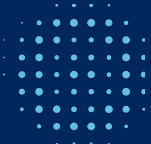


**FOSS**

ANALYTICS BEYOND MEASURE

# FoodScan™ 2



There's more to know

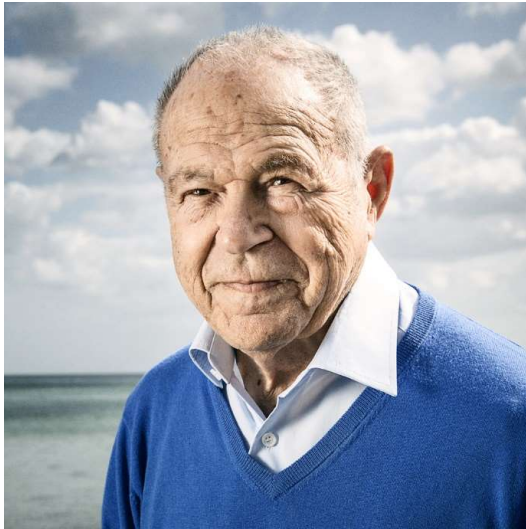
**FOSS**

ANALYTICS BEYOND MEASURE



# A HISTORY OF PIONEERING INVENTIONS

# FOSS



In 1956, Nils Foss identified the need for a portable moisture analyser

Fast, easy-to-use and dedicated, the Cera-Tester was the first FOSS innovation

Matching innovative technology to the demands of particular industries has been the foundation of FOSS ever since



**1956**

Cera Tester monitors moisture content in grain. The instrument is a highly popular world first.



**1963**

Milk becomes a major business area, and the Pro Milk helps to speed-up the analysis of fat content in milk.



**1973**

The Tecator Kjeltex™ paves the road for simpler, safer, less time-consuming and more cost efficient Kjeldahl analysis.



**1980**

Analysis of individual bacteria or somatic cells leads to dramatic improvements in raw milk quality.



**1997**

FOSS acquires Perstorp Analytical and improves consistency of analysis results throughout the grain industry via NIR.



**1999**

WineScan introduces FTIR analysis as an effective way of improving quality throughout the wine making process.



**2003**

Introduction of X-ray analysis of meat allows entire batches of meat to be checked for fat



**2014**

For the Indian market, FOSS introduces the tiny milk analyser, MilkoScreen™, for milk quality testing and adulteration screening



**2016**

FOSS acquires Soft Flow in Hungary, adding extensive knowledge within biotechnology



**2019**

The integrated SmartCare™ service solution is introduced, enabling remote service and monitoring

ANALYTICS BEYOND MEASURE

# OUR MISSION

We contribute to the sustainable use of our planet's agricultural resources and thus to the nutrition and health of the people of the world.

We provide analytics beyond measure to add value to our customers by improving quality and optimising food and agricultural production.

