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Using Digital & Tech to manage the COVID-19 crisis

How digital mitigates risks and creates chances in the Corona crises

MARCH 2020

COVID-19 with significant impact on companies – focus so far on protecting measures, less on business action

COVID-19 will hurt revenues & earnings

- 60% of companies expect negative revenue and earnings impacts in FY 20
- ~70% of companies expect normalcy to return within 6 months

Significant issues in supply chain and labor

- >60% of companies already faced supply chain issues
- Further increase expected as more issues already reported in regions where outbreak spread first

Lack of business measures taken so far

- Most companies are active in ensuring employee safety
- But only 1/3 have taken measures to capture demand rebound

Long-term effect on remote working

- Majority of companies want to change remote working policies and improve crisis response long-term
- Some companies already expediting their plans

Lessons from China- leverage the power of digital to mitigate risks and even create new chances

Ensure life and work continue with DIGITAL tool

- Medical, utilities, logistics, food supply were all required to operate at full capacity with price control
- Essential services boomed digitally:
  - Medical consultation: HaoDaiFu (好大夫)served **1.68M ppl in 17days**[1] , daily registration went up **350%**
  - Grocery delivery: JD fresh delivery went up **226%**[2]
  - Education: top 6 education apps totaled **45M downloads**[3]

Students are taking the online P.E. class at home

Deliverymen buy vegetable in the supermarket and use contactless delivery to customers

Current COVID-19 challenges…

- Supply chain issues
- Significant constraints for working environment
- Dramatic shift of consumer behavior
- Time offset between global regions
- Financial performance and cash risks
- High uncertainty how crisis will evolve
- …

…can be overcome by inherent digital & tech advantages

- **Remote** and **new ways of working**

- Transparency and **data analytics** for **decision making**

- Data driven **supply chain** steering based on **IoT and analytics**

- **Online customer engagement** for sales/after sales using **eCommerce and platform solutions** (with personalized offerings)

- **Performance improvement** through digitalization incl. process automation

Digital & Tech levers for responding to crisis

Now
Protect your people, ensure continuity, and mitigate short-term losses

1. **Analytics driven transparency** (people, finance, supply chain)
2. **Analytics and AI simulations** (demand, supply chain, cash, patient finder, pricing)
3. **Actionable steering cockpit**
4. **New remote ways of working** (tools, principles, practices)

Next
Pro-actively seize demand rebound and bring business back on track

1. **Push of online channels, distribution, inside sales, digital demand**
2. **Digital marketing & personalization** (eCommerce)
3. **Dynamic supply chain planning**
4. **Demand/stock – global sourcing platform**

Later
Build advantage by enhancing business resilience and performance

1. **Performance improvement through digitization/cost-out**
2. **Analytics based reconfiguration of supply chain**
3. **Business model innovation & digital driven go-to-market approach**
4. **IT cost reduction & simplification**

Increase resilience and value from Technology

1. Continuity
   Remote working
   Cyber resilience
2. Portfolio triage and acceleration of critical business outcomes
3. Agile ways of working, critical technology capabilities, sourcing & ecosystem
4. Data & digital platforms for speed and agility

Detailed approaches across levers available upon request

Digital & Tech selected examples for responding to crisis

Now

2 Analytics and AI simulations - Ebola Patient Finder

Client situation
Ebola outbreak in West Africa as enormous global challenge in 2015. BCG supported global health NGO.

Objective
Control epidemic outbreak through rapid diagnostic testing

Impact delivered
Outbreak control and savings impact

Next

3 Dynamic supply chain planning - E2E supply chain visibility

Client situation
Global biopharmaceutical company with a lack of coordination between plants and work centers

Objective
Optimize manufacturing and reduce costs through process improvement

Impact delivered
3-5% cost decrease

Later

1 Performance improvement – Digital Transformation program

Client situation
Global mining company with need to massive create saving across in all functions

Objective
Define and execute comprehensive transformation program leveraging digital and agile working mode

