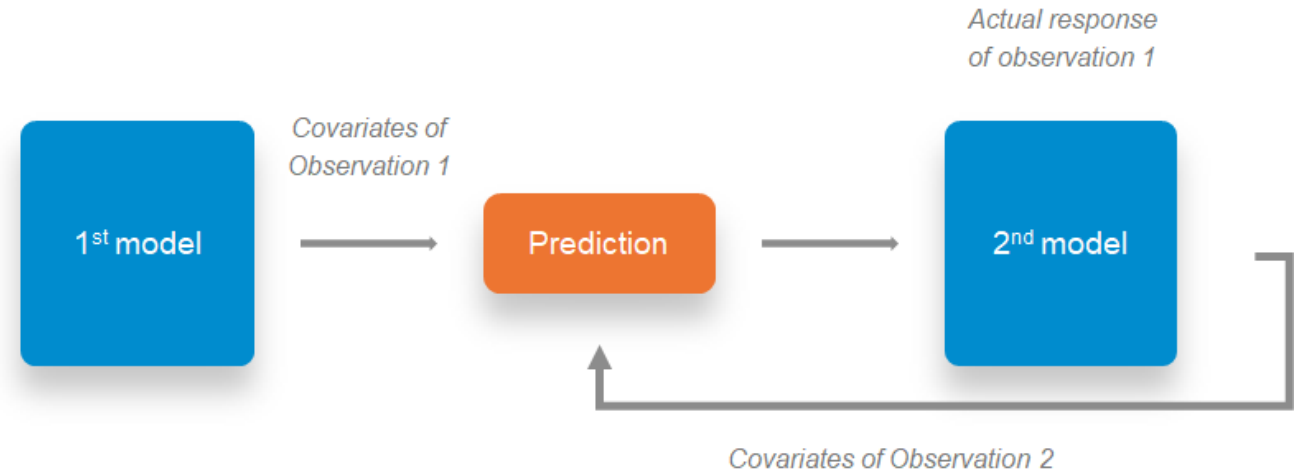
FastFinder tech

Take into account historical learnings and calculate probabilities of a result being a certain state

# Learning pace



**Learning pace** - This image depicts the average per plate accuracy of one assay-algorithm after training it on 1, 2, 3, 4, 5,...20 random other orders. After only 2 orders, the algorithm is >99% accurate, after 8 plates it reaches >99.99% accuracy versus human interpretation.



Train your software while you use it



# A trusted partner.



Rollout large, compelling menu



Automated quantitative result interpretation



Manage global rollout

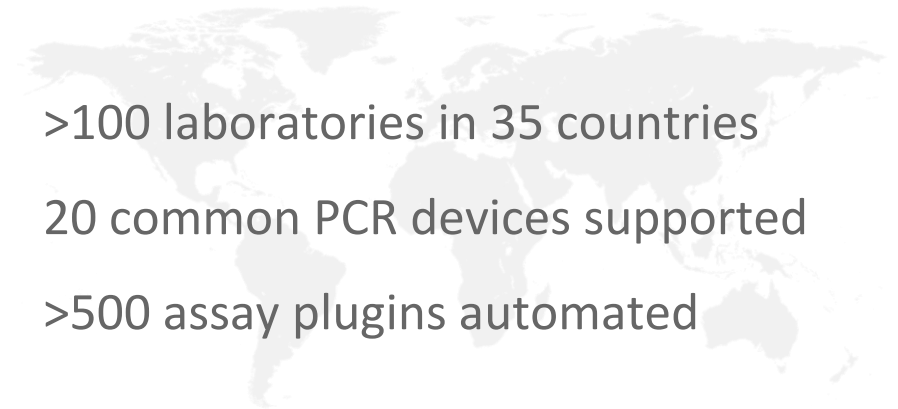


Workflow software for sample in - result out systems

>100 laboratories in 35 countries

20 common PCR devices supported

>500 assay plugins automated



# Scaling up

2014	Founded in 2014, spin-off of KULeuven
April 2015	1.4 M EUR seed funding
November 2016	2.15 M EUR post-seed funding to drive product market fit
March 2018	7.5 M EUR Series A investment to drive growth, new products, expansion into adjacent markets.

# Secure. Validated. Global.

UgenTec focuses on building secure hosted solutions, so data is always safe, private & fast.

Hosted across the globe  
on



Certified quality  
management system



CE-IVD, IVDR & FDA  
processes in place



# Timing



Animal, plant & seed health  
inspection workflows

Available now



Breeding & QC purity check  
workflows

Go-live with first customers in  
June

Support for other genotyping  
platforms in Q3-Q4 2019