# INDUSTRY LEADING SOLUTIONS FOR INDUSTRY LEADING CUSTOMERS

# FOSS

RAW MILK TESTING



DAIRY



GRAIN, MILLING & OILS



WINE



MEAT



FEED & FORAGE



OTHER INDUSTRIES



LABORATORIES

ANALYTICS BEYOND MEASURE



# INDUSTRY LEADING SOLUTIONS FOR INDUSTRY LEADING CUSTOMERS

# FOSS

ANALYTICS BEYOND MEASURE

## RAW MILK TESTING



## DAIRY



## GRAIN, MILLING & OILS



## WINE



## MEAT



## FEED & FORAGE



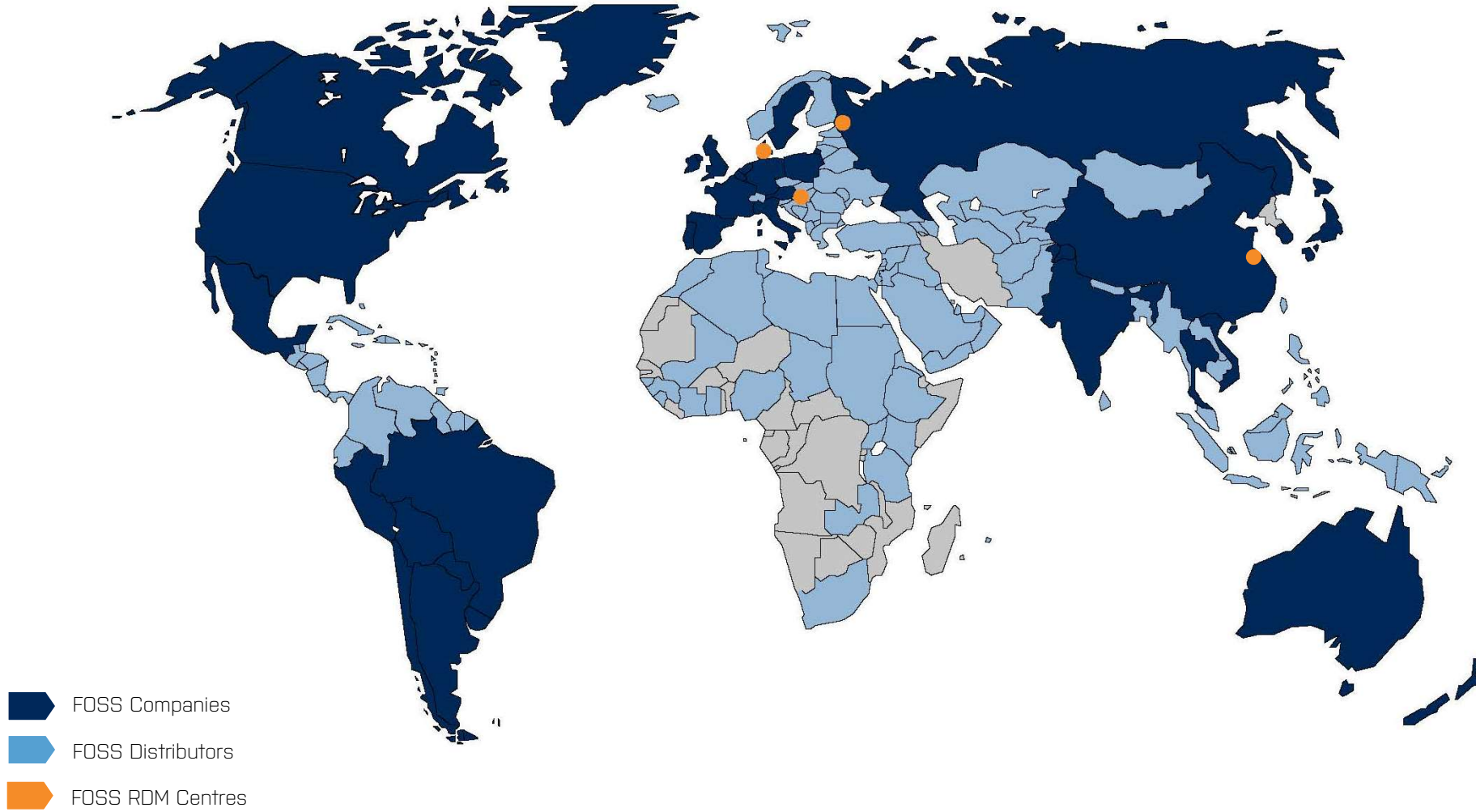
## OTHER INDUSTRIES



## LABORATORIES

# GLOBAL PRESENCE

# FOSS



**FOSS**

# FoodScan™ 2



ANALYTICS BEYOND MEASURE

## FoodScan™ HAS BEEN THE GLOBAL STANDARD FOR MORE THAN 10 YEARS

The AOAC approved FoodScan has provided meat plants the world over with the knowledge needed to improve the quality and consistency of end-products and optimize production processes.

