Moments of truth across customer lifecycle

Customer Lifecycle

1. Aware	2. Buy	3. Implementation	4. Pay	5. Activation	6. Use	7. Seek Help	8. Loyalty

Touch points

Brand & Positioning **Marketing**	Sales & Contracting Process **Commercial team**	Welcome experience, build process & installation **Technical service**	Billing, payments **AP /Customer service**	Clinical validation, Training & Go-live **Commercial team**	System availability & Reliability/Order fulfillment **R&D/Ops**	Questions & Issue resolution **Customer service**	Renewal/up-sell/ cross-sell Management **Mkt/commercial**

Moments of truth

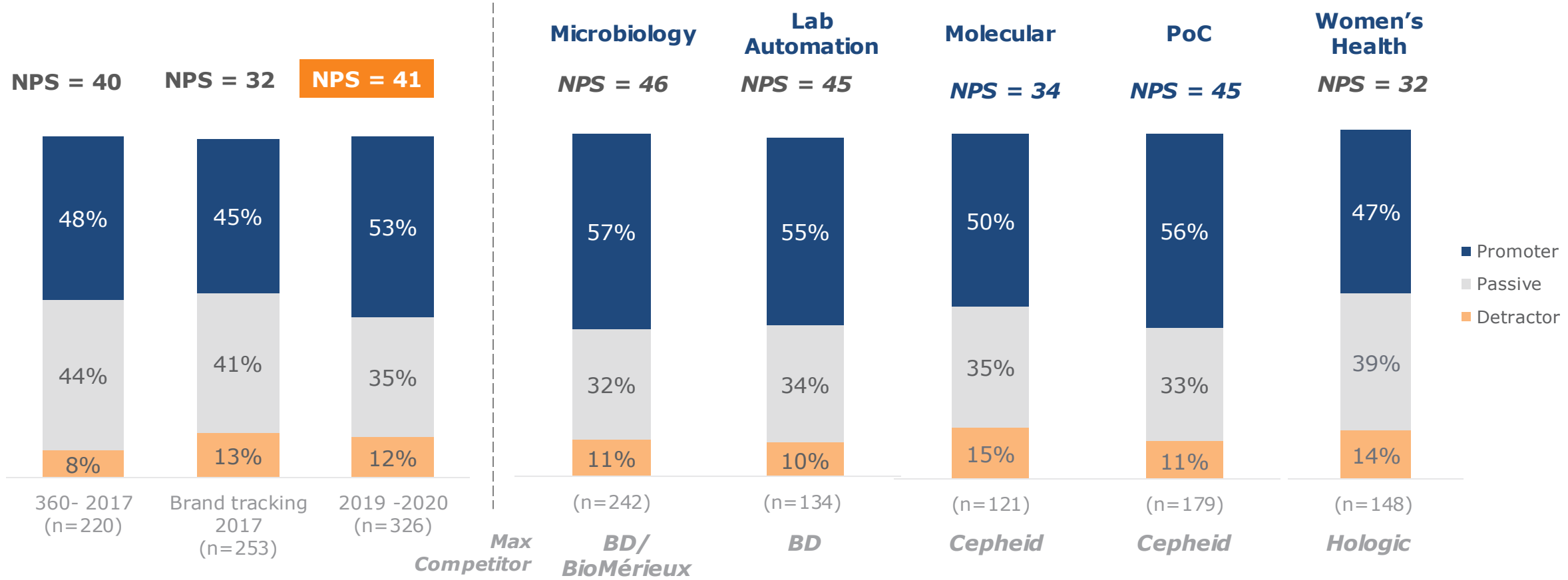| 1. Aware	2. Buy	3. Implementation	4. Pay	5. Activation	6. Use	7. Seek Help	8. Loyalty
1.1 Offering alternative options proactively when a product is reaching end of life/ discontinuation. 1.2 Working with me to identify clinical/operational/ diagnostic issues within my organization. 1.3 Providing easily accessible information about the portfolio of products and service offerings on the company`s website.	2.1 Providing me with the product trial /demonstration data necessary to evaluate product performance. 2.2 Providing a complete solution that will solve our identified clinical/operational/dia gnostic issues. 2.3 Providing comprehensive information to accurately understand the product value (e.g. benchmarks, KPIs). 2.4 Providing an easy contract renewal process. 2.5 Providing a clear explanation of what would be included in my service contract.	3.1 Having a seamless product installation process. 3.2 Offering support throughout the laboratory IS/IT integration process. 3.3 Providing a detailed technical infrastructure/IT compatibility analysis prior to purchase. 3.4 Providing a clear and accurate assessment of our internal resources needed for implementation. 3.5 Having project management implementation expertise. 3.6 Providing a detailed implementation plan prior to going live. 3.7 Providing accurate benefit and risk assessments.	4.1 Being transparent about contract terms and conditions. 4.2 Offering an easy product ordering process.	5.1 Ensuring our supply chain inventory and ordering systems are ready to go live 5.2 Having product training conducted by subject matter experts. 5.3 Providing expert support throughout the validation testing process. 5.4 Providing training materials through my preferred channel/method (e.g. online, in-person, apps). 5.5 Providing effective new product training materials to staff.	6.1 Being kept informed when product is on back order. 6.2 Delivering orders in full 6.3 Delivering orders on time. 6.4 Having products that deliver on the KPIs/outcomes that drove our purchase decision. 6.5 Offering additional support in the case of back orders, recalls and delays such as alternative products, helping pull back products. 6.6 Having products/solutions that are easy to use.	7.1 Customer support provides timely updates regarding issue resolution preventive maintenance, routine service and repairs. 7.2 Customer support representatives taking ownership when I call with a complaint. 7.3 Having a knowledgeable onsite technical support team. 7.4 Reaching a live technical support representative when I need one. 7.5 Customer support knowing my account/business relationship. (i.e. products used, purchase history, customer support issues, etc.). 7.6 Customer support representatives providing helpful responses in a way that I can understand. 7.7 Having a knowledgeable telephone technical support team. 7.8 Having the ability to immediately disseminate a recall to all my affected sites and clinical units.	8.1 Having a portfolio that offers great value for the money. 8.2 Having account managers that are knowledgeable about our entire relationship. 8.3 Proactively following up implementation with a product performance evaluation (e.g. KPIs, benchmarks). 8.4 Having account managers that understand our business objectives. 8.5 Having products with high reliability that meet uptime expectations.

BD

Net Promoter Score

NPS = 40   NPS = 32   **NPS = 41**

Microbiology — *NPS = 46*

Lab Automation — *NPS = 45*

Molecular — *NPS = 34*

PoC — *NPS = 45*

Women's Health — *NPS = 32*

	360- 2017 (n=220)	Brand tracking 2017 (n=253)	2019 -2020 (n=326)	Microbiology (n=242)	Lab Automation (n=134)	Molecular (n=121)	PoC (n=179)	Women's Health (n=148)
Promoter	48%	45%	53%	57%	55%	50%	56%	47%
Passive	44%	41%	35%	32%	34%	35%	33%	39%
Detractor	8%	13%	12%	11%	10%	15%	11%	14%

Max Competitor   *BD/ BioMérieux*   *BD*   *Cepheid*   *Cepheid*   *Hologic*

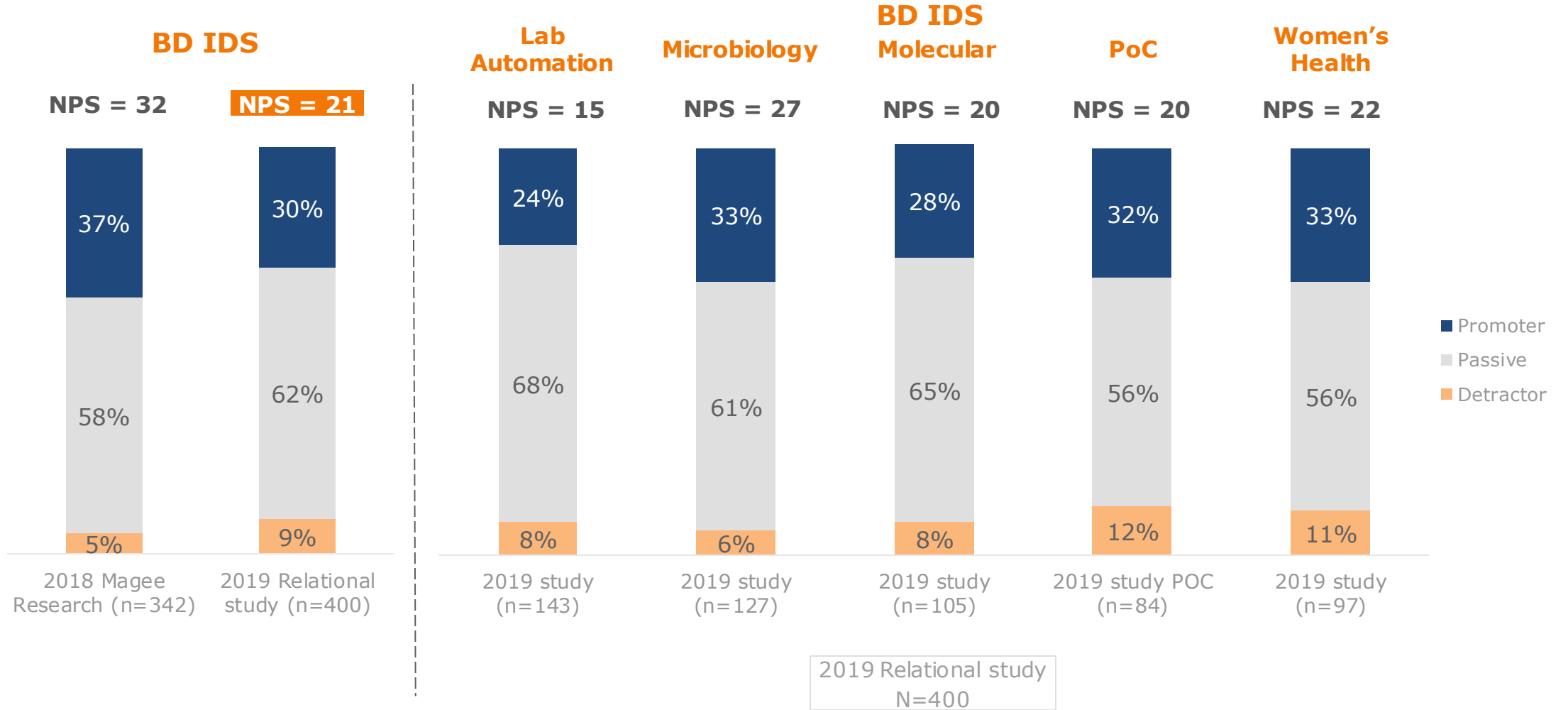■ Promoter
■ Passive
■ Detractor

2020 Relational study
N=600

[AQ02] How likely are you to recommend the companies listed below to your colleagues for your [Microbiology, Molecular, Women's Health, point-of-Care, Microbiology Lab Automation] diagnostic products or solutions?
Compared to 2017 BD DS - CX Workshop Deck (360) and Brand tracking 2017; due to difference in sample size, interpret as directional

Net Promoter Score

In EU, BD has a much lower NPS compared to US, predominately due to a higher percentage of passives

BD IDS

NPS = 32 **NPS = 21**

37%	30%
58%	62%
5%	9%

2018 Magee Research (n=342)   2019 Relational study (n=400)

Lab Automation

NPS = 15

24%
68%
8%

2019 study (n=143)

Microbiology

NPS = 27

33%
61%
6%

2019 study (n=127)

BD IDS Molecular

NPS = 20

28%
65%
8%

2019 study (n=105)

PoC

NPS = 20

32%
56%
12%

2019 study POC (n=84)

Women's Health

NPS = 22

33%
56%
11%

2019 study (n=97)

■ Promoter
■ Passive
■ Detractor

2019 Relational study
N=400

*Previous Research (Magee) was focused on capital versus consumable experience across BD, not specifically Diagnostic Systems. [AQ02] How likely are you to recommend the companies listed below to your colleagues for your [Microbiology, Molecular, Women's Health, point-of-Care, Microbiology Lab Automation] diagnostic products or solutions? Compared to 2018 BD DS - CX Workshop Deck *UK, DE, FR only*

What is driving our results?

Importance vs satisfaction gap

o Captured the most important experience attributes a customer expects a diagnostics provider to deliver (BD & competitor customers)

o Compared the importance with how satisfied the customers are with each attribute

o Obtained a gap

2019-2020 Relational study – Top gaps (satisfaction versus importance (overall IDS)

1 Products with high reliability that meet my uptime	2 Having products/solutions that are easy to use.	3 Reaching a live technical support representative when they need one	4 Having a knowledgeable telephone technical support team.
5 Orders on time and in full Being kept informed when product is on back order	6 Offering support through lab IS/IT integration process	7 Providing a detailed implementation plan prior to going live	8 Customer support provides timely updates regarding issue resolution…

Study key highlights

- **The product experience** The top gap areas are related to product reliability and easiness of use

- Order fulfillment, and the need of expert support are key drivers for our customers

- Proactive information and support during issue resolution, especially back orders is critical for our customers

BD

We can identify our priorities

Lifecycle	MoT	Description	Point of Care (Relative Importance Score — Indexed to 100)	BD	Abbott	BioMérieux	Cepheid	Quidel	Oxoid	Roche	Sekisui
		by Area									
Aware	1	Offering alternative options proactively when a product is reaching end of life/ discontinuation.	88	101	102	90	80	69	120	90	90
Aware	2	Working with me to identify clinical/operational/diagnostic issues within my organization.	99	115	112	108	120	120	120	111	120
Aware	3	Providing easily accessible information about the portfolio of products and service offerings on the company's website.	71	118	114	107	120	120	120	113	112
Buy	4	Providing me with the product trial (trial within our institution)/demonstration data necessary to evaluate product performance.	91	110	105	103	96	84	111	96	120
Buy	5	Providing a complete solution that will solve our identified clinical/operational/diagnostic issues.	102	111	90	120	120	92	103	83	112
Buy	6	Providing comprehensive information to accurately understand the product value (e.g. benchmarks, KPIs).	72	118	89	120	120	93	114	80	96
Buy	7	Providing an easy contract renewal process.	81	116	115	107	107	107	120	108	107
Buy	8	Providing a clear explanation of what would be included in my service contract.	95	118	120	100	100	120	120	103	90
Implementation	9	Having a seamless product installation process.	105	118	103	111	120	120	120	120	120
Implementation	10	Offering support throughout the laboratory IS/IT integration process.	113	108	102	110	108	84	120	92	111
Implementation	11	Providing a detailed technical infrastructure/IT compatibility analysis prior to purchase.	93	111	95	120	110	77	105	98	99
Implementation	12	Providing a clear and accurate assessment of our internal resources (people, time and money) needed for implementation.	82	106	92	120	120	96	120	88	80
Implementation	13	Having project management implementation expertise.	101	114	110	120	103	102	112	98	120
Implementation	14	Providing a detailed implementation plan prior to going live.	97	102	102	84	120	86	80	98	90
Implementation	15	Providing accurate benefit and risk assessments.	83	104	109	120	96	100	108	93	107
Pay	16	Being transparent about contract terms and conditions.	103	113	98	120	100	80	103	98	120
Pay	17	Offering an easy product ordering process.	80	114	105	100	120	112	120	120	120
Activate	18	Ensuring our supply chain inventory and ordering systems are ready to go live (including distributor)	93	112	115	107	120	94	110	112	96
Activate	19	Having product training conducted by subject matter experts.	114	116	108	120	120	110	100	115	120
Activate	20	Providing expert support throughout the validation testing process.	115	116	94	120	120	108	120	113	108
Activate	21	Providing training materials through my preferred channel/method (e.g. online, in-person, apps).	98	107	110	108	103	90	107	104	96
Activate	22	Providing effective new product training materials to staff.	122	113	112	108	108	108	99	111	120
Seek Help	23	Customer support provides timely updates regarding issue resolution, preventive maintenance, routine service and repairs.	114	113	101	110	113	106	108	104	104
Seek Help	24	Customer support representatives taking ownership when I call with a complaint.	105	109	100	100	120	110	88	108	96
Seek Help	25	Having a knowledgeable onsite technical support team.	96	112	104	90	120	88	120	107	120
Seek Help	26	Reaching a live technical support representative when I need one.	124	110	103	106	109	98	110	98	112
Seek Help	27	Customer support knowing my account/business relationship (ie. products used, purchase history, customer support issues, ...	86	115	96	96	120	80	120	104	100
Seek Help	28	Customer support representatives providing helpful responses in a way that I can understand.	99	111	112	106	120	98	103	107	104
Seek Help	29	Having a knowledgeable telephone technical support team.	124	110	110	120	120	77	105	100	111
Seek Help	30	Having the ability to immediately disseminate a recall to all of my affected sites and clinical units.	73	113	113	86	120	100	120	114	120
Use - ordering	31	Being kept informed when product is on back order.	105	104	97	80	110	80	110	103	120
Use - ordering	32	Delivering orders in full.	112	112	114	113	117	112	105	109	112
Use - ordering	33	Delivering orders on time.	118	113	107	110	117	106	110	106	109
Use - ordering	34	Having products that deliver on the KPIs/outcomes that drove our purchase decision.	94	115	88	120	94	88	120	92	86
Use - ordering	35	Offering additional support in the case of back orders, recalls and delays such as alternative products, helping pull back prod...	90	110	99	94	120	90	120	93	120
Use - ordering	36	Having products with high reliability that meet uptime expectations.	177	113	114	110	113	112	108	109	101
Use - ordering	37	Having products/solutions that are easy to use.	121	111	103	106	105	106	118	107	109
Loyalty	38	Having a portfolio that offers great value for the money.	112	108	80	120	94	83	102	86	114
Loyalty	39	Having account managers that are knowledgeable about our entire relationship.	86	102	120	120	100	107	112	105	100
Loyalty	40	Proactively following up implementation with a product performance evaluation (e.g. KPIs, benchmarks).	83	107	104	120	90	120	90	106	99
Loyalty	41	Having account managers that understand our business objectives.	85	107	99	80	110	69	88	110	108