Impact delivered
>30% functional overhead cost savings

Increase resilience and value from Technology

1 Continuity Remote working Cyber resilience – BCGs cybersecurity best practices

Client situation
COVID-19 is forcing companies shifting from office operations to remote working
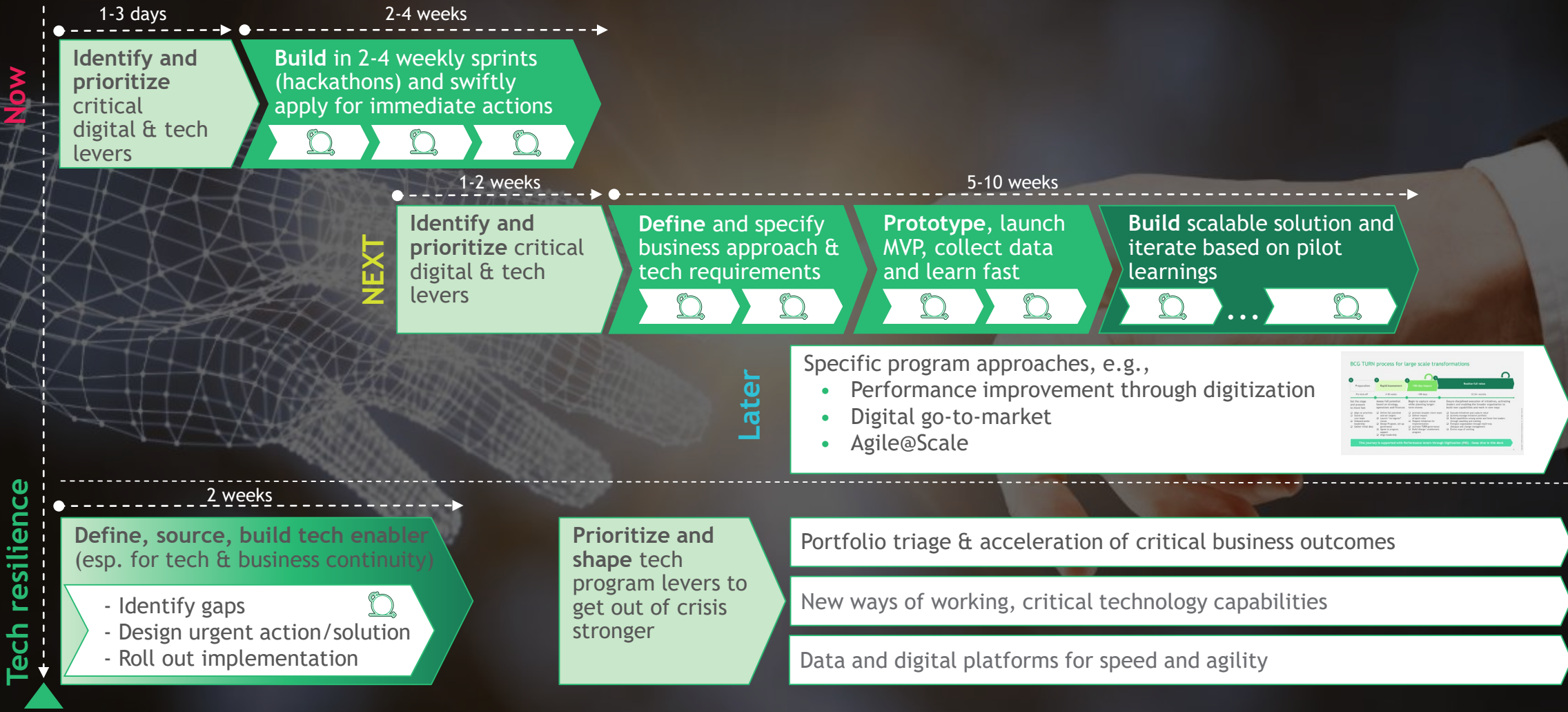
Objective
Minimize risk of cybersecurity crisis during pandemic

Impact delivered
Implement 7 actions and communicate rationales to secure remote operations during pandemic

How to approach COVID-19 and use digital to manage this special situation

Now

1-3 days | 2-4 weeks

Identify and prioritize critical digital & tech levers

Build in 2-4 weekly sprints (hackathons) and swiftly apply for immediate actions

NEXT

1-2 weeks | 5-10 weeks

Identify and prioritize critical digital & tech levers

Define and specify business approach & tech requirements

Prototype, launch MVP, collect data and learn fast

Build scalable solution and iterate based on pilot learnings

...

Later

Specific program approaches, e.g.,
- Performance improvement through digitization
- Digital go-to-market
- Agile@Scale

Tech resilience

2 weeks

Define, source, build tech enabler (esp. for tech & business continuity)
- Identify gaps
- Design urgent action/solution
- Roll out implementation

Prioritize and shape tech program levers to get out of crisis stronger

Portfolio triage & acceleration of critical business outcomes

New ways of working, critical technology capabilities

Data and digital platforms for speed and agility

DigitalBCG: Strong Digital capabilities with significant scale

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> 4K
Digital projects in last two years

~1/3
Revenue share of Digital

10
Innovation centers for operations

11
Incubation hubs and labs

300+
Digital thought leadership publications

~4,000 Digital business consultants[1]

