GAME CHANGING APPROACHES TO IMPROVE FOOD SAFETY AND QUALITY

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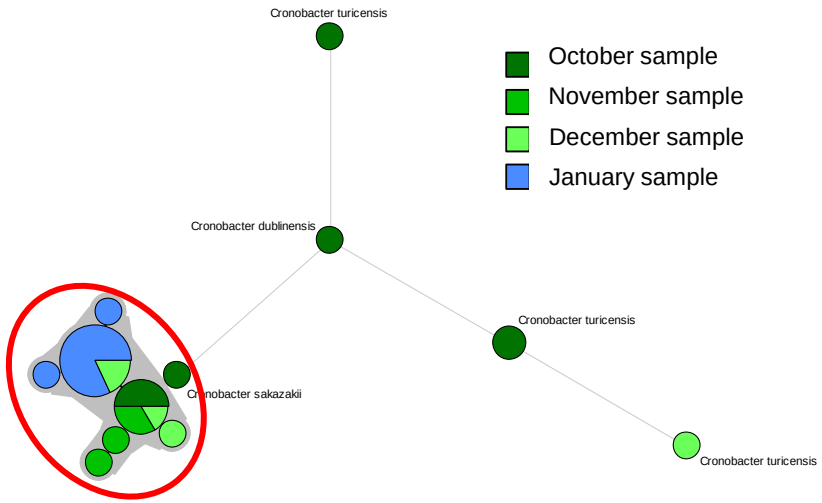
BIOMÉRIEUX

PIONEERING DIAGNOSTICS

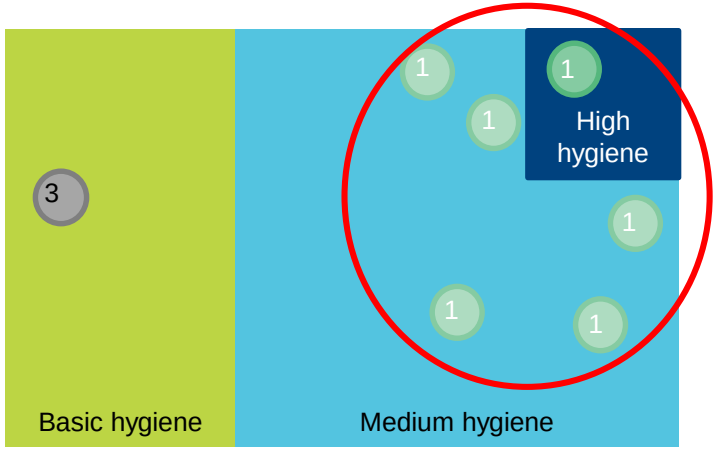
HOW TO BETTER ANTICIPATE RISK?

REAL LIFE EXAMPLE: CRONOBACTER IN PIF

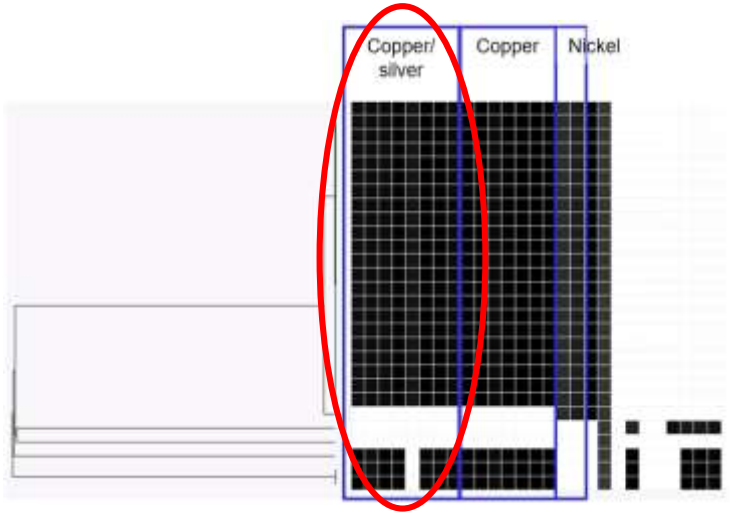
WHAT?



WHERE?

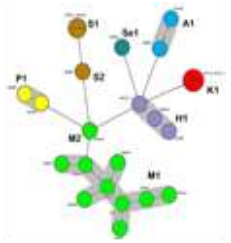


WHY?