Did you know that FOSS has been the market leader for NIR solutions for more than 30 years, and has 60 years of experience with food analytics?

Today more than 1.600 FoodScans are in operation with meat processing plants worldwide - a proof that the meat industry sees FoodScan as the standard for analysis of raw meat and processed meat products.



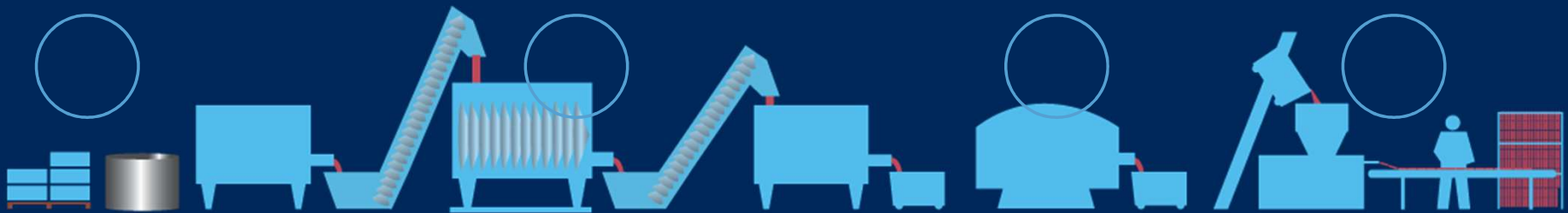
## A DEDICATED SOLUTION FOR ANALYSIS OF MEAT AND PROCESSED MEAT PRODUCTS

FoodScan™ has enabled efficient quality control of fat, protein, moisture, collagen, salt, ash and other parameters in meat and processed meat products

Anyone in production and the lab can operate a FoodScan and access the knowledge that can improve quality and consistency of end-products and optimise the production process.

**Over the last 10 years the FoodScan's position as the number 1 analyser hasn't changed – but your challenges have!**

 **FoodScan™**



# NOW THE BEST IS EVEN BETTER! THERE'S MORE TO KNOW WITH FoodScan™ 2 MEAT ANALYSER

- **LABEL PARAMETERS** – more information for your consumer pack labelling
- **MEASURE COLOUR** and composition simultaneously
- **BATCH STANDARDISATION** function to ease your adjustment of fat content in a batch
- Delivers **LEADING ACCURACY**– even for less homogenous samples
- **TIME TO RESULT** reduced by up to 50%
- **READY TO USE** calibrations – covering raw material as well as finished products
- Maintain **TOP PERFORMANCE** with digital services



# ALL PARAMETERS YOU NEED FOR YOUR LABELLING IN ONE ANALYSIS

With FoodScan™ 2 you get the information you need for labels on consumer packs.

This gives you the possibility to reduce your costs for use of external labs and enables the QA lab to do more with the same resources.



## LABEL PARAMETERS

Besides Fat, Moisture, Protein, Collagen and Salt (Cl-based) the FoodScan 2 delivers results about the content of Energy, Carbohydrates, Saturated Fat, Sodium and Ash.

Nutrition		GDA	
Typical Values	per 100g (approx 1/4 quiche)	Average adult	per portion
Energy Value	1150 kJ		
(Calories)	275 kcal)	2000 kcal	14 %
Protein	8.1 g	45 g	18 %
Carbohydrate	14.9 g	230 g	6 %
(of which Sugars	1.7 g) <b>Low</b>	90 g	2 %
<b>Fat</b>	20.6 g <b>High</b>	70 g	29 %
(of which Saturates	9.0 g) <b>High</b>	20 g	45 %
Fibre	2.6 g	24 g	11 %
Sodium	0.3 g	2.4 g	12 %
<b>Salt</b>	0.7 g <b>Med</b>	6 g	12 %

GDA = Guideline Daily Amounts

*”Being able to analyse for the label parameters with the new FoodScan™ 2 will reduce our use of external laboratory ... that’s a true lab cost saving!”*

*Lab manager  
Europe*

## MEASURE COLOUR AND COMPOSITION SIMULTANEOUSLY



The impact of colour on consumer preference has increased steadily over the last 10 years.