~800 data scientists & analytics experts

~650 IT experts and IT architects
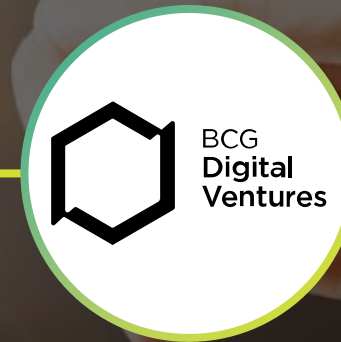
~750 Digital business builders

VC arm connecting startups & corporations

1. Thereof 550+ in Technology Advantage practice area

Leveraging Digital & Technology to manage the COVID-19 situation

Case vignettes

Selected Case Samples - Now

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Network analysis

Assess dependencies within banks' client base, determine supply chain impacts

Estimate time-to-wall

Assess liquidity situation of individual clients based on changed inflows/outflows

Prioritize experts

Highlight special interest cases to be assessed by human experts

Virtual Analytics SWAT Team supports bank's COVID-19 response team with data insight

Individual client level

Portfolio steering level
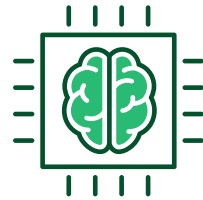
Real-time client level signal engine based on transactional data
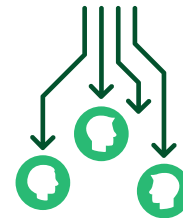
Revised **mitigation measures** to be applied to individual clients

Portfolio signal generator to update inputs to regular bank steering systems

Revised **mitigation levers for overall bank steering**

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Client situation

Ebola outbreak in West Africa presented enormous global challenge in 2015. BCG supported global health NGO.

Objective

Control epidemic outbreak through rapid diagnostic testing

Impact delivered

Outbreak control and savings impact

BCG created transparency using advanced analytics for EBOLA detection

Ebola outbreak under control...
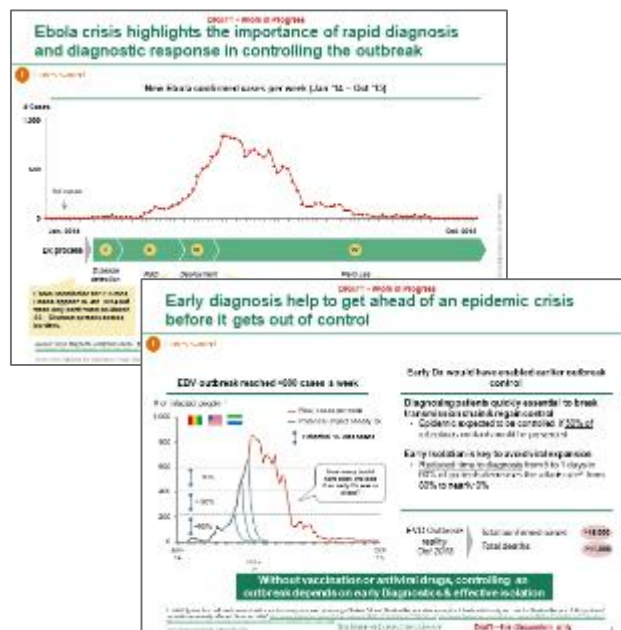
...due to AA Diagnostics

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Now
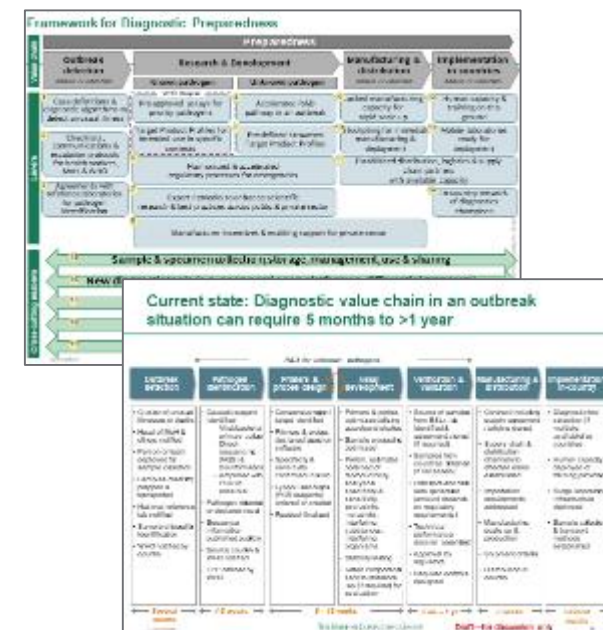
Client situation

Pharma client needs to manage risk of not being able to supply critical medication to patients at the end of a supply chain