Click here for complete view

Identifying your segments

One size does not fit all

Traditional and non-traditional testing settings have different needs across the customer lifecycle

Traditional B2B   [TBD - Market opportunity]

Non- traditional B2C"ish"   [TBD - Market opportunity]

Traditional - Acute
- ED/ICU Physician
- Infectious Disease Physician
- Hospital General Physician
- **Lab Director**
- **Hospital Medical Director**
- POCC (Point of Care Coordinator) Hospital/IDN
- **Lab Tech (runs the test)**
- Nurse (runs the test)
- Director of Procurement/purchasing
- Antimicrobial Stewardship (AMR) Director/Leader
- Infection Control Director/Leader

Traditional - Non-Acute:
- General Practitioner- small practice
- Pediatrician
- **Urgent Care Physician**
- **STI Clinic Physician**
- STI Clinic Medical Director
- Public Health Clinic Director (can be all DX testing, not just STI)
- University Health Medical Director/Lead Physician
- Women's Health- OB/GYN Physician, Nurse Practitioner
- Pharmacist (Retail Pharmacy and mom and pop Pharmacy)
- POCC for small physician's office practice
- Lab Director for small physician's office practice (non-acute setting)
- **Medical assistant/tech (runs the test)**
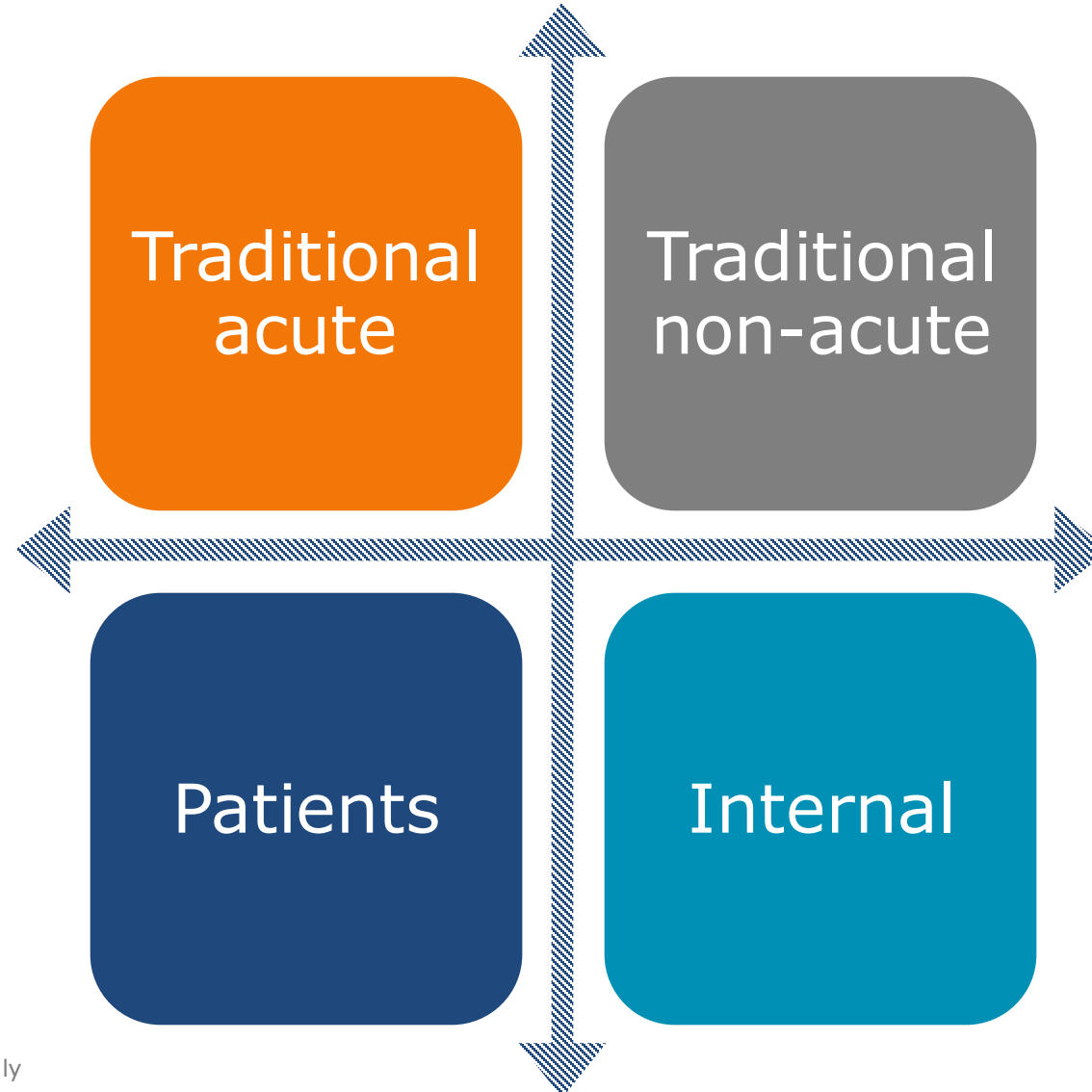- Nurse (runs the test)

Non-traditional:
- HHS- Nursing Home Medical Director or C-Suite Medical Staff

Patients:
- Patient seeking out a respiratory tract infection test
- Patient seeking out STI testing

Personas to be developed

- Lab director hospital
- Lab tech
- Pediatrician

Traditional acute

Traditional non-acute

Patients

Internal

- Medical assistant
- STD clinic nurse
- Medical director STI clinic – Public health clinic
- Urgent care doctor

- OB-Gyn patient
- Pediatric flu patient-Father

- FSE –TSS BD

Confidential—For Internal Use Only

BD

Personas templates

BD

Management and decision maker
IDN/Large hospital

Dr. Carmen Lee
- Molecular lab director,
- VA Medical
- Center Texas

"As a lab director, my responsibility is to ensure that every test done at the lab is accurate."
"I am considering 3D printing to supplement our dwindling swab supply"

My measurements of success

- Speed of results
- Results accuracy
- ROI on capital investments and operating margins
- Compliance audit-pass rates
- Clinician/patient satisfaction
- **Lab efficiency**

Hi-level steps in the experience with Blood culture solutions

| 1.0 AWARE | 2.0 BUY | 3.0 IMPLEMENT | 4.0 PAY | 5.0 ACTIVATE | 6.0 USE | 7.0 SEEK HELP | 8.0 LOYALTY |

| Search for use cases to improve her lab ops | Compare and select a solution | Get ready for implementation and activation | Maximize utilization and outcomes | Troubleshoot and escalate systemic issues |

- I am able to read use cases from best in class labs
- I receive whitepapers from manufacturers with relevant info
- Simple and effective purchase process

- Clear and accurate resources and plan for implementation
- Get support through LIS integration
- Easy to use equipment and effective workflow

- Proactive maintenance
- First contact resolution
- Communication

- Google, BD.com, Colleagues, etc.

- BD customer portal for implementation (CEM)
- Equipment app

- Equipment app
- Help Lighting
- Phone and field support

Pain points

- Optimizing staffing to maximize productivity
- Contracts
- Equipment purchases
- Service contracts
- Documentation
- Establishing workflows
- Quality control
- Might complete bench work when short staffed

Traditional non-acute
Retail Clinic decision maker

Edith Nixon, MSN,FNP-BC
- Vice-president patient care delivery
- Minute Clinic - CVS
- Rhode Island -US

"Patient samples collected at our drive-thru testing sites are sent offsite to independent, third-party labs. The increase in cases of COVID-19 in certain areas of the country is causing extremely high demand for tests resulting in backlogs for our lab partners and delays in the processing of patient samples. Due to these factors, it may now take 6-10 days for people to receive their results

My measurements of success

- o Speed of results
- o Results accuracy
- o ROI on capital investments and operating margins
- o Compliance audit-pass rates
- o Clinician/patient satisfaction

Hi-level steps in the experience with rapid test solutions

1.0 AWARE	2.0 BUY	3.0 IMPLEMENT	4.0 PAY	5.0 ACTIVATE	6.0 USE	7.0 SEEK HELP	8.0 LOYALTY

Search for use cases to improve her ops	Compare and select a solution	Get ready for implementation and activation	Maximize utilization and outcomes	Troubleshoot and escalate systemic issues

expectations

- I am able to read use cases from best-in-class labs
- I receive whitepapers from manufacturers with relevant and quantitative info
- Simple and effective purchase process

- Clear and accurate resources and plan for implementation
- Easy to use equipment and effective workflow

- Proactive maintenance
- First contact resolution
- Communication

Tools and sources

- Google, BD.com, Colleagues, etc.

- TBD

- TBD

Pain points

- o Optimizing staffing to maximize productivity
- o Contracts
- o Equipment purchases
- o Service contracts
- o Documentation
- o Establishing workflows
- o Quality control
- o Lack of qualified personnel and turnover

Persona and digital campaign customer journey
Air Cover digital campaign for the c-suite

Dr Ernest Charles, 52
Chief Medical Operations Officer
Tenet Healthcare
Dallas, TX

"In my system, surgeons are seeing patients and answering patient questions through electronic media. They are still working and having both virtual visits and responding in a variety of ways to help our patients stay healthy" result of hospital acquired infections (HAI) keep me awake at night. "
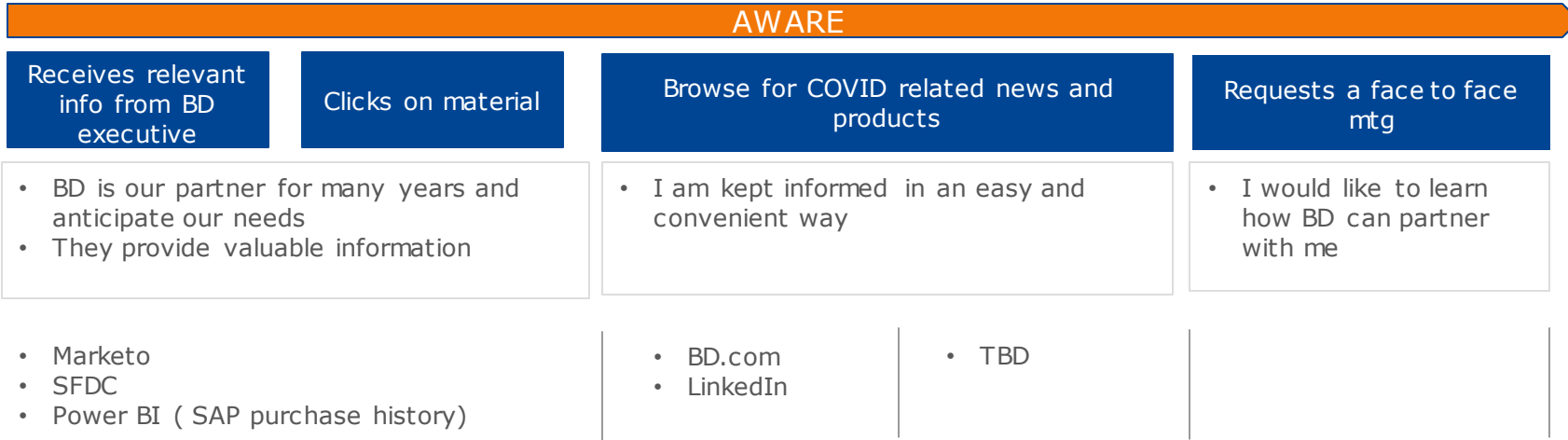
My measurements of success

- COVID-19 will not impact or reduce the patient encounters
- Quality and safety
- Be in the US news and world report
- Decrease financial impact during pandemic

Steps in the digital journey

AWARE

Receives relevant info from BD executive	Clicks on material	Browse for COVID related news and products	Requests a face to face mtg
• BD is our partner for many years and anticipate our needs • They provide valuable information		• I am kept informed in an easy and convenient way	• I would like to learn how BD can partner with me

Needs & expectations

Digital tools

• Marketo • SFDC • Power BI (SAP purchase history)		• BD.com • LinkedIn	• TBD

Content ideas

- Based on the wants and needs on the other personas as key stakeholders for Dr. Charles
- Statistics/HEOR information
- Infographics on post pandemic trends for hospitals

Personas submitted by BUs - Consumables
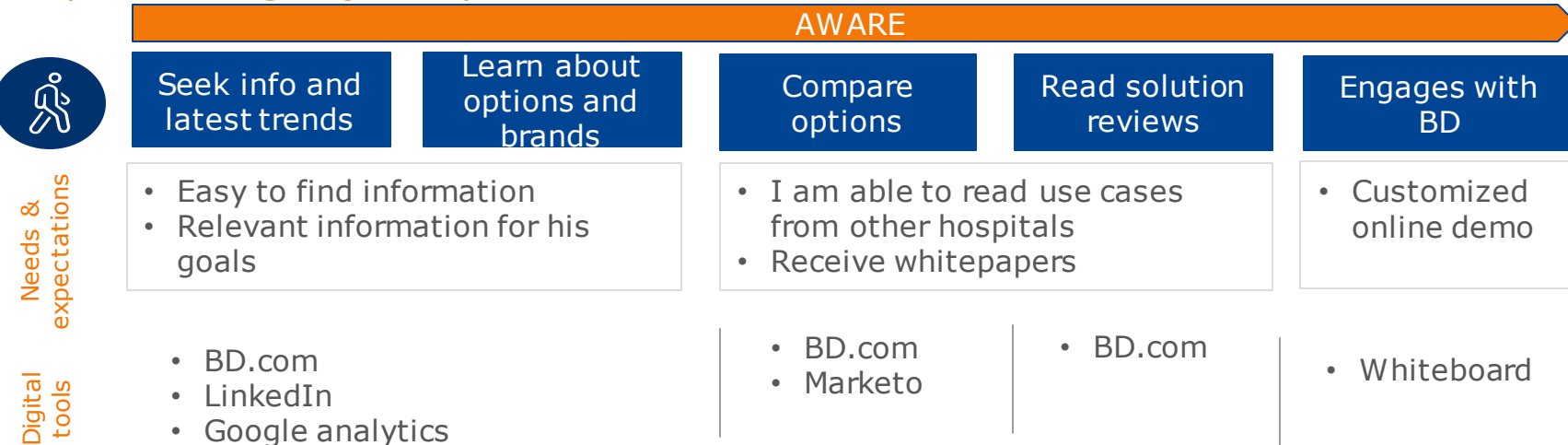
Interventional segment

Dr. Bruce Chang, 42
- Robotics, general surgeon
- Teaching hospital
- New York City

*"One of my **main pressure points is time**. My Chief and other OR administration monitor our surgery durations closely and are always trying to find ways to speed up our room times"*

My measurements of success

- I follow my patient's post-op very closely to **avoid**:
  - **Recurrences**
  - Infections

- Patient satisfaction

Steps in the digital journey

AWARE				
Seek info and latest trends	Learn about options and brands	Compare options	Read solution reviews	Engages with BD

Needs & expectations

• Easy to find information • Relevant information for his goals		• I am able to read use cases from other hospitals • Receive whitepapers	• Customized online demo

Digital tools

• BD.com • LinkedIn • Google analytics		• BD.com • Marketo	• BD.com	• Whiteboard

Product example: Angioplasty – Drug Coated Balloons

Deliver More with the Only 018 DCB*
Learn more about the first and only 018 DCB*
LUTONIX 018 Drug Coated Balloon PTA Catheter

Medtronic

PHILIPS Healthcare

Personas submitted by BUs - Consumables
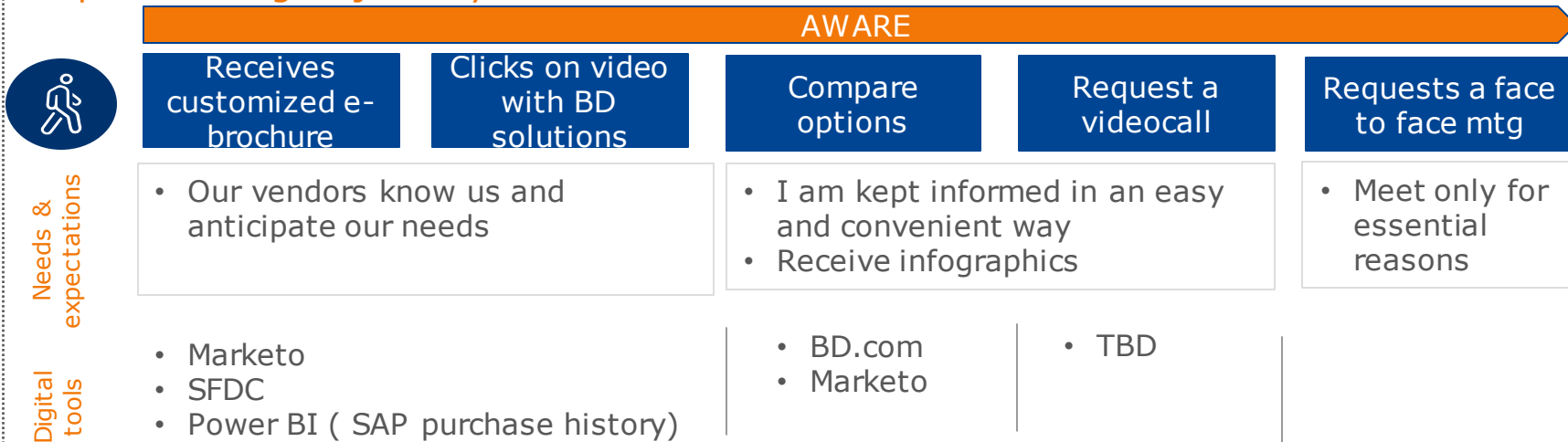## Medical segment

Nicole Smith, 55
- Chief Nursing Officer
- Cleveland Clinic
- Cleveland, OH

"My role is diverse and very stressful. I worry about staffing, employee safety and satisfaction and patient care. Issues such as the lack of good resources, fair compensation, and reimbursement penalties as a result of hospital acquired infections (HAI) keep me awake at night. "
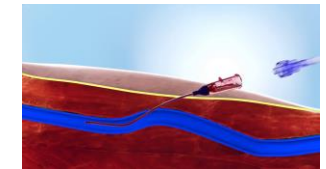
My measurements of success

- Decrease HAI
- Staff training and retention
- Financial efficiency

Steps in the digital journey

AWARE

Receives customized e-brochure	Clicks on video with BD solutions	Compare options	Request a videocall	Requests a face to face mtg
• Our vendors know us and anticipate our needs		• I am kept informed in an easy and convenient way • Receive infographics		• Meet only for essential reasons
• Marketo • SFDC • Power BI (SAP purchase history)		• BD.com • Marketo	• TBD	

Needs & expectations

Digital tools

Product example: AccuCath® Ace

Can we offer her a solution for her overall needs?