**Colour is now strongly associated with product quality.**

- The colour module is one of the new features available with FoodScan™ 2
- Colour is measured with the CIE L\* A\* B standard
- The colour measurement is done at the same time as the composition parameters are measured





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## INCREASE PRODUCTION EFFICIENCY AND PRODUCTIVITY

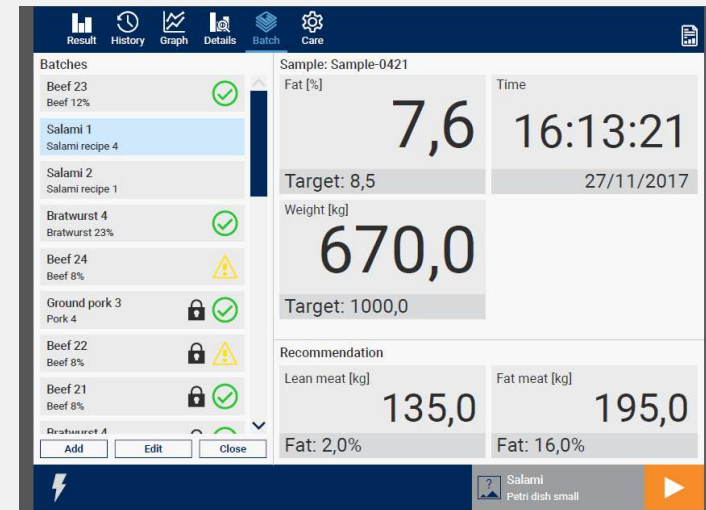
The Batch Standardisation software add-on makes it easy to do manual batch standardisation.

There is no need for manual calculation so you can avoid the risk of human errors.

There is no need to use and maintain an external software program.

Free up time - and increase productivity with all features integrated in the FoodScan™ 2.

## BATCH STANDARDISATION SOFTWARE MODULE



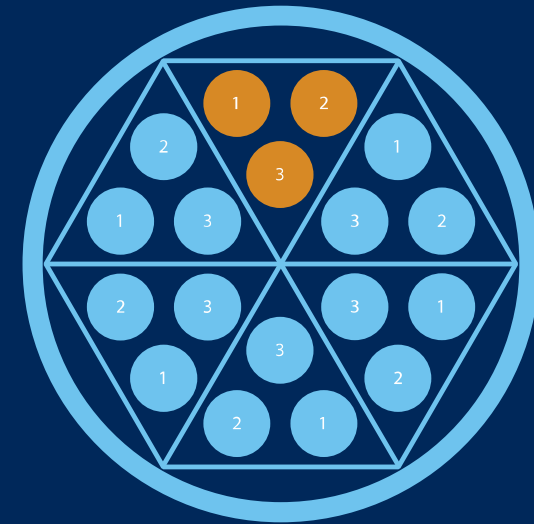
- Key in the target volume and fat% of the batch on the FoodScan 2 display
- Add information about present volume produced
- Based on the fat% of the sample the FoodScan 2 will inform you of the type and volume of raw material you need to add
- Reach your batch target

## WE CAN'T OMIT SAMPLE PREPARATION...

### But we can give you more options:

- Optimise your sample preparation protocols and achieve same accuracy with a faster preparation
- Keep your current sample preparation protocols and achieve greater precision

## THERE'S MORE TO KNOW ABOUT EVERY SAMPLE



### Accurate results every time because:

- With 3 sub-scans an even larger share of the sample is measured, which make you less dependent on the homogenisation step.
- FoodScan™ 2 is a major step forward in NIR transmission technology.