MOLECULAR TOOLS: NEW INSIGHTS

WHOLE GENOME SEQUENCING



Is it the same issue or is it something new? (Relationships)

Where does it come from and how does it spread? (Transmission)

Why is it persistent? (Resistance)

METAGENOMICS

What is my product actual microbiome? (metagenomics)

Which ones cause product spoilage? (data science)

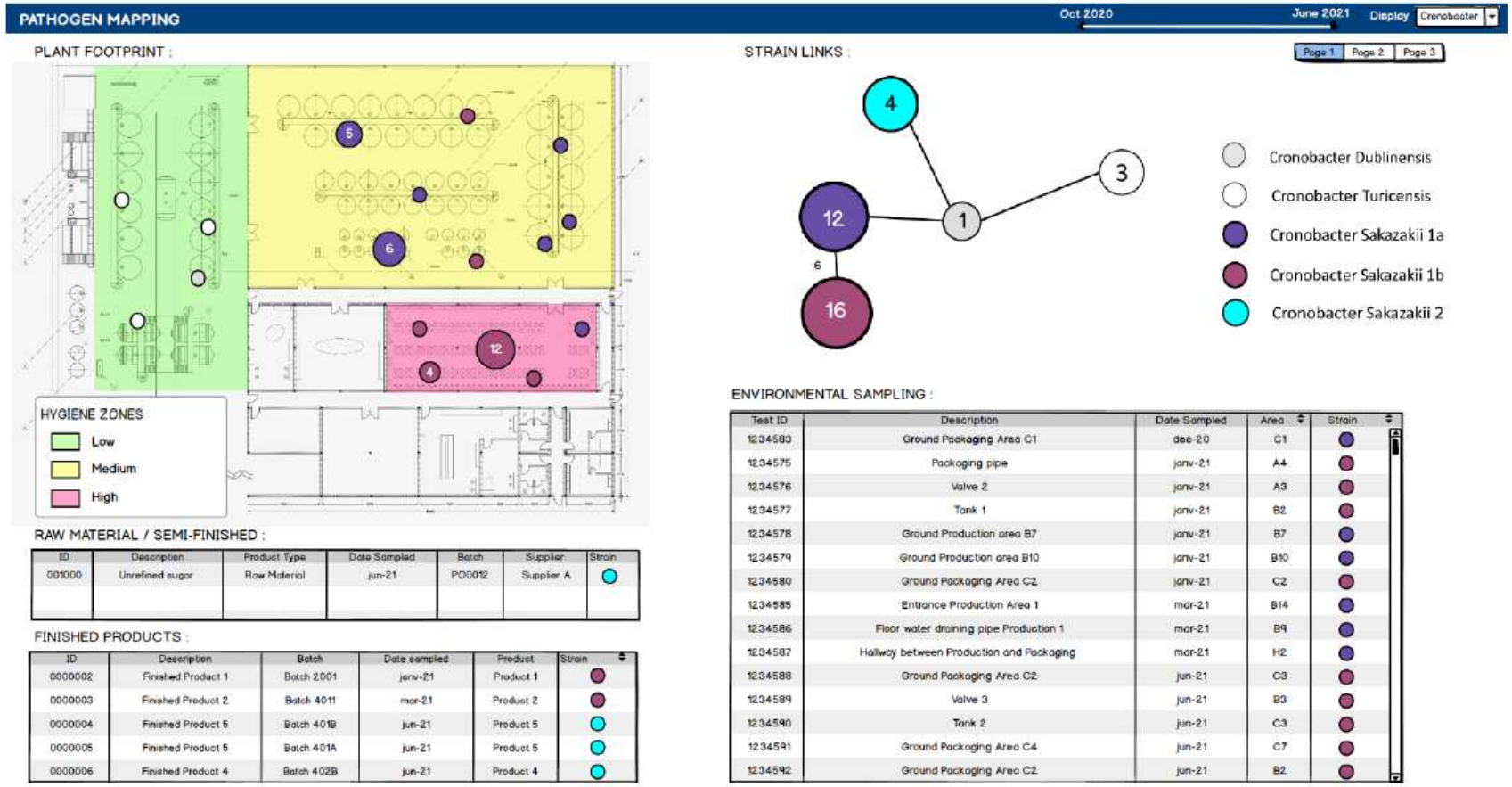
Can I screen them? (custom PCR test)

EXAMPLE 2: SPOILAGE IN BEVERAGE

BODYARMOR SuperDrink

PROBLEM	• Natural ingredients • Spoilage susceptibility • Limited shelf life • Limitaion of traditional methods
METHOD	• Metagenomics
SOLUTION & OUTCOME	• **Custom multiplex PCR assay** • **Targets only relevant to spoilers** • **Scrap reduction** • **Shelf life extension**