Submitted by Stacy Boothe, WW Associate Director, Digital Marketing

15

Personas submitted by BUs - Consumables

Life Science – Specimen Management
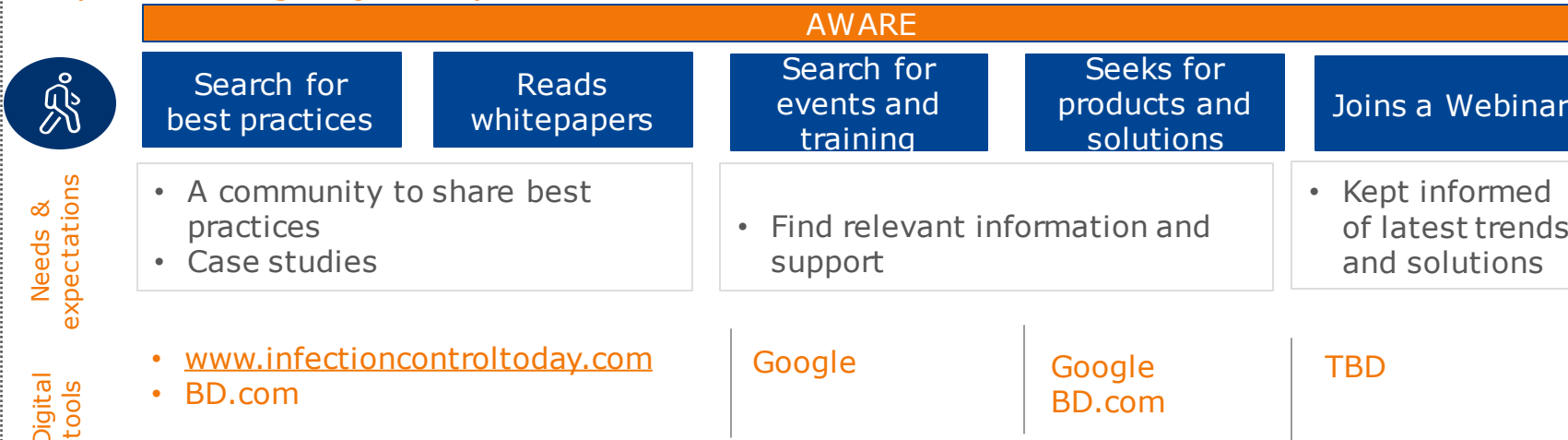
Sally Smith, 38
- Infection control manager
- Leading academic medical center
- Baltimore, Maryland

"The inability to consider change is often driven by a myopic view of your environment that makes the juice appear as if it's not worth the squeeze."

My measurements of success

- Reduced infection rates
- Decreased length of stay (LOS) and mortality
- Reduced antibiotic use and associated expenses

Steps in the digital journey

AWARE				
Search for best practices	Reads whitepapers	Search for events and training	Seeks for products and solutions	Joins a Webinar

Needs & expectations

- A community to share best practices
- Case studies

- Find relevant information and support

- Kept informed of latest trends and solutions

Digital tools

- www.infectioncontroltoday.com
- BD.com

Google

Google
BD.com

TBD

Product example:

Submitted by Jeff Ezell, Regional Business Manager IDS

Michael Roberts

DECISION MAKER

# of facilities
1 ▬▬▬▬ 500

 # residents
1 ▬▬▬▬ 10,000

 # Employees
1 ▬▬▬▬ 10,000

My stakeholders

Me → LT
Facilities Admin
Clinical services

My KPIs
- P&L and ROI
- Facilities operational performance
- Regulatory compliance

Access to technology at workplace
- YES
- Internet savvy
- High level: management of digital tools related to my job
- Desk job

What motivates me?
- Residents safety
- Facilities performance
- Bring financial benefit to my organization that can be reflected in the P&L . This could be through improvements (inventory, value, service) or price cuts

Digital channels I use

LinkedIn   Twitter

Other channels:
- Business magazines
- Industry magazines
- E-blast

" Effective communications with all the facilities leaders are key to achieve great performance"

Age: 50
Job: COO Nexium Health

25 years of long term care experience as an executive and clinician with a solid background in financial analysis, knowledge of federal and multi-state regulatory function and compliance coupled with a strong clinical management expertise. He successfully balances all aspects of operations to achieve consistent financial, regulatory and stakeholder desired outcomes. Michael is well-known as a devoted patient advocate and a leader for culture change in long term care. He has established Nexium as a leader in LTC performance, reform and patient-centered care.

What frustrates me?
- Quality and Supply issues; when a vendor does not comply with the commitment of delivery on time
- When a product quality constantly fails
- Inability to measure my results due to lack of reliable information
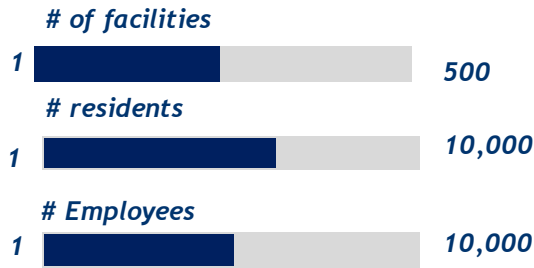
Message delivery
- Factual information
- Show how BD can help him to achieve his goals (P&L impact)
- Speak with data
- Data information supported by numerical results
- Data based on local market is a PLUS
- Can manage complex information
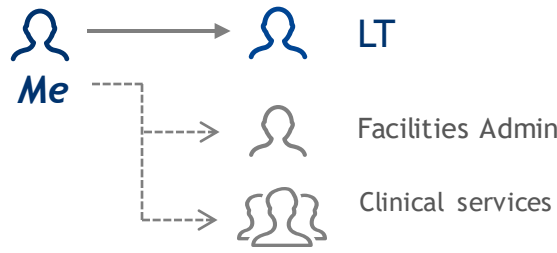
BD

INFLUENCER

# of facilities
1 ▬ 500

 # residents
1 ▬ 10,000

 # Employees
1 ▬ 10,000

My stakeholders

Me → COO
Local government
Clinical services

My KPIs
- Staff to resident ratio
- Staff turn over
- Regulatory compliance
- Medication errors and accidents

Access to technology at workplace
- YES
- Internet savvy
- High level: management of digital tools related to my job
- Desk job

What motivates me?
- Residents safety and health
- Facilities performance
- Satisfaction

Digital channels I use

LinkedIn **in**   *Twitter* 🐦

Other channels:
- Business magazines
- Industry magazines
- E-blast

" Keeping the residents and the staff safe is my main priority as well as keeping loved ones involved and updated"

Susan Rodriguez

Age: 35

Job: Facility director – Garden Terrace

Susan is the ultimately responsible for all patient care and business decisions. Manage the day-to-day operations of the facility and keep the organization on track for its long term goals and mission
Coordinate and provide leadership to each clinical, managerial, and custodial team, and ensure that they work together effectively
Ensure the facility operates in compliance with all local, state, and federal regulations
Coordinate with clinical staff to ensure residents' individual care plans are being followed
Provide regular safety and compliance training

What frustrates me?
- Reporting done manually to ensure we comply with federal and state regulations
- Upset families that can't visit their loved ones
- Staff turnover
- Inefficiencies
- Lack of information to do my job
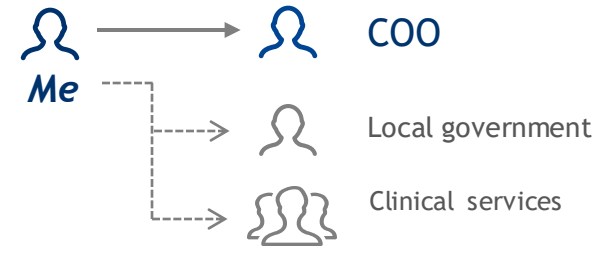
Message delivery
- Factual information
- Show how BD can help her to achieve his goals (P&L impact)
- Data based on local market is a PLUS
- Can manage complex information

BD

18

# of facilities

1 ▮▮ 500

 # residents

1 ▮▮ 10,000

 # Employees

1 ▮▮ 10,000

My stakeholders

Me → Facility Director

● ---> Physicians

● ---> Patients and patient's relatives

"I love serving people in whatever way I can"

Nathalie Davis

Age: 37

Job: Nurse Manager - Merry hearts LTC

Nathalie specializes in LTC
Nathalie cares for her patients.
Nathalie manages multiple tasks related to patient care
Nathalie collaborates and communicates between all medical staff to deliver excellent care
Nathalie keeps abreast of new technologies and procedures.

My KPIs

- Provide the fastest and efficient care
- Patient experience and patient satisfaction
- No accident targets (zero NSI)
- Adherence to facility protocols

What motivates me?

- Help my patients recover from illness
- Make a positive difference for my patients
- Keep abreast of new technologies and procedures
- My job offers me endless opportunity to learn and grow

What frustrates me?

- Workload can be extremely challenging.
- Blood collection sticks, fishing and re-sticks negatively impact patient experience
- Delays in reporting test results
- Specimen rejection by the laboratory/POC re-test.
- Poor communication between nursing and phlebotomy results in double sticks, sample collection delays and missed draws.
- Lot of paper work that takes time away from the patient.
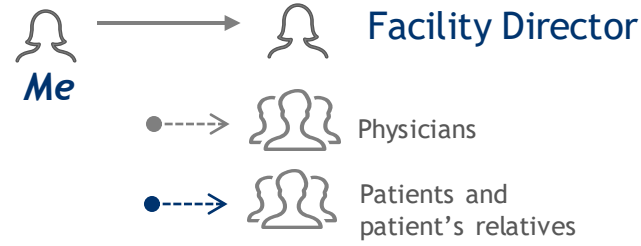
Access to technology at workplace

- YES
- Internet savvy
- High level: management of digital tools related to my job
- Desk and bed side job

Digital channels I use

Other channels:
- Professional magazines
- Nurse Journals
- Alumnus associations

BD

Clinical lab specialists – IDS and BDB
IDN/Large hospital

Teka Smith, 28
- Clinical Lab Specialist (also known as **Lab technician**)
- University of Maryland medical center
- Baltimore, Maryland

"I need to make sure my assigned tasks are completed on time and with 0 errors, the equipment can be a help but sometimes is a pain as I don't have feedback to be sure everything is going well"

My measurements of success

- o Results must be accurate, timely, and informative
- o Fully trained on procedures and practices
- o Timely resolution of any issue to avoid workflow interruptions

Hi-level steps in the experience with Blood culture solutions

| 1.0 AWARE | 2.0 BUY | 3.0 IMPLEMENT | 4.0 PAY | 5.0 ACTIVATE | 6.0 USE | 7.0 SEEK HELP | 8.0 LOYALTY |

Search for lab best practices	Receive training and support implementation/modify and test workflow during implementation and activation	Maximize utilization and outcomes	Reach out for help to avoid interruptions
• Having best practices latest trends	• Clear and accurate resources and plan for implementation • Get support through LIS integration • Easy to use equipment and effective workflow		• If unable to resolve/trouble shoot an issue, I call the BD help line • I prefer a digital channel
• Google, BD.com, Colleagues, etc.	• Training tutorials, communities, co-workers, managers/supervisors • Equipment app		• Help Lighting • Phone and field support

Pain points

- o Lack of clear instructions of processes/training
- o Lack of feedback from an instrument to have confidence to walk away
- o Ease of use of instrument
- o Hands on time, both physical and UI iterations
- o Security of samples
- o Integration of new technologies into their existing workflow

Clinical lab specialists – IDS and BDB
Reference Lab

Lukas Müller, 30
- Clinical Lab Specialist (also known as **Lab technician**)
- MLM Medical Labs GmbH
- Berlin, Germany

"I need to make sure my assigned tasks are completed on time and with 0 errors, the equipment can be a help but sometimes is a pain as I don't have feedback to be sure everything is going well"

My measurements of success

- o Results must be accurate, timely, and informative
- o Fully trained on procedures and practices
- o Timely resolution of any issue to avoid workflow interruptions

Hi-level steps in the experience with Blood culture solutions

1.0 AWARE	2.0 BUY	3.0 IMPLEMENT	4.0 PAY	5.0 ACTIVATE	6.0 USE	7.0 SEEK HELP	8.0 LOYALTY

Search for lab best practices	Receive training and support implementation/modify and test workflow during implementation and activation	Maximize utilization and outcomes	Reach out for help to avoid interruptions
• Having best practices latest trends	• Clear and accurate resources and plan for implementation • Get support through LIS integration • Easy to use equipment and effective workflow		• If unable to resolve/trouble shoot an issue, I call the BD help line • I prefer a digital channel
• Google, BD.com, Colleagues, etc.	• Training tutorials, communities, co-workers, managers/supervisors • Equipment app		• Help Lighting • Phone and field support

Pain points

- o Lack of clear instructions of processes/training
- o Lack of feedback from an instrument to have confidence to walk away
- o Ease of use of instrument
- o Hands on time, both physical and UI iterations
- o Security of samples
- o Integration of new technologies into their existing workflow

Dennis

Age: 55+

Job: Lab Director

Dennis is a pathologist with a MD degree.
Dennis would like to showcase his lab as the best in class and identify ways to expand lab services.
Dennis would like to bring outreach/molecular/genetic testing to the lab to increase revenues.
Dennis likes to publish in respected journals
Dennis is interested to cut waste, redundancies and improve system efficiencies.
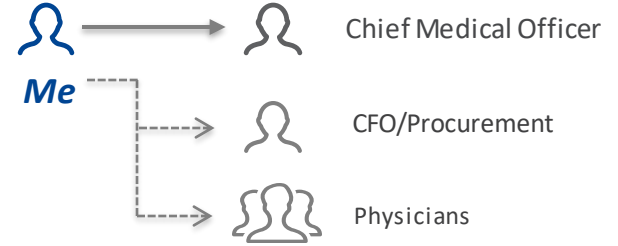Dennis likes to develop and retain top talent

A recognized clinician who has built state of the art lab that delivers superior results

Product user

1 ▬ 5

Budget Management

1 ▬▬▬▬ 5

Purchase decision-maker

1 ▬▬▬▬ 5

DECISION MAKER

My stakeholders

Me → Chief Medical Officer

CFO/Procurement

Physicians

My KPIs

- Deliver accurate, reliable results on time.
- Use metrics to drive patient outcomes.
- Reduce costs through operational efficiency and test utilization stewardship.
- Expand lab services and deliver value.
- Positively impact lab's reputation.

What motivates me?

- Introduce newer tests to the lab such as molecular/genetic testing.
- Publish my work in respected journals
- Become a profit centre - Identify ways to expand lab services to increase revenues
- Improve system efficiencies

What frustrates me?

- Redundant tests are repeatedly ordered.
- Real lack of appreciation regarding the complexity of laboratory testing.
- Budget cuts
- Less visibility in the organization.
- Push to move towards point of care testing by ED and critical care units.