## TIME TO RESULT REDUCED BY UP TO 50%

The demand for greater efficiency grows as meat plants increase throughput and introduce new end-products to stay competitive and meet changing consumer preferences. This adds to the work-load at the process line and in the QA laboratory.

**Faster analysis time enables faster processing of each batch and increased production efficiency.**



# FOSS



**ANALYSIS TIME CAN BE  
AS FAST AS 25 SECONDS**

## READY TO USE CALIBRATIONS – ALSO WHEN INTRODUCING NEW PRODUCT TYPES

Change is inevitable. Raw materials change. Production processes change. Consumer trends change and new products are introduced.

The intelligence and robustness of the ANN calibrations ensure you're well equipped to deal with it all!

If you need to control parameters or products that are not covered by the ANN calibration, we can support you with the tools and competences required to make customised models.



There's more to know with calibrations based on **30,000 reference samples**

FoodScan's ANN calibration covers raw meat varieties, intermediate materials like mixes and filling material for sausages and a wide range of cooked and cured meat products.



**BEEF**

PORK

**LAMB**

MUTTON

**CHICKEN ETC.**

MDM (Mechanical Deboned Meat)

**SAUSAGES (COOKED, DRIED)**

HAM (COOKED, CURED)

**BACON**

and much more ....

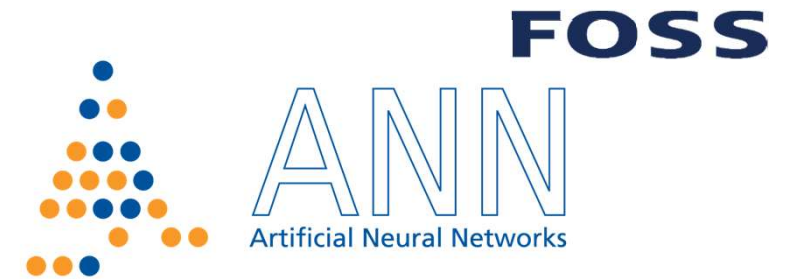


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**There's more to know with calibrations based on 30,000 reference samples.**

FoodScan's ANN calibration covers a wide range of solid and semi-solid dairy products



**CHEESE**

**BUTTER**

**SPREADS**

**CULTURED AND FERMENTED PRODUCTS**

**WHEY POWDER**

## EVEN EASIER TO USE! FAST AND INTUITIVE OPERATION

The right analyser is not enough. To ensure products are always made to spec you also need to continuously rely on your operators' skills.

In a busy environment you need to ensure that operations run as smoothly as possible.

*"Really easy to tell the results whether on history, screen or sample screen"*

*Field test user  
North America*

## AN OPERATOR CAN BE TRAINED TO USE IT IN **JUST 2 MINUTES!**





**REGISTER**

**MEASURE**

**RESULT**

**CLEAN**

## MAINTAIN TOP PERFORMANCE WITH DIGITAL SERVICES

Effective management of all your FoodScans, whether you have one or more than 20 different instrument configurations to back-up, monitor and update.

Get the benefits of fast service resolutions, when FOSS service technicians are able to access your instrument diagnostics remotely.

Secure a high up-time with proactive monitoring by FOSS experts.

Be certain that you have back-ups of your data and documentation for audits.

Increase efficiency by adjusting your calibrations when there is a statistical reason.

## THE DIGITAL SERVICES

### FossManager™

Configure, manage, and monitor your instrument network remotely from a central location.

### FossAssure™

Receive monthly instrument performance reports with potential issues and preventive measures to fix them.

### FossAssure™ Pro

FOSS experts monitor and validate the performance and calibration of your instruments.