DIGITAL TOOLS: FROM INSIGHT TO ACTION



DATA SCIENCE TOOLS: CONNECTING THE DOTS

TESTING AND GENOMICS DATA

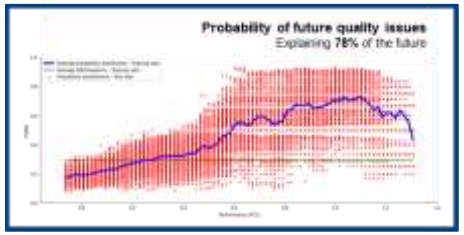
OTHER INTERNAL DATA

EXTERNAL DATA

What issue / challenge are we trying to solve?

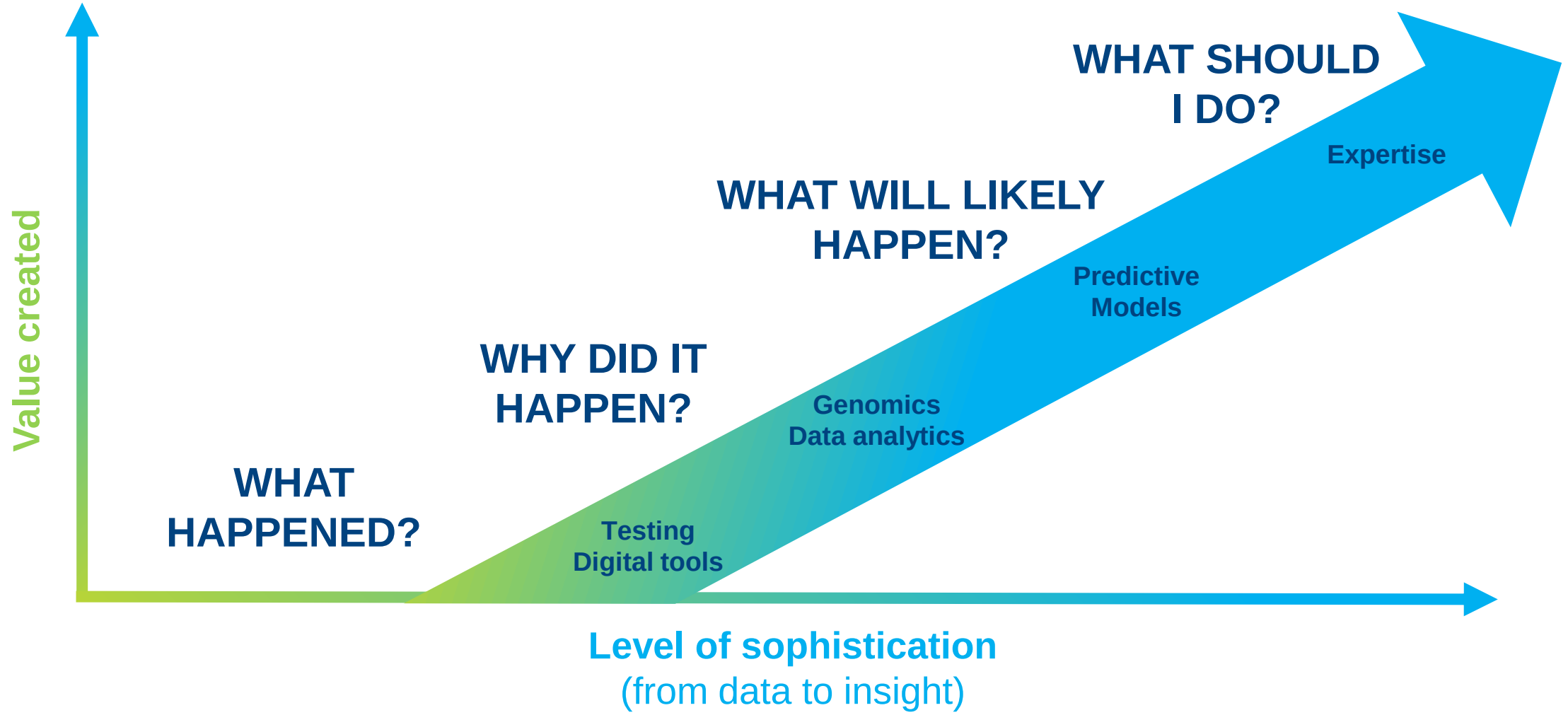
Framing the question

Data Collection & validation, Analysis & modeling



Predictive data model

CONLUSION: FROM DATA TO ACTIONNABLE INSIGHTS



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