Access to technology at workplace

- YES
- Medium level: management of digital tools related to my job
- I spend a good part of my job at the desk (meeting)

Digital channels I use

LinkedIn   Twitter   YouTube

Others channels:
- E-blast
- Professional associations
- Industry magazines
- Industry leader events, congress, talks

My Social style

Level of empathy

1 ▬▬ 5

Require advanced detail, support data

1 ▬▬▬▬ 5

My social style is closer to which of the following:

Analytical ▬   **amiable** ▬

BD

Dennis

Age: 55+
Job: Lab Director

Message delivery

- Goal-oriented information…how BD can impact his KPIs
- Proof of 'what others are doing' could help him to take decisions faster as his reputation is on the top of his agenda
- Factual information with clear outcomes
- Data based on local market is a PLUS
- Can manage complex information

My KPIs

- **Deliver accurate, reliable results on time.**
- **Use metrics to drive patient outcomes.**
- **Reduce costs through operational efficiency and test utilization stewardship.**
- **Expand lab services and deliver value.**
- **Positively impact lab's reputation.**

PAIN POINTS

Reduce costs while maintaining high quality along with increased test volumes.

Lack of appreciation regarding the complexity of laboratory testing

Risk of outsourcing and budget cuts

DECISION MAKER

What is the desired behaviour?

- **Better communicate value of lab testing to overall hospital goals**
- **Elevate "cost" to total cost of ownership and focus on system efficiencies/outcomes instead of product cost**
- **Recognize BD Vacutainer is the gold standard partner - Offers services, products and solutions that can help improve outcomes while reducing total cost for the lab**

Value Proposition

Safety engineering devices

Section to be finalized by messaging team

Evidence

Example:
- Customer testimonial
- Related to patient satisfaction
- NSI the importance of reporting

Section to be finalized by evidence team

Sales Tools

Example:
- Training:
  - E-Learning
  - On-hands training
  - Expert video
- Product usage posters for facilities
- Sales tool
- Sales tool
- Sales tool

Total Solution

Example:
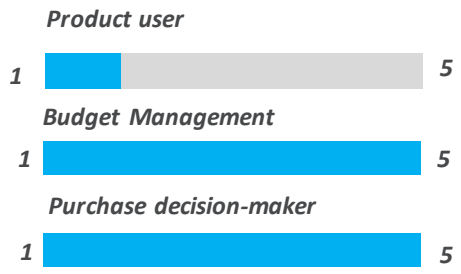- Chemistry Tubes + UltraTouch™ + PAQC

Product user

1 ▭▭ 5

Budget Management

1 ▭▭▭▭ 5

Purchase decision-maker

1 ▭▭▭▭ 5

DECISION MAKER

My stakeholders

Me → Lab Director

⤷ Medical Director

⤷ Physicians

My KPIs

Serve the hospital need by providing quality lab results on time everyday:
- Lab metrics: TAT, false positives, re-testing, re-collection (contamination, transportation)
- Manage lab resources: human resources, product, stock, budget
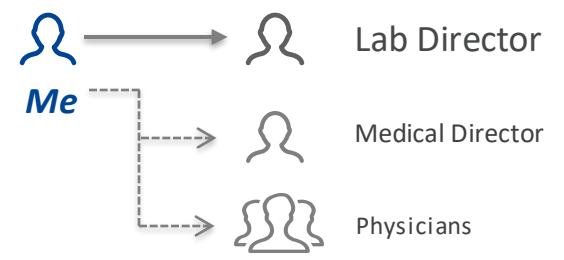- Compliance with local regulations

Access to technology at workplace
- YES
- Moderate usage of digital tools related to my job
- My job is 50/50 … tasks related to admin and supporting lab day-to-day operations

What motivates me?
- Being recognized as an excellent professional who has 'everything under control'
- Fulfil the expectations from the Hospital
- Zero rejections

Digital channels I use

LinkedIn   YouTube
in   YouTube

Others channels:
- Industry magazines
- Biochemistry or other professional societies
- Congress, tradeshows
- E-blast

''I am committed to deliver and meet the expectation everyday with no rejections or recollections''

Susan

Age: 45+

Job: Lab Manager

Susan is a lab manager with a Bachelor's and Master's degree in Biochemistry and worked as a Med tech. She developed her career in the lab thanks to her very organized mindset and strong team management skills. She is proud of her lab quality standards. Hence, she makes sure the laboratory results are delivered on time everyday. She would like to cope with everyday volume which can vary. Susan monitors the staff attendance of her staff for everyday needs and needs to make sure that emergencies are covered

What frustrates me?
- Staff turnover, they impact adherence to facility protocols and process…TAT could be negative impacted
- Reduction of budget… 'we need to do more with less' which is always a challenge
- Vendors' lack of empathy when I have problems with instruments. Instrument breakdowns impact the workflow ,
- Admin tasks sometimes demand more time from my side and taking time away from being a Scientific person
- Lack of appreciation regarding the complexity of laboratory testing

My Social style

Level of empathy

1 ▭▭▭ 5

Require advanced detail, support data

1 ▭▭▭▭ 5

My social style is closer to which of the following:

Analytical ▭   **amiable** ▭

BD

Confidential—For Internal Use Only

Susan

Age: 45+
Job: Lab Manager

Message delivery

- Provide evidence: clinical + data
- Be prepared to give detailed explanation of products and services. Help Susan to regain focus and don't get lost in the details
- Show impact of BD on lab team performance and total workflow effectiveness
- Proof of 'what others are doing' could help her to take decisions faster
- Evidence based on local market is a PLUS

My KPIs

Serve the hospital needs by providing quality lab results on time everyday:
- **Lab metrics: TAT, false positives, re-testing, re-collection (contamination, transportation)**
- **Manage lab resources: human resources, product, stock, budget**
- **Compliance with local regulations**

PAIN POINTS

Assure Lab metrics are achieved every day in a consistent and sustainable way

Provide necessary resources (human+capital) to ensure accurate results

Cope with increasing volume while maintaining a quality of test results and lab certifications and reputation

What is the desired behaviour?

DECISION MAKER

- **Seek partner to help achieve lab metrics and drive workflow efficiencies and outcomes. (PAQC)**
- **To recognize BD Vacutainer® is the gold standard vendor in specimen management products and services– Offers services, products and solutions that not only ensures sample quality but also helps achieve lab metrics consistently (Accurate results reported, Meet TAT targets consistently).**

Value Proposition

Safety engineering devices

Evidence

Example:
- Customer testimonial
- Related to patient satisfaction
- NSI the importance of reporting

Sales Tools

Example:
- Training:
  - E-Learning
  - On-hands training
  - Expert videos
- Product usage posters for facilities
- Sales tool
- Sales tool
- Sales tool

Total Solution

Example:
- Chemistry Tubes + UltraTouch™ + PAQC

Jonathan

*'There is not much space to play in procurement, picture is black or white when decisions have to be made'*
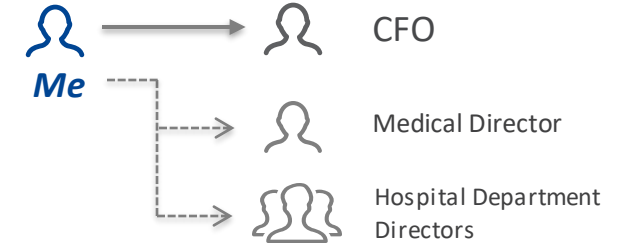
Age: 45+
Job: Procurement Manager

Jonathan background is management/ administrative. While he has developed his career in the healthcare industry he has no clinical background. However, this has not limited his ability to understand the different hospital departments. His position oversees different aspects of the business; his team is responsible for supply, storage and distribution of medical equipment and waste management across the different hospitals and clinics of the National System. He is part of the leadership team and is involved in investment project decisions.

Product user
1 — 5

Budget Management
1 — 5

Purchase decision-maker
1 — 5

DECISION MAKER
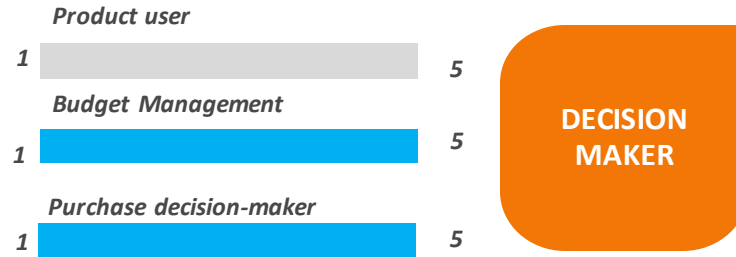
My stakeholders
Me → CFO
Me ⇢ Medical Director
Me ⇢ Hospital Department Directors

My KPIs
- P&L results: top and bottom line
- ROI
- Supply change management: covering demand, inventory management

What motivates me?
- Bring financial benefit to my organization that can be reflected in the P&L . This could be through improvements (inventory, value, service) or price cuts
- Negotiate the best possible price, *'there is a special proud moment on getting the best price for my stakeholders'*

What frustrates me?
- Quality and Supply issues; when a vendor does not comply with the commitment of delivery on time or when product quality constantly fails
- Delays on credit notes resulting from supplier failures
- Irrelevant information for my organization or my country, brought as part of the negotiations

Access to technology at workplace
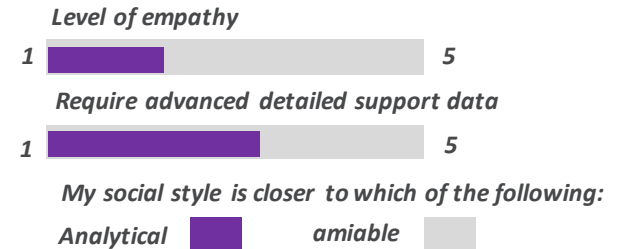- YES
- Internet savvy
- High level: management of digital tools related to my job
- Desk job

Digital channels I use
LinkedIn
Twitter

Other channels:
- Business magazines
- Industry magazines
- E-blast

My Social style

Level of empathy
1 — 5

Require advanced detailed support data
1 — 5

My social style is closer to which of the following:
Analytical   amiable

BD

Jonathan

Age: 45+
Job: Procurement Manager

My KPIs

- P&L results: top and bottom line
- ROI
- Supply change management: cover demands, inventory management

PAIN POINTS

Difficult to find ways to increase profitability outside price cuts

Resource allocation with the same budget with increased volume of demand/needed from hospital departments

Vendor fulfilment of commitment regarding supply and quality

Message delivery

- Factual information
- Show how BD can help him to achieve his goals (P&L impact)
- Speak with data
- Data information supported by numerical results
- Data based on local market is a PLUS
- Can manage complex information

DECISION MAKER

What is the desired behaviour?

- **Before evaluating BD, help understand the concept total cost of ownership and partners who can help identify ways to improve operational efficiencies.**
- **Understand benefits of reducing workflow inefficiencies, sample quality issues/rejections, instrument down time and delivering results right the first time.**
- **To evaluate BD Vacutainer® with -the total cost of ownership- mindset rather than a head-to- head price comparison**

Value Proposition

Example
Total cost of ownership

> Section to be finalized by messaging team

Evidence

Example:
- Related to patient satisfaction
- NSI the importance of reporting

> Section to be finalized by evidence team

Sales Tools

Example:
- Training:
  - E-Learning
  - On-hand training
  - Expert videos
- Product usage posters for facilities
- Sales tool
- Sales tool
- Sales tool

> Section to be finalized by Sales Tool team

Total Solution

Example:
- Chemistry Tubes + UltraTouch™ + PAQC

Liza

Age: 25+

Job: Phlebotomist

Liza, studied clinical laboratory. She started working as a Phlebotomist when she took a position in the Lab where it was required to shift between lab technician and phlebotomist roles.

Despite the challenges of the job, she enjoys it as she realized she is the main contact between the lab and the patient. She has gained experience in difficult vain blood collections.

'From the patient's eyes, I am the person who represents the lab. Therefore I am trying to give the best experience while managing the challenges of my job'

Product user

1 ▬▬▬▬▬ 5

Budget Management

1 ▬▬▬▬▬ 5

Purchase decision-maker

1 ▬▬ 5

USER (Influencer)
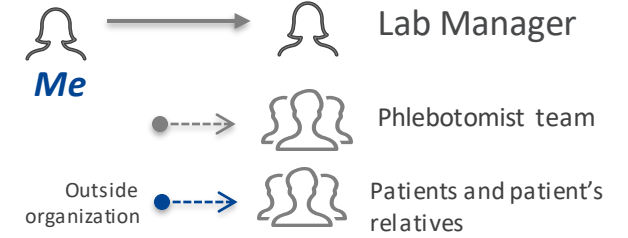
My KPIs

What motivates me?

- My day-to-day contact with customers is something that I enjoy. I like to think I am going to be part of their diagnostics
- Knowing that my hospital cares about me, feels good... training, safety... motivates me.
- I am particularly interested on developing my experience in paediatric wards and DVA patients. It is very easy how I can help my team and patients if the blood draw goes smoothly

What frustrates me?

- Workload can be very challenging... I am always worried to make mistakes
- I have to hide my stress so it is not perceived by the patient
- Product failures immediately affect the perception of the patients. Example I once experienced a blood leakage at the moment of the blood withdraw and it was a horrible experience

My stakeholders

Me → Lab Manager

Phlebotomist team

Outside organization → Patients and patient's relatives

Access to technology at workplace

- No
- Sometimes I am not even allowed to have my personal mobile with me

Digital channels I use

YouTube   Facebook   Instagram

Other channels:
- Professional magazines given by Sales Reps but I don't but any
- Alumnus associations

My Social style

Level of empathy

1 ▬▬▬▬▬ 5

Require advanced detail, support data

1 ▬▬▬ 5

My social style is closer to which of the following:

Analytical ▬   **amiable** ▬

BD

Liza

Age: 25+

Job: Phlebotomist

My KPIs

- Patient complaints
- Sample quality: label (documentation) fill volume
- Adherence to facility protocols
- No accident targets (zero NSI)

PAIN POINTS

Patient experience

Including DVA patients

Safety: my own and my patient

Cope with workload (volume) while adherence to facility guidance and best practices

Message delivery

- Be personal
- Be empathic
- Utilize visual support to explain product benefits, example: videos, posters
- Advice sharing experiences from industry colleagues are great to deliver the message
- Show 'HOW' when talking about product benefits.. Emphasis on technology names
- Hands-on training

USER (Influencer)

What is the desired behaviour?

- Seek ways to improve patient experience (training, education, technology)
- Seek ways to protect her patients and herself (training, education, technology)
- Articulate how partnership with BD can help improve safety, workflow efficiency and patient experience.

Value Proposition

Painless blood collection
Safety engineering devices

Section to be finalized by messaging team

Evidence

Example:
- Customer testimonial
- Related to patient satisfaction
- NSI the importance of reporting

Section to be finalized by evidence team

Sales Tools

Example:
- Training:
  - E-Learning
  - On-hands training
  - Expert videos
- Product usage posters for facilities
- Sales tool
- Sales tool
- Sales tool

Section to be finalized by Sales Tool team

Total Solution

Example:
- Chemistry Tubes + UltraTouch™ + PAQC

Joe

''I am an unsung hero. I play a vital role in patient diagnostics though I rarely see patients face-to-face''

Age: 30+

Job: Lab Technician

After a degree in clinical laboratory science and passing through a med tech certification exam, I started my career as a lab technician.

As a lab technician, I have a variety of responsibilities:
- Prepare samples
- Analyzing samples
- Collecting and analyzing data and test results
- Discuss findings with medical personnel
- Maintain lab equipment
- Validate new test assays
- Develop new laboratory methods and procedures.
- Conduct research etc.

Product user

1 ▬▬▬▬▬ 5

Budget Management

1 ▬▬▬ 5

Purchase decision-maker

1 ▭▭▭ 5
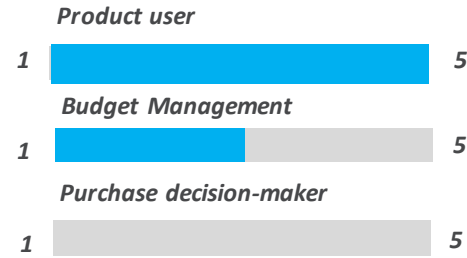
USER (Influencer)

My KPIs
- Precision and accuracy in managing and recording lab results.
- Maintain lab equipment so that downtime is minimized.
- Maintain lab records and report findings to support audit.
- Compliance to SOP's

What motivates me?
- Though I work behind the scenes, my work is increasingly important to diagnose patient illness and conditions.
- The information provided by my work is priceless.
- My job has a ton of responsibility though it may not have direct contact with patients.
- I am an analytical person who is passionate about science and research.

What frustrates me?
- Workload with time pressure can be extremely changing.
- Blame game from physicians/nurses
- Not properly funded with sufficient equipment and staff to handle the volume of testing.
- Erratic hours to cover call outs or to compensate for broken or improper lab equipment

My stakeholder

Me → Lab manager
Me ⇢ Physician/Nurse
Me ⇢ Phlebotomists

Access to technology at workplace
- No
- Sometimes I am not even allowed to have my personal mobile with me
- Internet savvy

Digital channels I use

YouTube *Facebook* *Instagram*

Other channels:
- Professional magazines
- Alumnus associations

My Social style

Level of empathy

1 ▬▬▬▬ 5

Require advanced detail, support data

1 ▬▬▬▬ 5

My social style is closer to which of the following:

Analytical ▬   amiable ▭

BD
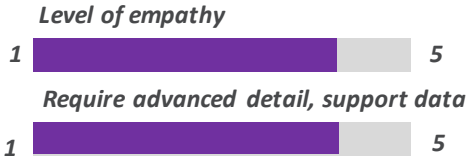
Joe

Age: 30+
Job: Lab Technician

My KPIs

- Precision and accuracy in managing and recording lab results.
- Maintain lab equipment so that downtime is minimized.
- Maintain lab records and report findings to support audit.
- Compliance to SOP's

PAIN POINTS

Challenges in meeting TAT targets for the laboratory consistently.