## FoodScan™ 2 A VARIANT TO SUIT YOUR NEEDS





A VARIANT TO SUIT YOUR NEEDS

# FoodScan™ 2 Pro

- With touchscreen and inbuilt PC
- IP65 classification
- For use at-line in production environment

## SAMPLE & PARAMETERS

### CALIBRATIONS

**Global ANN calibrations** for Fat, Moisture, Protein, Collagen, Salt and Ash.

**PLS calibrations** for Saturated Fat, Carbohydrates\*, Energy\*, Sodium (NA-based) and aW (water activity)

(\* Calculated parameters)

### OTHER FUNCTIONALITIES

Colour Measurement (CIE L\*a\*b standard colour)

Batch Standardisation



## WHAT'S IN THE BOX?

FoodScan™ 2 Pro Meat Analyser

1 Sample cup holder

Free FossConnect subscription

Guides and manuals

iSiScan Nova software package (USB)

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**CHEESE** · Global ANN calibrations for Fat, Moisture, Protein, Salt and Total solids in Cheese · PLS calibrations for Saturated Fatty Acids in Cheese

**BUTTER & SPREADS** · Global ANN calibrations for Fat, Moisture, Salt, Solids non-fat and Total solids

**CULTURED AND FERMENTED PRODUCTS** (Yoghurt, Fresh and Cream cheese as well as Cream products) · Global ANN calibrations for Fat, Moisture, Protein and Total solids · PLS calibrations for pH in Fermented products

**FOSS**



ANALYTICS BEYOND MEASURE

## WHAT'S IN THE BOX?

FoodScan™ 2 Pro Dairy Analyser

1 Sample cup large

1 Sample cup medium

1 Cup holder

Free FossConnect subscription

Guides and manuals

ISIScan Nova software package (USB)

A VARIANT TO SUIT YOUR NEEDS

# FoodScan™ 2 LAB TS

- With touchscreen and inbuilt PC
- For use in laboratory or in protected environment

## SAMPLE & PARAMETERS

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# FoodScan™ 2 LAB

- Operated through an external standard PC with the FoodScan™ 2 software application
- For use in laboratory or in protected environment

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**FOSS**







ANALYTICS BEYOND MEASURE

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- 1 Sample cup medium
- 1 Cup holder
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- Guides and manuals
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# APPLICATION OVERVIEW

Application	Including
	<p>Butter &amp; Spreads</p> <p>Butter, salted and unsalted Dairy-based spreads</p>
	<p>Fermented products</p> <p>Yoghurt, Fresh cheese, Cream cheese and cream products</p>
	<p>Cheese</p> <p>Hard, semihard, soft and processed cheese</p>
	<p>Meat and Meat Products</p> <p>All kinds of raw and processed products</p>
	<p>Whey powder, Blue cheese, Fish</p>

## APPLICATION OVERVIEW

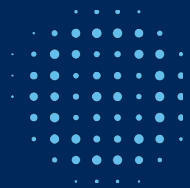
**FOSS**

Most ANN models are based on latest FoodScan variants  
 Fermented products is new, based on FSC database  
 New parameters are PLS, based solely on FSC2 data

	<b>Meat &amp; Meat Products</b>	<b>Cheese</b>	<b>Butter &amp; spreads</b>	<b>Fermented products</b>
Base package	Fat/CL Moisture Protein Collagen Salt (Cl)	Fat Moisture/TS Protein Salt Saturated Fat	Fat Moisture Salt SNF *	Fat Moisture/TS Protein pH
Add. Parameters (*calculated)	Saturated Fat Carbohydrates* Salt (Na) Ash aW (water activity)			



**SMOOTH TRANSFER**  
TO FoodScan™ 2



## SMOOTH TRANSFER TO FoodScan™ 2

- Compatibility between FoodScan™ and FoodScan 2
- Easy to move current product configuration and local calibrations straight to FoodScan 2 via FossConnect
- FOSS service engineer and application specialists get you going in less than a day
- Plug and play installation with easy to use software requires limited training
- Easy to introduce FoodScan 2 into an already existing network via FossConnect



**THANK YOU**