Lack of resources (human + capital) to ensure accurate results

Cope with increasing volume while maintaining quality of test results, lab records and compliance to SOP's.

Message delivery

- Enable lab efficiency by improving diagnostic accuracy, sample integrity and quality.
- Provide details but emphasis on main points; keep focus
- Use of infographics is recommendable
- Emphasis about the technology behind each product
- Provide a source where he can find out more information

USER (Influencer)

What is the desired behaviour?

- **Seek partner to help achieve lab metrics and drive workflow efficiencies and outcomes. (PAQC)**
- **Articulate how partnership with BD can help improve sample quality and achieve lab metrics (Accurate results reported, Meet TAT targets consistently).**

Value Proposition

Safety engineering devices

Evidence

Example:
- Customer testimonial
- Related to patient satisfaction
- NSI the importance of reporting

Sales Tools

Example:
- Training:
  - E-Learning
  - On-hands training
  - Expert videos
- Product usage posters for facilities
- Sales tool
- Sales tool
- Sales tool

Total Solution

Example:
- Chemistry Tubes + UltraTouch™ + PAQC

Product user

1 ▬▬▬▬▬ 5

Budget Management

1 ▬▬▬▬▬ 5

Influence on purchase decision

1 ▬▬▬▬▬ 5

USER (Influencer)

My stakeholders

Me → Nurse Manager

Physicians

Patients and patient's relatives

My KPIs
- Provide the fastest and efficient care
- Patient experience and patient satisfaction
- No accident targets (zero NSI)
- Adherence to facility protocols

Access to technology at workplace
- YES
- Internet savvy
- High level: management of digital tools related to my job
- Desk job

What motivates me?
- Help my patients recover from illness
- Make a positive difference for my patients
- Keep abreast of new technologies and procedures
- My job offers me endless opportunity to learn and grow

Digital channels I use

Facebook f

YouTube ▶

Other channels:
- Professional magazines
- Nurse Journals
- Alumnus associations

What frustrates me?
- Workload can be extremely challenging.
- Blood collection sticks, fishing and re-sticks negatively impact patient experience
- Delays in reporting test results
- Specimen rejection by the laboratory.
- Poor communication between nursing and phlebotomy results in double sticks, sample collection delays and missed draws.
- Lot of paper work that takes time away from the patient.

My Social style

Level of empathy

1 ▬▬▬▬▬ 5

Require advanced detail, support data

1 ▬▬▬▬▬ 5

My social style is closer to which of the following:

Analytical ▬   **amiable** ▬

''I love serving people in whatever way I can''

Nathalie

Age: 35+
Job: Nurse

Nathalie completed her Bachelor's in Nursing degree and worked in multiple departments within hospital.
Nathalie cares for her patients.
Nathalie manages multiple tasks related to patient care
Nathalie collaborates and communicates between all medical staff to deliver excellent care
Nathalie keeps abreast of new technologies and procedures.

BD

Nathalie

Age: 42
Job: Nurse

My KPIs

- **Provide the fastest and efficient care**
- **Patient experience and patient satisfaction**
- **No accident targets (zero NSI)**
- **Adherence to facility protocols**

PAIN POINTS

Blood collection sticks, fishing & re-sticks NEGATIVELY IMPACT patient experience

Concerned about needle safety and accidental needle stick injuries

Difficult vein access patients

Message delivery

- Be personal
- Be empathic
- Show BD impact in patient experience... emphasis in technologies name so she can remember the differences
- Utilize visual support to explain product benefits, example: videos, posters
- Advice or experience sharing from industry colleagues are great to deliver the message
- Hands-on training

USER (Influencer)

What is the desired behaviour?

- **Seek ways to improve patient experience (training, education, technology)**
- **Seek ways to protect her patients and herself (training, education, technology)**
- **Articulate how partnership with BD can help improve safety and patient experience.**

Value Proposition

Safety engineering devices

Section to be finalized by messaging team

Evidence

Example:
- Customer testimonial
- Related to patient satisfaction
- NSI the importance of reporting

Section to be finalized by evidence team

Sales Tools

Example:
- Training:
  - E-Learning
  - On-hands training
  - Expert videos
- Product usage posters for facilities
- Sales tool
- Sales tool
- Sales tool

Section to be finalized by Sales Tool team

Total Solution
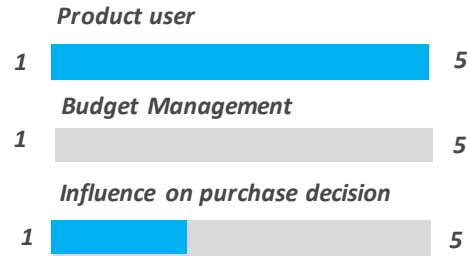
Example:
- Chemistry Tubes + UltraTouch™ + PAQC

Nurses Profile Persona

FRIEND, HEALER, HERO

RICARDO

Nurse

ATTITUDE

"My priority is a positive patient experience, for patients to come to no extra harm or discomfort with VA

I recognise VA errors can occur and will only formally raise those with serious complications. 'Near misses' remain and are addressed within nursing "

MY MOTIVATIONS/GOALS	FEELINGS	PAINPOINTS	COMMUNICATION NEEDS	INFORMATION NEEDS	INFORMATION TOUCHPOINTS
PATIENT DRIVEN: I want to be empowered in Vascular Access with acknowledgement for championing best patient care	Passionate about delivering high standards (individually and as a nursing team)	Need to escalate to physicians, when they don't necessarily have the expertise	PERSONALISATION: content that demonstrates understanding of my needs	Latest developments in insertion and products to resolve and /or prevent VA issues	Nursing associations/societies
SUCCESS (myself): It's highly rewarding when I demonstrate my advancing expertise by effectively inserting lines, especially in difficult vasculature	Frustrated and disappointed when issues occur	No access to Ultrasound guidance devices. Ultrasound will lessen patients' distress as lines will be easily inserted	TIME EFFICIENT: delivered in a way that makes best use of my time (answers readily accessible)	Solutions to aid with monitoring, compliance and training	Conference website message boards and peer messaging boards
SUCCESS (team): I like to uphold the reputation of the unit I work in by ensuring we collaborate as a team to maintain healthy maintenance of the line and safety for the patient		Poor transfer of information between stakeholders who are taking over patient care	AUTHENTIC: Content and sources that I can trust, seemingly balanced viewpoint (not overly promotional)		VA and Nursing journals (relating to specialty)
		Sense of "blame" culture among nursing standing in the way of sufficient reporting and documentation. Infection control viewed as "police"			Local nursing experts
					Annual hospital competency training
					Manufacturer support services i.e. sponsored educational events, auditing services

Nurses

Current Behavior

I am dedicated providing best patient care and frustrated and anxious to see patients not feeling well. I use routinely VA access and don't see VAM complications
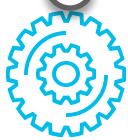
Current Belief

I don't believe VAM complications are very impactful and frequent. I only report the ones I consider serious and other are treated as normal outcomes
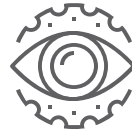
Insights

"My passion is to provide best patient care. I feel rewarded when my VA expertise is recognized and be part of the process
I am anxious to see patient discomfort and would raise VA complications as soon as I recognize and identify them"

Desired Behavior

I know and reassured to provide best patient care – every time I see a VAM complications, I feel safe to report and escalade up
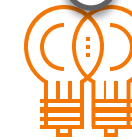
Desired Belief

I am conscious that VA complications arise and need to be addressed as well as escalated EVERYTIME.
I am consistently addressing it as part of my practice

Clinician/Physician Profile Persona

SCIENTIST, HERO, DETECTIVE

NATALIE

Goal oriented physician
(ER physician, anaesthesiologist, cardiologist)

FEELINGS

"It is essential that teams are working together to ensure a continuity of patients' care"

MY MOTIVATIONS/GOALS

AUTHORITATIVELY DRIVEN:
We are ultimately seen as leaders however our responsibility does not necessarily lie within VA. Our goal is efficient patient treatment that enables us to deal with the high volume of patients we see on a daily basis.

SUCCESS:
"Nurses get it in, no problem or wasted time" that is success for me. Teams need to be highly skilled to achieve fast and effective access without complications. This allows us to focus on our role as specialists and only deal with the most urgent/ complex vascular access incidents.

FEELINGS

Frustrated when medics/nurses are insufficiently trained and fail to successfully insert a line.

Worried when highly experienced nurses were unable to insert a line

A sense of responsibility to pass knowledge on how to successfully gain access to younger doctors

PAINPOINTS

Lack of continuous training for nurses and medics. This would help us prioritise patient incidents which benefit more from our expertise

Nurses need to be trained on Ultrasound guidance access. This could save us time and enable us to focus on critical situations.

Committees take too long to review any changes or suggestions. A faster implementation could save time and improve vascular access

COMMUNICATION NEEDS

DATA DRIVEN:
content that clearly reflects clear advantage of one device over another

TIME EFFICIENT:
delivered in a manner which is easy and quick to digest for physicians

REPLICABLE:
content that can easily be shared amongst different specialties and the ability to develop further training for junior doctors/ nurse managers

INFORMATION NEEDS

Head to head data for VA devices/ products

Better access of information/ training for junior members of team or nursing staff to ease workload of physicians

INFORMATION TOUCHPOINTS

Specialist conferences

Peer- reviewed journals specific to speciality (including information on vascular access)

Peer networks in other hospitals

Manufacturer content delivered via sales reps/ websites

Society of interventional radiology

Cross network MDT meetings

Clinician/Physician

Current Behavior

VA is not part of my priorities and i am focusing on critical specialties
I leave nurses usually taking part of the VA process and only deal with serious complications

Current Belief

I don't believe VA Complications are very serious and impactful. I believe nurses should handle them directly
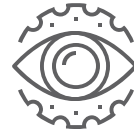
Insights

"I feel accountable for patient care and focus on speciality. I am making sure teams are working together however I don't see myself being part of the VA process only when serious complications happen "

Desired Behavior

I am making sure teams are working collaboratively and we have a system to report every VA complications. Nurse are usually driving the system but we do review it consistently and build a culture of safety

Desired Belief

VA complications can be serious and we need to address them consistently. I believe VAT are critical to ensure reducing of complications

Infection Control/Hygienist Profile Persona

LEADER, DETECTIVE, SCIENTIST

ANNA

Infection control / risk management

MY MOTIVATIONS

"It's essential for us to create a culture of safety and infection prevention"

MY MOTIVATIONS/GOALS

REPUTATION DRIVEN:
I have a mission to achieve best quality standards with continual improvements and monitoring

SUCCESS:
It's essential for us to create a culture of safety and infection prevention i.e. accurate documentation of events, nurses feeling confident to speak up and knowledge on the right device for the right indication

FEELINGS

Responsible and determined to lead on driving change through establishing procedural consistency, introducing meaningful product innovation and creating lasting interventions

PAINPOINTS

"Sometimes I think I am doing my best to keep infection rates low, but not all staff are doing a sufficient documentation of incidents"
- Daily procedural and maintenance errors are not always reported, leading to increased infection rates that could have been avoided

Lapses in concentration or awareness around hygiene and protocol compromises patient care and the hospital's integrity

COMMUNICATION NEEDS

PURPOSEFUL:
Provision of content that meets a clear need and makes a difference

PERSONALISATION:
Content that demonstrates understanding of my needs

HIGH QUALITY:
Connects with the desire to equip themselves to 'do more' in VA

INFORMATION NEEDS

Latest developments in insertion and maintenance (especially central line), including products to resolve and /or prevent infection issues

Information on infection benchmarks within hospital / regions to inform success measures

Solutions to aid with monitoring, compliance and training

INFORMATION TOUCHPOINTS

Infection control and prevention conferences

National quality forum / KRINKO

Online journals, literature and daily email subscription/news

Local / regional hospital networks

Manufacturer provided prevalence surveys /audits

Manufacturer sponsored online seminars

Infection Control

Current Behavior

I am establishing protocols and policy to ensure patient safety and hospital integrity. I try to keep them up-to-date and guided by European/National guidelines. Monitoring or control measuring on reporting are not always in place and/or not escalated/followed

Current Belief

I believe creating a culture of safety and infection control is critical for patient care and hospitals integrity. However, i dont think measures to report complications and escalate up any dysfunctional procedures are followed or triggered
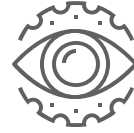
Insights

"I want to safeguard patient safety and hospital reputation through enhancing a culture of safety. Despite putting in place protocols and policy I would like to get more support on the control and following up with the staff

Desired Behavior

I am proud that the safety and prevention culture is on the right trajectory. Controls and procedures for infection prevention are followed and when complications or dysfunctional procedures arise then nurses feel safe to escalate up
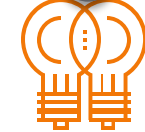
Desired Belief

I believe our hospital reputation is good and the staff feel safe to speak up and report back complications. I am proud about the culture I established with the management team.

Gotham – New Bactec personas

Click to add text

Dennis

Age: 55+

Job: Lab Director

A recognized clinician responsible for several microbiology labs in his hospital network

Dennis is a pathologist with a MD degree.
Dennis would like to showcase his lab as the best in class and identify ways to expand lab services.
Dennis would like to bring outreach/molecular/genetic testing to the lab to increase revenues.
Dennis likes to publish in respected journals
Dennis is interested to cut waste, redundancies and improve system efficiencies.
Dennis likes to develop and retain top talent

Product user
1 ▬▬▬▬▬▬▬ 5

Budget Management
1 ▬▬▬▬▬▬▬ 5

Purchase decision-maker
1 ▬▬▬▬▬▬▬ 5

DECISION MAKER

My Workflow

Me → Happy Path
→ Troubleshooting/Error Handling
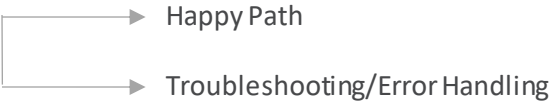
My Tasks
- Works on optimizing workflows with input from senior microbiologist
- Investigates, recommends and purchases equipment, supplies and instrumentation
- Contributes to the education and training of medical students
- Identifies areas for improvement in the labs
- Creates a safe work culture and establishes effective laboratory safety
- Sets research priorities and drives innovation
- Monitors that the lab is following all regulations and protocols
- Coordinates with surveillance, public health, epidemiology efforts
- Directors regularly communicate with clinicians to answer questions

My Pain Points
- Processes which are prone to error
- Manual processes that increase the risk of user exposure
- Accuracy of results
- Getting and retaining microbiology staff
- Efficiency and effectiveness of results reporting; when to send reports (preliminary vs. final) and how best to communicate them
- Off label testing
- Coordinating collection and transport of specimens

My Interaction with BD
- Dennis is likely the final decision maker when purchasing new instruments for the lab, but would rely on the lab manager to coordinate with BD sales and instillation teams

What I Want from BD
- Would like to review prior results for the same patient remotely
- Needs to easily determine the status of a blood culture sample that has been sent to a centralized microbiology lab (i.e. if no visibility of microbiology lab's LIS).
- Labs need to minimize the effort to accurately track blood culture sample volume trends for different units in the hospital

US/EU Differences
- Lab Directors in the EU sometimes do not have a microbiology/lab bench background, and instead can come with an MD or managerial background
- Lab Directors in the US are more of a mix and have either a microbiology/lab bench background or an MD background

BD

Mikaela

Age: 45+
Job: Lab Manager

I manage the microbiology lab and I am experienced with the entire blood culture sample workflow. I appreciate automation.

Mikaela is a lab manager with a Bachelor's and Master's degree in Biochemistry and worked as a Med tech. She developed her career in the lab thanks to her very organized mindset and strong team management skills. She is proud of her lab quality standards. Hence, she makes sure the laboratory results are delivered on time everyday. She would like to cope with everyday volume which can vary. Mikaela monitors the staff attendance of her staff for everyday needs and needs to make sure that emergencies are covered

Product user

1 ▬▬▬░░░░░ 5

Budget Management

1 ▬▬▬▬▬▬▬ 5

Purchase decision-maker

1 ▬▬▬▬▬▬▬ 5

DECISION MAKER

My Workflow

Me → Happy Path

Me → Troubleshooting/Error Handling
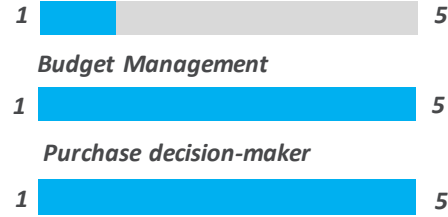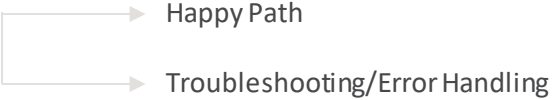
My Tasks

- Optimizing staffing to maximize productivity
- Contracts
- Equipment purchases
- Service contracts
- Documentation
- Establishing workflows
- Quality control
- Monitors and schedules routine maintenance for all laboratory instruments and machinery
- Might complete bench work when short staffed

My Pain Points

- Processes which are prone to error due to users forgetting tasks
- Bad ergonomics
- Tracking quality
- Tracking if team members are meeting requirements, such as training
- Bottles handled by instrument in a way that would increase risk of cross-contamination

My Interaction with BD

- If a tech is unable to resolve/trouble shoot an issue, I will reach out to the manager who will then call the BD help line
- Work with a BD service engineer over the phone to try and remotely resolve the issue.
- If the instrument is completely down and needs servicing, I will coordinate a date and time with BD to have an FFC dispatched

What I Want from BD

- An automated instrument that allows processing techs to load the instrument
- Likes bulk loading; efficiency w/ automation
- Wants technology to handle/accommodate variations, delays, and user error
- Instrument to handle bottles loaded randomly
- Instrument that is easy to clean/vendor preventative maintenance
- Visual cues to trigger next step
- Alarm for expired bottles being entered
- Unloading positive bottles in less than 30 sec
- Minimize the likelihood that there's not enough room for all blood culture samples in their BACTEC or BacT/ALERT instrument(s)
- The ability to troubleshoot blood culture instrumentation errors or malfunctions
- Minimize changes to current workflows

US/EU Differences

- Lab Managers in EU may have to worry more about issues that arise from no overnight staff, such as numerous bottles awaiting processing in the morning/Mondays

Product user

1 ▬▬▬▬▬ 5

Budget Management

1 ▬▬▬ 5

Purchase decision-maker

1 ▭▭▭ 5

USER (Influencer)

My Workflow

Me → Happy Path

→ Troubleshooting/Error Handling

Responsible for reading and checking key results like gram stain, MALDI, and AST. I appreciate high accuracy of results and low contamination risks

Mary

Age: 40+
Job: Senior Microbiologist

TBD
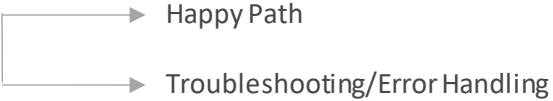
My Tasks

- Optimizing the sepsis workflow
- Managing lower level technicians
- Conducting higher skill level testing such as MALDI prep
- Reading gram stains, MALDI results, and AST results
- Responsible for results reporting to clinicians, nurses, pharmacy, and antibiotic stewardship
- Handles protocols for unique conditions, such as slow growing organisms
- Can be involved in equipment purchases
- Responsible for tech training
- Documentation, sample tracking
- QC and validation
- Writing Protocols
- Fields calls and questions to the lab

My Pain Points

- Processes which are prone to error due to users forgetting tasks
- Manual processes that increase the risk of user exposure
- Cross-contamination impacting the accuracy of results

My Interaction with BD

- If I'm unable to resolve/troubleshoot an issue, I will call the BD help line
- I'll work with a BD service engineer over the phone to try and remotely resolve the issue

What I Want from BD

- Minimize the risk of a false negative blood cultures due delayd before entering the bottle
- Wants to minimize the risk of false negatives
- Need to easily determine which site on a patient a blood culture set was drawn from
- Would like a simple way to communicate to physicians if a blood culture bottle result may be less-accurate due to low fill volume, bottles sitting in room temperature for hours before being incubated etc.
- To easily reference a patient's previous blood culture test results as context for the work-up of a newly positive blood culture bottle
- Needs to minimize delays in positive blood culture workup due to techs not noticing / ignoring BACTEC or BacT/ALERT alerts
- Would like a way to review analytics such as time to positivity, time from positivity to final results, contamination rate, under fill rates

US/EU Differences

- Senior Microbiologist in the EU often hold an MD, and can discuss patient treatment options in addition to checking lab results
- Senior Microbiologist in the EU may have to worry more about issues that arise from no overnight staff

Teka

Age: 25+

Job: Lab Technician

I work on the blood bench in the lab and focus on completing the lab tasks efficiently

After a degree in clinical laboratory science and passing through a med tech certification exam, I started my career as a lab technician.

As a lab technician, I have a variety of responsibilities:
- Prepare samples
- Analyzing samples
- Collecting and analyzing data and test results
- Discuss findings with medical personnel
- Maintain lab equipment
- Validate new test assays
- Develop new laboratory methods and procedures.
- Conduct research etc.

Product user

1 �━━━━━━ 5

Budget Management

1 ━━━━━━ 5

Purchase decision-maker

1 ━━━━━━ 5

USER (Influencer)

My Workflow

Me → Happy Path

→ Troubleshooting/Error Handling

My Tasks
- Accessioning
- Bottle Load/Unload
- Minor trouble shooting, such as rack alignment and bottle jams
- Rack management, making sure the instrument has room for unloading/loading
- Print reports

My Pain Points
- Lack of clear instructions of processes/training
- Lack of feedback from an instrument to have confidence to walk away
- Ease of use of instrument
- Hands on time, both physical and UI iterations
- Security of samples
- Integration of new technologies into their existing workflow

My Interaction with BD
- If a tech is unable to resolve/trouble shoot an issue, she will call the BD help line

What I Want from BD
- Prefer to know the number of PBCs and waste capacity both on instrument home screen and remote access.
- Would like to have a quick link to print report and select which bottles to include in the report
- All alarms and alerts need to be both on instrument and through remote access, and in some cases can be resolved remotely
- If errors were ranked in priority, so more critical errors can be handled first
- Would like to be alerted when rack space is running low
- Support to choose which PBC to pull first. Information need, how many bottles per patient and positivity status of those bottles. Default setting for prioritizing when multiple bottles from the same patient goes positive

US/EU Differences
- Lab Managers in EU may have to worry more about issues that arise from no overnight staff, such as numerous bottles awaiting processing in the morning/Mondays

Ata

Age: 30+

Job: Accessioning Tech

TBD

Responsible for all the procedures related to bottle handling prior to testing.

Product user

1 ▬▬▬▬▬ 5

Budget Management

1 ▬▬▬▬▬ 5

Influence on purchase decision

1 ▬▬▬▬▬ 5

USER (Influencer)

My Workflow

Me → Happy Path

→ Troubleshooting/Error Handling
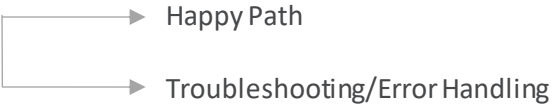
My Tasks
- Accessioning (receiving, unpacking, and scanning bottles into LIS, possibly adding labels on bottles).
- Organizing the bottles into racks and/or carts to transport bottles to the instrument and load bottles to minimize time at room temp
- Minor trouble shooting, such as rack alignment and bottle jams
- Rack management, making sure the instrument has room for unloading/loading

My Pain Points
- High hands-on time (unpacking bottles, inspecting bottle fill volume levels, labeling, checking paper-work)
- Risk of mislabeled bottle/discrepancies in sample labeling
- Lack of feedback from an instrument to have confidence to walk away
- Ease of use of instrument
- Security of samples
- Creating wasted forms/labels that are printed during Accessioning

My Interaction with BD
- If a tech is unable to resolve or trouble shoot an issue, I will call the BD help line

What I Want from BD
- Support to resolve anonymous bottles (either at Accessioning station or at the instrument)
- Instructions on where to place accessioning label
- All alarms and alerts need to be both on instrument and through remote access, and in some cases can be resolved remotely
- If errors were ranked in priority, so more critical errors can be handled first
- Would like to be alerted when rack space is running low

US/EU Differences
- Lab Techs in EU may have to worry more about issues that arise from no overnight staff, such as numerous bottles awaiting processing in the mornings/Mondays

BD

Cleo

Age: 30+

Job: Clinician (Physician/Nurse/Phlebotomist)

'From the patient's eyes, I am the person who represents the lab. Therefore I am trying to give the best experience while managing the challenges of my job'

- Cleo studied clinical laboratory. She started working as a Phlebotomist when she took a position in the Lab where it was required to shift between lab technician and phlebotomist roles.
- Despite the challenges of the job, she enjoys it as she realized she is the main contact between the lab and the patient. She has gained experience in difficult vain blood collections.

Product user
1 ▮▮▮▮▮ 5

Budget Management
1 ▯▯▯▯▯ 5

Influence on purchase decision
1 ▮▯▯▯▯ 5
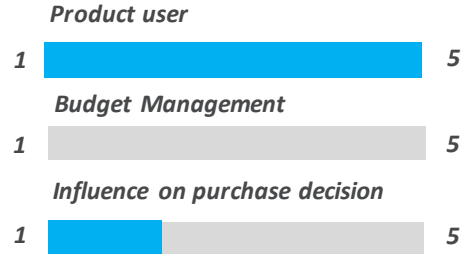
USER (Influencer)

My Workflow   Me → Pre/Post Happy Path

My Tasks
- Assessing patient condition
- Deciding were to draw the patient's blood
- Ordering/reviewing blood culture tests
- Collects blood sample into BACTEC bottles
- Adds Patient ID Barcode and potentially the Hospital/Facility ID Barcode onto the bottle
- Packs bottles for transport to the Microbiology Lab
- Reviews Patient Results
- Contact lab to clarify results
- Updates Patients treatment plan according to blood culture results

My Pain Points
- Turn around time on results
- Gaining access to veins (due to physiology, weak blood pressure, anemia)
- Filling blood culture bottle to recommended blood fill volume
- Checking for expired bottles
- Ambiguity of when results will become available
- Number of labels; risk of improper labeling/label placement
- Making sure all necessary paperwork is included with samples for transport to the Micro lab

My Interaction with BD
- Not likely to contact BD services

What I Want from BD
- Would like a notification when the patient sample is received by the lab
- Would like continuous/real time results
- To easily determine which site on a patient a blood culture set was drawn from
- False positives/negatives (Physician needs to know how confident the lab is in a negative blood culture result)
- Physician needs to know risk of False Negative due to blood culture samples remaining at room temperature for hours prior to incubation.
- Physician needs to minimize risk of patient harm due to inappropriately altering treatment based on imperfect samples (e.g. low-volume false negative)

US/EU Differences
- EU Clinicians are often more cost-conscientious when ordering tests compared to the US

Product user

1 �▬▬▬▬▬▬ 5

Budget Management

1 ▬▬▬▬▬▬▬▬ 5

Influence on purchase decision

1 ▬▬▬ 5

USER (Influencer)

My Workflow

Me

→ Installation

→ Configuration

→ Troubleshooting/Error Handling

My Tasks
- Approval of new instrumentation/systems
- Ensuring security of data
- Conducting risk assessment & tech reviews
- Integrating new instruments to the LIS
- Facilitating remote setup to connect to LIS

My Pain Points
- BD requests technical information 6 months -1 year in advance of installation, but often that information changes by the installation date leading to confusion
- It is unclear when purchasing a new instrument with a service contract, what tools will be used to service/maintain the instrument that can cause security concerns (wary of video, photos, audio recordings, remote access)
- Confusion around software licensing agreements

My Interaction with BD
- I coordinate all technical information with BD prior to installation and would work hand in hand with BD to connect the new instrument to the LIS
- I can work with a BD service engineer to try and resolve IT issues either remotely or during a service visit.

What I Want from BD
- To disclose, prior to purchasing, what tools will be used for maintaining/servicing the instrument
- More communication touch points prior to installation to ensure all information is up to date and correct

US/EU Differences
- None

Responsible for easily integrating new technologies at the hospital or reference lab

Ita

Age: 30+

Job: External IT Engineer

- Ita has a bachelor's in computer engineering and has worked at several hospitals.
- Ita keeps abreast of new technologies and procedures.

BD

BD

BODINE & CO.

Louise
LAB MANAGER, ATR HOSPITAL SYSTEM

- As an experienced lab manager, the well being of Louise's patients and staff are a top priority for her.
- Efficiency is of the utmost importance to Louise. She wants to make sure her lab delivers reliable and timely results.
- Louise has a tight budget to manage and cannot afford unforeseen costs.
- Louise already feels short-staffed, so equipment downtime and backorders are stressful for her.

" We miss our previous vendor. With them, we received an order confirmation right away through email, with a link to track the order. They arrived on time and without issue.

With BD, it's like a black hole as to when our orders will arrive — and the time and money their delays cost us really frustrates my technical director."

Louise's hospital system implemented BD equipment 3 years ago. She orders her consumables directly from BD — some through a standing order and others as she needs them. The deliver process is often difficult, and she relies heavily on her BD sales rep to navigate the challenges of tracking down her shipments and getting her what she needs.

Confidence in BD delivery process — Louise lacks confidence in the BD delivery process due to the frequent delays she experiences.

Sales rep satisfaction — Louise's sales rep is her saving grace. She's grateful for the help, but doesn't think delivery troubleshooting should be a sales rep's job.

Brand loyalty — Louise likes BD's technology, but her negative order and delivery experiences make her feel iffy about the company.

MAP LEGEND
Importance of Step to Louise:
LOW   MEDIUM   HIGH

As-needed order: ————
Standing order: - - - - - -
Both: ——————

PHASES	▶ CHECKS INVENTORY	▶ PLACES ORDER	▶ TRACKS ORDER	▶ DEALS WITH ORDER ISSUES
NEEDS & EXPECTATIONS	• Expects BD's products to be readily available when she needs them. • Needs inventory to not exceed storage space.	• Needs to know what substitutes exist for products that are currently unavailable. • Expects products to be easy to find in her internal ordering system. • Wants one BD division to deal with for all the products she needs.	• Expects BD to send her an order confirmation and tracking number. • Expects standing orders to arrive on time — no exceptions. • Expects BD to communicate delays immediately and to proactively recommend substitutions. • Has grown to expect that account reps will help troubleshoot and escalate delays.	• Needs BD to provide delivery notification. • Expects BD to deliver what was ordered. • Needs orders to arrive at the correct building on her campus.

PERFORMS WEEKLY CHECK
Louise's staff spends every Monday walking their storage space and visually checking their shelves. Her staff documents the product needs on their lab white board. Louise reviews it and gets ready to order that day because she knows it takes 10-12 days for BD to deliver.

SET UP A STANDING ORDER
Louise sets up a standing order for her routine lab supplies. She excited not to have to put so much effort into her ordering process anymore.

"I want to move to a standing order so that I don't have to think about it all the time and just know it's working."

"Our BD rep is great about responding — but it's all based on my labor instead of someone else at BD giving me the info I need."

"BD is constantly changing item numbers, and I have to keep track of all of them. I don't know why BD changes them."

ENTERS FIRST ORDER
BD products aren't pre-populated in Louise's internal purchasing system — so she manually enters her order and double checks the product codes.

CALLS BD SALES REP
It's been 10 days and Louise hasn't received her order yet, so she calls her BD sales rep to check on the status. She always gets a quick response from her rep if she puts in the effort to call.

"I just enter the info and hope for the best. It's a black box. I'm crossing my fingers."
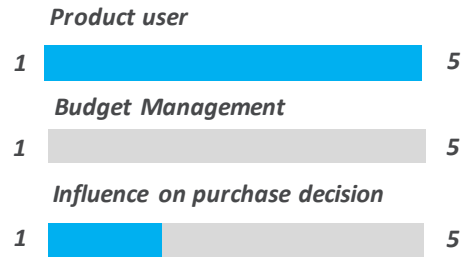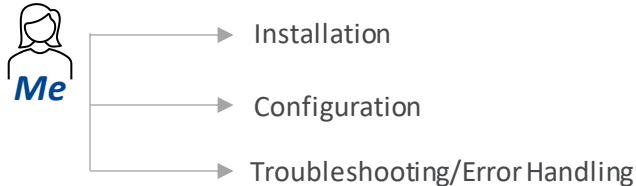
WAITS & HOPES
Louise does not receive an order confirmation from her internal buyer or from BD. She hopes for the best and begins her 10-day waiting game.

ENTERS SECOND ORDER
Louise also needs supplies that come from a different BD division, so she creates a separate order following the same manual steps.

"They said our standing order is delayed because it didn't pass QC. How can that be? I have a standing order for a reason."

FINDS OUT ABOUT QC DELAY
Louise calls her rep to make sure her standing order went through and finds out her test media is delayed because of a QC issue.

"The last time we had a backorder they told us it would be 4-6 weeks and that's crazy. You can't tell a customer that. People don't keep that much in stock."

FINDS OUT ABOUT BACKORDER
Louise's rep tells her that her products are on backorder and won't arrive for another 2 to 4 weeks. Ugh, not again!

"In crisis times we don't care about the money. We just pay for BD's mistakes."

CALLS OTHER VENDOR
Louise can't operate her lab without this media, so she calls another vendor. She's relieved that she can get the media the next day so testing can continue, but frustrated that she has to pay list price. Yet another ding to her budget.

"Delays affect patient care because if we don't have the supplies, we can't run our tests — and that puts the clinicians behind. They obviously don't like that."

DELAYS PATIENT TESTS
BD's delay causes Louise to run out of supplies, so she delays patient testing.

RETRIEVES BORROWED SUPPLIES
With help from her BD sales rep, Louise locates the closest hospital from which she can borrow what she needs. Depending on staff availability, Louise's staff either drives two hours round-trip to borrow supplies, or she uses her budget to pay for a courier.

"We borrow from other hospitals, but its difficult because we're pretty much the only game in town."

RECEIVES ORDER FROM OTHER VENDOR
Louise's test media arrives the next day.

"My deliveries often end up at another research building on campus and it's a 20-minute walk to get there."

"When we get backed-up shipments all at once, our lab space becomes like a hoarder's house. You should see it."

SEARCHES FOR STORAGE SPACE
BD delivers Louise's delayed standing order at the same time as her current one. She now has double the supplies to store, many of which require refrigeration. Her room is overflowing with the extra supplies and she begs other departments to borrow their fridge space.

RETRIEVES DELIVERY
BD delivers Louise's delayed products to the wrong building — again. She loses even more time out of her day walking to the other building to pick up her delivery.

"It's really hard to catch up on backups. We have techs doing double the work and we have to pay them OT and weekend pay."

BURNS BUDGET ON OVERTIME
Louise schedules overtime on the weekend so her staff can make up the backlog of tests. She's not looking forward to telling her boss about the extra pay — her lab is already over budget because her BD rep's yearly cost estimates weren't accurate.

VOICE OF CUSTOMER

Order Fulfillment NPS
Source: Order Fulfillment Survey ECCMID

Direct vs. Distributor Orders
Purchase from BD 37.1% | Distributor 62.9%
Source: Order Fulfillment Survey ECCMID

CSAT: Delivery Status Updates = 3.7 (5 point scale)
Importance vs. Satisfaction Gap
Proactively informs of backorders
Importance | Satisfaction
Source: Order Fulfillment Customer Research Report

CSAT: Delivery Status Updates = 3.2 (5 point scale)
Importance vs. Satisfaction Gap
Delivers order on time
Delivers orders in full
Importance | Satisfaction
Source: Order Fulfillment Customer Research Report

BD Order Fulfillment Performance Rating
Extremely Good 47% | Neutral 33% | Somewhat Good 47%
Source: Order Fulfillment Survey ECCMID (raw data, item 19)

Edith Nixon, MSN,FNP-BC
Vice-president patient care delivery, CVS Minuteclinic

- Align my organization with the company's strategic "plan to win" and brand's purpose to make health care local, simple and helpful
- She has to make operational decisions quickly that can be easily deployed as there is already bad PR on test delays
- Testing partners are experiencing also delays

Management / Decision Maker

COVID Tests per day
1K — 10K

Test conducted per confirmed case
10 — 30

Revenue per test
$50 — $200

"Patient samples collected at our drive-thru testing sites are sent offsite to independent, third-party labs. The increase in cases of COVID-19 in certain areas of the country is causing extremely high demand for tests resulting in backlogs for our lab partners and delays in the processing of patient samples. Due to these factors, it may now take 6-10 days for people to receive their results"

AWARE	BUY	DELIVERY	USE – REORDERING	SEEK HELP
I SEARCH FOR PRODUCTS/SOLUTIONS THAT I CAN TEST IN THE FIELD		**I RECEIVE THE MATERIAL ON TIME AND IN THE RIGHT LOCATION**	**I HAVE A RELIABLE , EASY TO USE AND TRAIN PRODUCT**	**SUPPORT IS AVAILABLE AND KNOWLEADGABLE FOR QUICK RESOLUTION**

Needs & expectations

- The BD COVID solutions deliver on the KPIs/outcomes that drove our purchase decision
- Reliable and easy to use products

- Easy contracting process
- Orders on time and in full
- Being kept informed when product is in back order at the time of the order

- Follow up-support and training from BD experts on performance evaluation
- On-demand and easy to digest reports on BD COVID solutions performance

- Reaching a knowledgeable and live technical support when I need one
- Quick replacement (SLA)
- Timely updates on resolution time

2. Test solution
- The product trial /demonstration data necessary to evaluate product performance

1. Relevant Information
- I find valuable qualitative and easy to digest data on how BD products will support my goals

3. Easy ordering
- I have to order the necessary COVID testing materials from different companies and/or BD divisions

4. Receives order confirmation and ETA
- I don't receive an order confirmation from neither internal buyer nor BD
- I hope for the best and start my 10 day "waiting game" based on other BD products

5. Receives order
I need to ensure all locations have product available for tests

6. Reliable products
- Having products with high reliability that meet uptime expectations

7. Issue resolution
- Knowledgeable and live technical support

Key CX capabilities — Non exhaustive

- Easy to find information and publications on how to continue improving my COVID tests/workflows
- Statistics and insights about differences in test sensitivities and clinical cases

- Order confirmation for the lab key contact including packing list and tracking number
- Proactive communication on ETA by customer
- Layered treatment for customers : By revenue, by subscription, etc
- COVID testing bundles/packages including services to make ordering easier for customers including at home testing kits for sample collection

- Proactive clinical/scientific sessions with customers to monitor outcomes
- Customer success metrics by product type including VOC

- Dispatch system
- Internal escalation SLAs per issue severity
- Escalation updates to share with customers

BD

Ernest Charles M.D.
Chief medical operations officer, Tenet Healthcare

- Dr Charles main driver is to consistently deliver superior patient care
- He wants to maintain Tenet as the top organization in a very competitive environment in the southwest
- His is committed to consistently deliver patient safety and clinical quality across his 65 facilities

Average daily census: 5M — 15M
Net patient revenue: $5B — $20B
HAI cost per year: $500K — $3M

"In my system, surgeons are seeing patients and answering patient questions through electronic media. They are still working and having both virtual visits and responding in a variety of ways to help our patients stay healthy" result of hospital acquired infections (HAI) keep me awake at night."

Importance for conversion

Typical Journey
Alternate Journey

CONVERSION

AWARE | **BUY**

| SEARCH FOR ANSWERS IN TRUSTED SOURCES | IDENTIFIES RELEVANT QUANTITATIVE DATA | EVALUATES VENDOR PORTFOLIOS | ACCEPTS A MEETING WITH SALES TEAM |

Digital needs & expectations

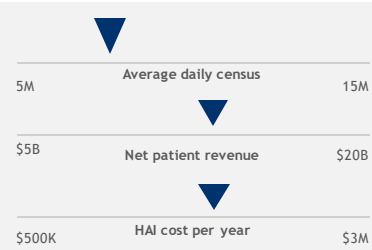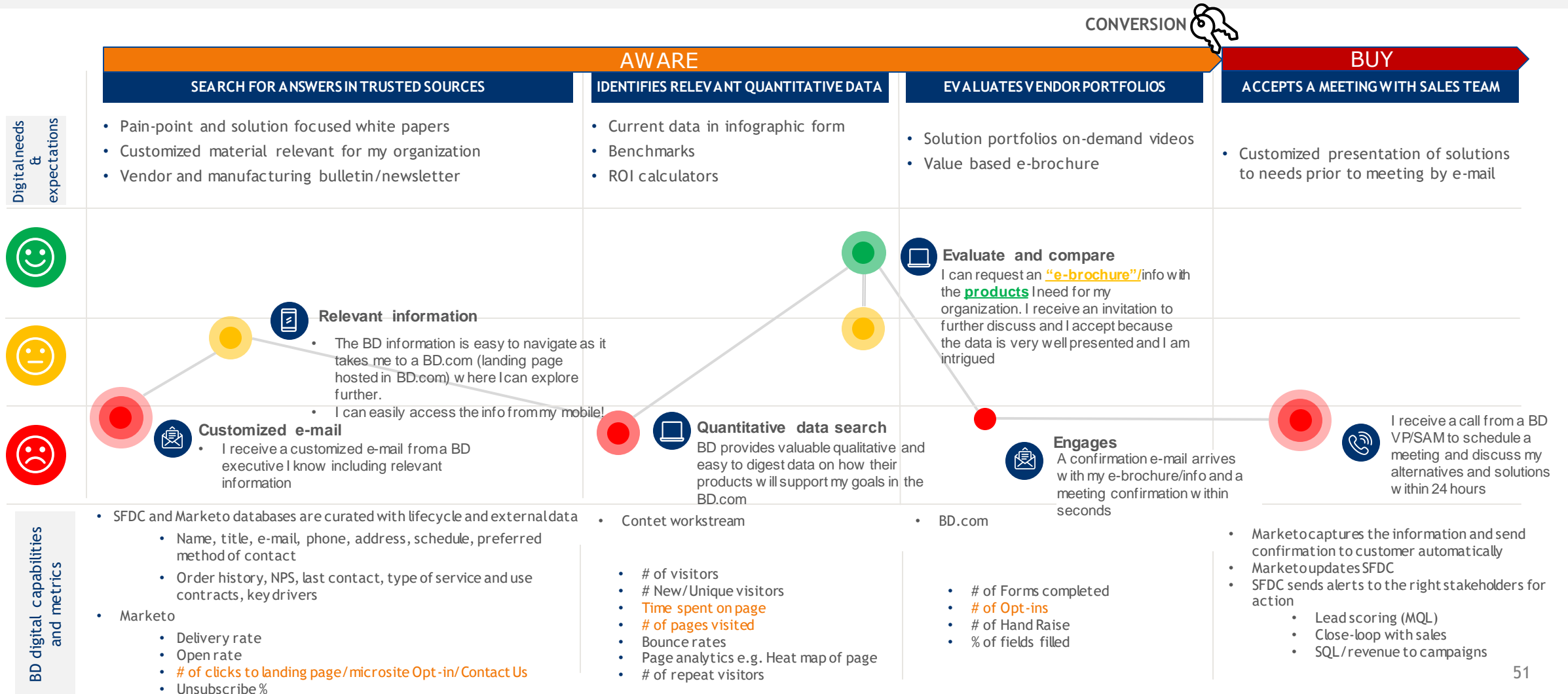| SEARCH FOR ANSWERS IN TRUSTED SOURCES	IDENTIFIES RELEVANT QUANTITATIVE DATA	EVALUATES VENDOR PORTFOLIOS	ACCEPTS A MEETING WITH SALES TEAM
• Pain-point and solution focused white papers • Customized material relevant for my organization • Vendor and manufacturing bulletin/newsletter	• Current data in infographic form • Benchmarks • ROI calculators	• Solution portfolios on-demand videos • Value based e-brochure	• Customized presentation of solutions to needs prior to meeting by e-mail

Relevant information
- The BD information is easy to navigate as it takes me to a BD.com (landing page hosted in BD.com) where I can explore further.
- I can easily access the info from my mobile!

Customized e-mail
- I receive a customized e-mail from a BD executive I know including relevant information

Quantitative data search
BD provides valuable qualitative and easy to digest data on how their products will support my goals in the BD.com

Evaluate and compare
I can request an **"e-brochure"/**info with the **products** I need for my organization. I receive an invitation to further discuss and I accept because the data is very well presented and I am intrigued

Engages
A confirmation e-mail arrives with my e-brochure/info and a meeting confirmation within seconds

I receive a call from a BD VP/SAM to schedule a meeting and discuss my alternatives and solutions within 24 hours

Non exhaustive — BD digital capabilities and metrics

- SFDC and Marketo databases are curated with lifecycle and external data
  - Name, title, e-mail, phone, address, schedule, preferred method of contact
  - Order history, NPS, last contact, type of service and use contracts, key drivers
- Marketo
  - Delivery rate
  - Open rate
  - # of clicks to landing page/microsite Opt-in/Contact Us
  - Unsubscribe %

- Contet workstream
  - # of visitors
  - # New/Unique visitors
  - Time spent on page
  - # of pages visited
  - Bounce rates
  - Page analytics e.g. Heat map of page
  - # of repeat visitors

- BD.com
  - # of Forms completed
  - # of Opt-ins
  - # of Hand Raise
  - % of fields filled

- Marketo captures the information and send confirmation to customer automatically
- Marketo updates SFDC
- SFDC sends alerts to the right stakeholders for action
  - Lead scoring (MQL)
  - Close-loop with sales
  - SQL/revenue to campaigns

gateway to next step

Dr. Carmen Lee
Molecular lab director, VA Medical Center Texas

- Most of her concerns around COVID-19 test accuracy have focused on faulty machinery and companies rushing to bring their offerings to market
- She has to make test choices quickly, speeding test development and setup, and experiencing major changes in workflow
- Daily issues with shortages of staff, reagents, and other necessary supplies.
- In the back of her mind is the thought of how the tests billing process will be as they don't run insurance eligibility before the molecular testing

Management / Decision Maker

COVID Tests per day
1K — 10K

Test conducted per confirmed case
10 — 30

Revenue per test
$50 — $200

"As a lab director, my responsibility is to ensure that every test done at the lab is accurate."

"I am considering 3D printing to supplement our dwindling swab supply"

Impact for customer success

Typical Journey
Alternate Journey

USE – REORDERING | SEEK HELP

| I PLACE AND TRACK THE COVID ASSAY ORDER | I PERFORM THE TESTS ACCORDING TO MY PROTOCOLS AND WORKFLOW | I NEED TO GET ADDITIONAL TRAINING AND SUPPORT WITH MY ASSAY `Proactive` | I NEED HELP CORRECTING MY RESULTS AND FIX MY BD MAX `Reactive` |

Needs & expectations
- Easy ordering process and confirmation
- Orders on time and in full
- Being kept informed when product is in back order

- That the assays and BD Max deliver on the KPIs/outcomes that drove our purchase decision
- Reliable and easy to use products

- Follow up-support from BD experts on performance evaluation
- On-demand and easy to digest "how-to" material and protocol updates for my team

- Reaching a knowledgeable and live technical support when I need one
- Proactive updates on FSE arrival
- Timely updates on resolution time

---

4. Receives order
- I need to enter the inventory and prepare the material for testing

1. Order materials
- I have to order the necessary COVID testing materials from different companies and BD divisions

2. Receives order confirmation and ETA
- I don't receive an order confirmation from neither internal buyer nor BD
- I hope for the best and start my 10 day "waiting game" based on other BD products

3. Checks order arrival status
- I call my Account Executive or customer service for an ETA. This is how I found out that the material is in BO/manual allocation
- I need to escalate this issue with BD management contacts

5. Perform tests
- The reagents are easy to use and I feel they are mostly reliable but continue learning
- I have some issues with BD Max

6. Look for updates/knowledge to keep improving testing protocols
- I browse the internet
- I reach out to my colleagues in other labs
- Call BD with technical questions on the assay and BD Max
- I don't receive proactive information and updates from BD if I don't call

7. Contact BD to solve my technical issue
- The technical service team is very responsive and empathetic
- I would like to have more communication on FSE arrival and resolution communication
- My case was escalated but I don't have an update on resolution

---

Non exhaustive — Key CX capabilities

- Order confirmation for the lab key contact including packing list and tracking number
- Proactive communication on ETA by customer
- Layered treatment for customers : By revenue, by subscription, etc
- COVID testing bundles / packages including services to make ordering easier for customers including at home testing kits for sample collection

- Proactive clinical/scientific sessions with customers to monitor outcomes
- Customer success metrics by product type including VOC

- Easy to find information and publications on how to continue improving my COVID tests/workflows
- Statistics and insights about differences in test sensitivities and clinical cases

- Dispatch system
- Internal escalation SLAs per issue severity
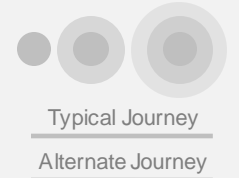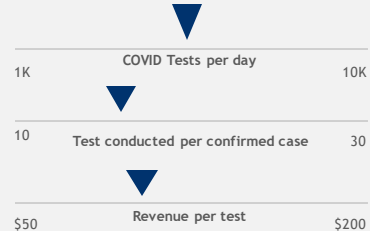- Escalation updates to share with customers

Teka Smith, 28

An **Efficiency seeker,** Clinical lab specialist/technician
Teka works on the blood bench in the lab, and she is focused on completing lab tasks efficiently. She is trained to deal with stressful situations that require quick and accurate turnaround. However, this doesn't mean that the work is easy. Each workday is different, which can make coming to work a little stressful for Teka.

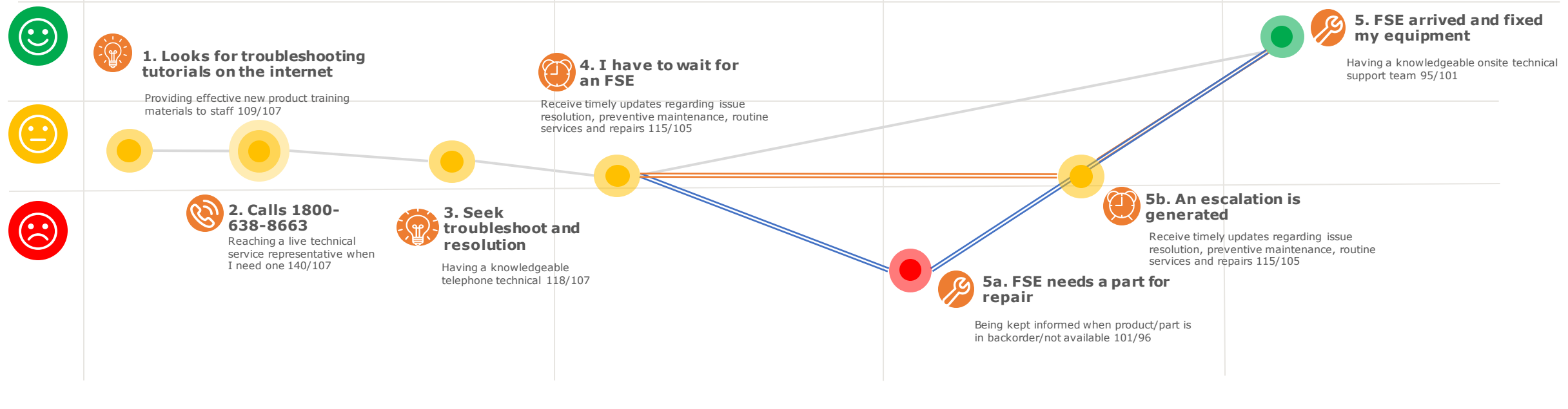|		
<10,000	**Samples per Year**	>1 million
Standalone Systems	**Lab's capabilities**	Highly Integrated
1 Shift	**Shift's**	24/7

"I need to make sure my assigned tasks are completed on time and with 0 errors, the equipment can be a help but sometimes is a pain as I don't have feedback to be sure everything is going well"

Impact for customer success

Typical Journey

Alternate Journey

#Importance/#satisfaction

Initial troubleshooting

Dispatch and visit

Follow up and resolution

Customer needs & expectations

I NEED TO FIND A BD TUTORIAL TO TROUBLESHOOT MY ISSUE	I NEED SUPPORT FROM BD AS I CAN'T FIX THE ISSUE ON MY OWN

- Providing training materials through my preferred channel/method (e.g. online, in-person, apps).
- Reaching a live technical support representative when I need one
- Customer support representatives providing helpful responses in a way that I can understand
- Having a knowledgeable telephone technical support team

I HAVE TO WAIT FOR A FIELD SERVICE SUPPORT ENGINEER AND I NEED TO KNOW WHEN WILL ARRIVE

- Have my visit scheduled immediately
- Receive a confirmation date
- Receive updates on the arrival

MY ISSUE COULD NOT BE SOLVED

- Quick replacement (SLA)
- Timely updates on resolution time
- Issue escalated (Global/R&D)

AVAILABLE AND KNOWLEADGABLE SUPPORT IS AVAILABLE FOR QUICK RESOLUTION

- Having a knowledgeable onsite technical support team
- Customer support provides timely updates regarding issue resolution preventive maintenance, routine service and repairs.

1. Looks for troubleshooting tutorials on the internet

Providing effective new product training materials to staff 109/107

2. Calls 1800-638-8663

Reaching a live technical service representative when I need one 140/107

3. Seek troubleshoot and resolution

Having a knowledgeable telephone technical 118/107

4. I have to wait for an FSE

Receive timely updates regarding issue resolution, preventive maintenance, routine services and repairs 115/105

5. FSE arrived and fixed my equipment

Having a knowledgeable onsite technical support team 95/101

5a. FSE needs a part for repair

Being kept informed when product/part is in backorder/not available 101/96

5b. An escalation is generated

Receive timely updates regarding issue resolution, preventive maintenance, routine services and repairs 115/105

Leading Company

1. Copan, Focus diagnostics, Sekisui (109/120)
2. Copan 140/113, Focus diagnostics 140/111, Sekisui 140/112, Oxoid (140/108)
3. Abbott 118/113, BioMérieux 118/114, Copan 118/120

4. Copan 115/113, Cepheid 115/108 Focus diagnostics 115/114

5. Abbott 95/110 , Copan 95/120, Hologic 95/108, Oxoid 95/120, Sekisui 95/120
   a. Copan, Focus diagnostics, Sekisui (101/120)
   b. Copan 115/113, Cepheid 115/108 Focus diagnostics 115/114

Lukas Müller, 30

An **Efficiency seeker,** Clinical lab specialist/technician

Lukas works on the blood bench in the lab, and he is focused on completing lab tasks efficiently. He is trained to deal with stressful situations that require quick and accurate turnaround. However, this doesn't mean that the work is easy. Each work day is different, which can make coming to work a little stressful for Lukas.

	<10,000	**Samples per Year**	>1 million
	Standalone Systems	**Lab's capabilities**	Highly Integrated
	1 Shift	**Shift's**	24/7

"I need to make sure my assigned tasks are completed on time and with 0 errors, the equipment can be a help but sometimes is a pain as I don't have feedback to be sure everything is going well"

Impact for customer success

Typical Journey

Alternate Journey

Initial troubleshooting | Dispatch and visit | Follow up and resolution

Customer needs & expectations

| I NEED TO FIND A BD TUTORIAL TO TROUBLESHOOT MY ISSUE | I NEED SUPPORT FROM BD AS I CAN'T FIX THE ISSUE ON MY OWN | I HAVE TO WAIT FOR A FIELD SERVICE SUPPORT ENGINEER AND I NEED TO KNOW WHEN WILL ARRIVE | MY ISSUE COULD NOT BE SOLVED | AVAILABLE AND KNOWLEADGABLE SUPPORT IS AVAILABLE FOR QUICK RESOLUTION |

- Providing training materials through my preferred channel/method (e.g. online, in-person, apps).
- Reaching a live technical support representative when I need one
- Customer support representatives providing helpful responses in a way that I can understand
- Having a knowledgeable telephone technical support team

- Have my visit scheduled immediately
- Receive a confirmation date
- Receive updates on the arrival

- Quick replacement (SLA)
- Timely updates on resolution time
- Issue escalated (Global/R&D)

- Having a knowledgeable onsite technical support team
- Customer support provides timely updates regarding issue resolution preventive maintenance, routine service and repairs.
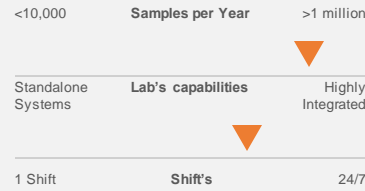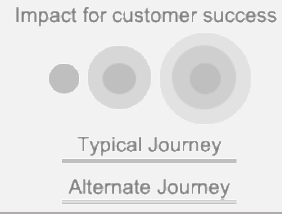
2. Calls 1800-638-8663
Reaching a live technical service representative when I need one 100/106

4. I have to wait for an FSE
Receive timely updates regarding issue resolution, preventive maintenance, routine services and repairs 97/105

5b. An escalation is generated
Receive timely updates regarding issue resolution, preventive maintenance, routine services and repairs 97/105

3. Seek troubleshoot and resolution
Having a knowledgeable telephone technical 100/106

1. Looks for troubleshooting tutorials in the internet
Providing effective new product training materials to staff 97/101

5a. FSE needs a part for repair
Being kept informed when product/part is in backorder/not available 105/102

5. FSE arrived and fixed my equipment
Having a knowledgeable onsite technical support team 108/101

Leading Company

1. Becman Coulter , Copan, Quidel, Roche, Thermofisher (97/128)
2. Quidel 100/118, Thermo Fisher 100/107, Mast Diagnostics 100/107

3. Abbott 100/112, BioMérieux, Cepheid, Hardy, Hologic, Quidel and Remel 100/128
4. Beckman Coulter 97/120 ; Genmark, Hardy 97/128

5. Focus Diagnostics 108/128, Hardy, Sekisui, Thermo Fischer 108/128
   a. Cepheid, Focus Diagnostics, GenMark, Quidel 105/128
   b. Beckman Coulter 97/120 ; Genmark, Hardy 97/128

#Importance/#satisfaction

Long term care customers – POC

AWARE	BUY	IMPLEMENT/ACTIVATE	USE – REORDERING	SEEK HELP

Customer needs & expectations

I SEARCH FOR PRODUCTS/SOLUTIONS THAT HELP ME TO DELIVER MY EXPECTED RESULTS AND I CAN TEST	I RECEIVE THE MATERIAL ON TIME , IN FULL AND IN THE RIGHT LOCATION	I HAVE A FAST, RELIABLE , EASY TO USE AND TRAIN PRODUCT	AVAILABLE AND KNOWLEADGABLE SUPPORT IS AVAILABLE FOR QUICK RESOLUTION
• BD offers a product trial or demo data to evaluate the performance • BD provides a complete solution that will help us to solve our clinical/operational/diagnostic issues.	• I can anticipate the connectivity LOE • I can track my order • Being kept informed when product is in back order at the time of the order	• Follow up-support and training from BD experts on performance evaluation • On-demand and easy to digest reports on BD COVID solutions performance (connectivity)	• Reaching a knowledgeable and live technical support when I need one • Quick replacement (SLA) • Timely updates on resolution time

2. Test solution
- The product trial /demonstration data necessary to evaluate product performance

6. Effective training
- I receive effective new product training and materials to staff

1. Relevant Information
- I find valuable and easy to digest data on how BD products will support my goals

44% Product NPS (Partial Dec 21)

3. Easy ordering
- Offering an easy product ordering process

7. Reliable products
- Having products with high reliability that meet uptime expectations

61% Service(TSS) NPS (Partial Dec 21)

4. Receives order confirmation and ETA
- I receive an order confirmation from either my buyer, the distributor or BD

5. Receives complete and accurate order
- I need to ensure all locations have product available for tests and the orders are complete

8. Effective customer support
- Available and knowledgeable reps

CX capabilities to be developed Or In progress

- **Product and sales info microsite:** (in development)
  - Marketo/SFDC – Capture complete and accurate contact information
  - Easy ordering (e-business/e-commerce)
  - Omnichannel – Agency to support the transformation
- **Customers:**
  - Telesales, POC sales, microsite, e-mail for Marketo
- **Distributors:**
  - Capture customer's contact information (TBD) Provide the same experience as direct customers
- **VOC:** Qualtrics (IDS CX Team) – Top of mind/Purchase experience

- **Order confirmation:**
  - Order confirmation for key stakeholder including packing list and tracking number, ETA – Available TBD
- **Order status**
  - Self-service tracking – Salesforce communities – Available on TBD
- **VOC:** Qualtrics (IDS CX Team) Delivery experience

- **Training and Knowledge management**
  - E-learning/Webinars (system available)
  - Proactive clinical/scientific sessions with customers to monitor outcomes
- **VOC:** Qualtrics (IDS CX Team) product and training experience

- **Specialized call canters**:
  - Medical information – Off label
  - Customer service
  - Technical service

Confidential—For Internal Use Only

BD

Appendix

Persona Name

Short description of this persona

Descriptive text that explains a little bit about who the persona is. This will provide background context for the information below and help your audience develop empathy for the persona.

Low	ATTRIBUTE #1	High
Rarely	ATTRIBUTE #2	Always
None	ATTRIBUTE #3	All

"A quote for persona that demonstrates emotion and/or job to be done. Make sure it sounds like something a real customer would actually say."

Importance to Customer

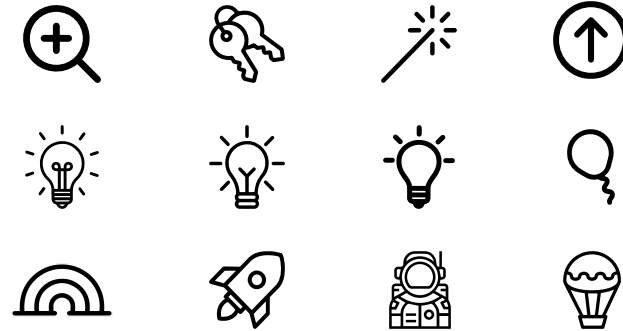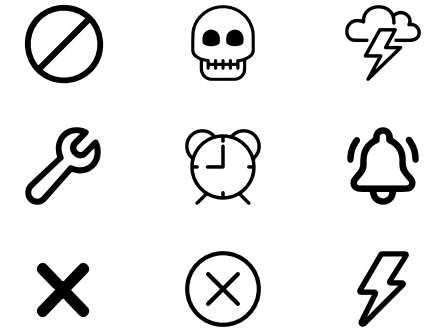Typical Journey

Alternate Journey

Needs & Expectations	PHASE 1 (Describe in customers' language)	PHASE 2	PHASE 3	PHASE 4
	• Customer needs • Customer expectations	• Customer needs • Customer expectations	• Customer needs • Customer expectations	• Customer needs • Customer expectations

Step title
Step description, which can be a bit longer. What is happening at this point in the journey? Be sure to use customers' language.

Step title

Step title

If desired, use callouts to connect text boxes to dots

If desired, use callouts to connect text boxes to dots

If desired, use callouts to connect text boxes to dots

Metrics of success				
	• "Customer quotes" • C-SAT, NPS • Social Media Sentiment • Metrics / KPIs	• "Customer quotes" • C-SAT, NPS • Social Media Sentiment • Metrics / KPIs	• "Customer quotes" • C-SAT, NPS • Social Media Sentiment • Metrics / KPIs	• "Customer quotes" • C-SAT, NPS • Social Media Sentiment • Metrics / KPIs

Your Logo

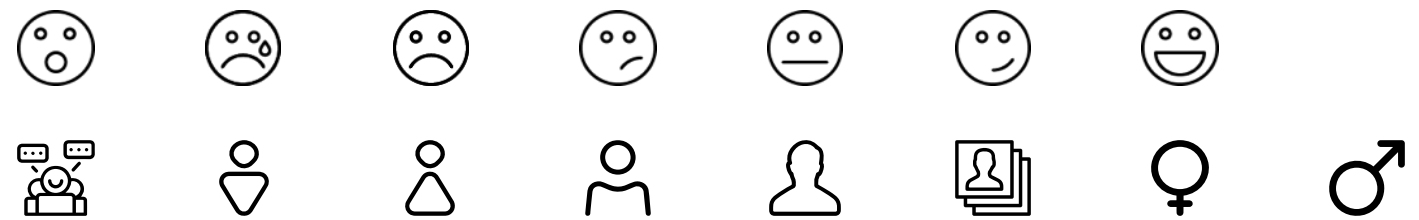# Sample Icons

Journey Steps & Lines
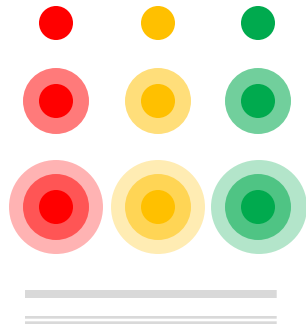
Ideas & Opportunities

Pain Points

Moments of Truth
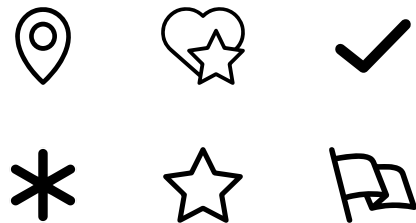
Emoticons & People

Additional Icons

Even More Icons!

Settings
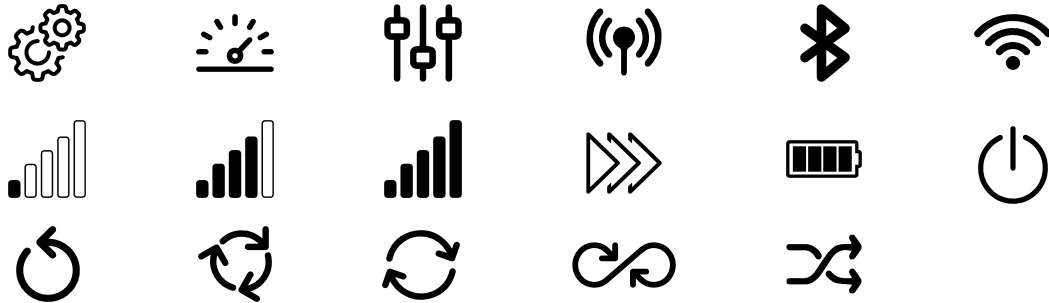
Symbols & Objects

Outside
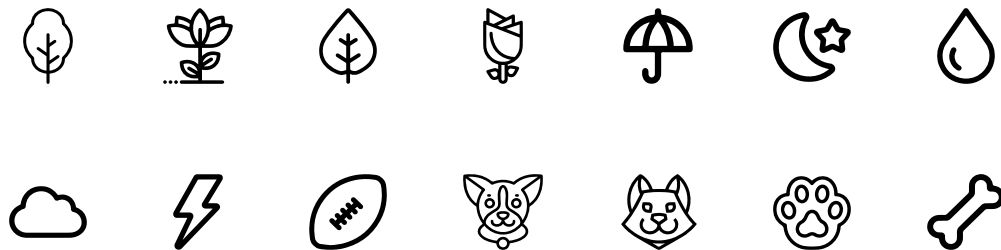
SENIOR LEADERSHIP – TOUCHPOINTS

Content / Phases	AWARENESS	EXPLORATION	EVALUATION	VENDOR SELECTION
CONVERSATION THEMES	• Regulatory and insurance change updates • Healthcare reform, compliance • Lowering cost • Standardizing and consolidating care delivery • Improving clinical outcomes • Healthcare industry trends and perspectives • Care team	• About the vendor • Product service solution overview • Impact to bottom line • Demonstration of clinical outcomes • Integrating clinical IT across the care continuum: data, insights, security	• Product demonstrations and trials • Navigate potential alternatives • Financial justification/ROI • Clinician opinions • Data demonstrating value	• Options • Proof of concept • Risk sharing • Ongoing trends + optimization • New offerings + features
CONTENT TYPES	Pain-point-focused white papers Thought leadership articles, videos Webinars Reports Infographics E-books Blogs Podcasts	Solution-focused white papers Solution + Services overviews Best-practice guides Overview videos Technical briefs Peer opinions Product reviews	Value-based white papers Product demo/tour videos Detail brochures, catalogs Technical details/deep dive	On-boarding brochures/collateral Training/educational content Clinician role-specific information Patient-specific information Email newsletter ROI
EVENTS AND TOOLS	Benchmark assessment tools In-person events and demos	Product overview brochures Digital events and on-demand videos	Series of calls and meetings with reps ROI calculator	Vendor rep visits
STAPLE CONTENT	Customer case studies Recommendations and references from reputable third parties Establishing a fit between the vendor's solution and my institutional operations Healthcare industry trends and perspectives (thought leadership) in my specialty area			