Objective

Maintain constant supply of finished goods despite crisis in certain regions

Impact delivered

Decreasing costs

BCG helped Pharma client to manage supply chain disruption with AI

Step 1: Fully integrate data on logistics, external supply and replenishment

- Fully linked-up data, incl. batch genealogy, stock levels, replenishment data and CMO data

Step 2: Enhance Batch Tracer and stress-test statistics

- Procure and integrate 'product origin' information as well as stock & replenishment data into the Batch Tracing Algorithm as a critical enabler to analysis

Step 3: Enhance SSO by identifying key SKUs at risk under different lead-time disruption scenarios

- Building on the Safety Stock Optimizer Monte Carlo Simulation work, identify materials that flow through affected countries
- From this list, identify materials most at risk of Lead Time Disruption

Step 4: Model suppliers most at risk, model impact using new approach

- Model suppliers most at risk of COVID-19-related delays, taking into account current stock (criticality) and replenishment (urgency)
- Construct detailed 'heatmap' views and priority areas for risk mitigation

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Client situation

Clients face uncertain situation with no prognosis on pandemic evolvement

Objective

Survive financial tsunami of Corona crisis and manage cash

Impact delivered

Experience from >250 Client cases

BCGs actionable cash management cockpit helps to survive Corona crisis

0	1	2	3	4
Business strength	**Develop scenarios**	**Manage cash**	**Public support**	**Execute program**
Preserve top-line	Define relevant scenarios	Set up cash office	Screen state-aid programs	Set up your war room

Liquidity planning tool
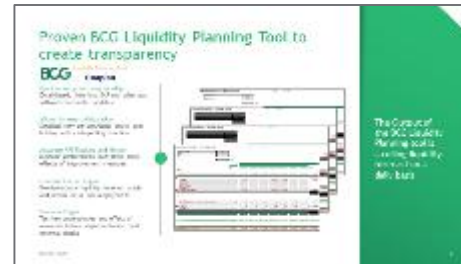
Performance tracking tool

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Client situation

Support the management of Covid-19 emergency in a large Italian Bank

Objective

Address immediate priorities first (e.g. employee safety) and get ready for recovery and rebound

Impact delivered

80-85% adoption of smart working policies across all employees
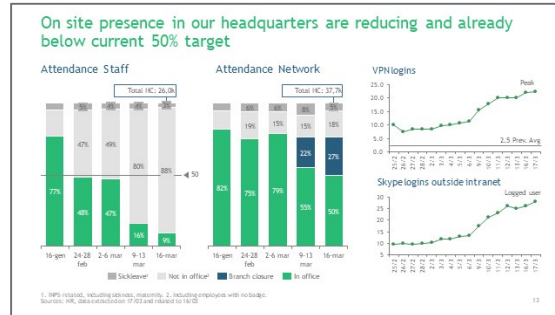
BCG supports Italian Bank to prepare for upcoming months through Smart working

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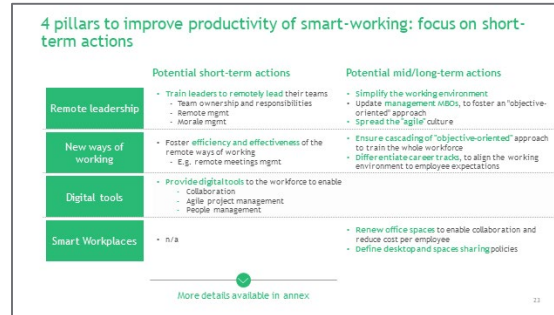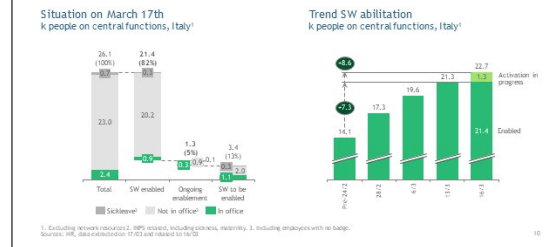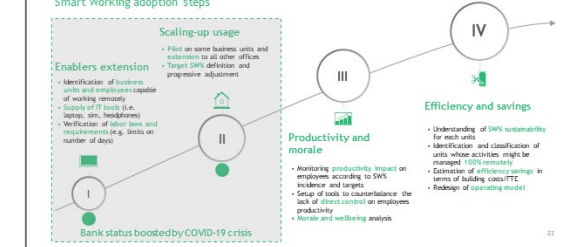
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Detailed approaches across levers available upon request

Next Generation Sales with digital customer journey essential for rebound

Client situation

B2B customers expect rich & deep online info: > 70% prefer limited sales rep interaction
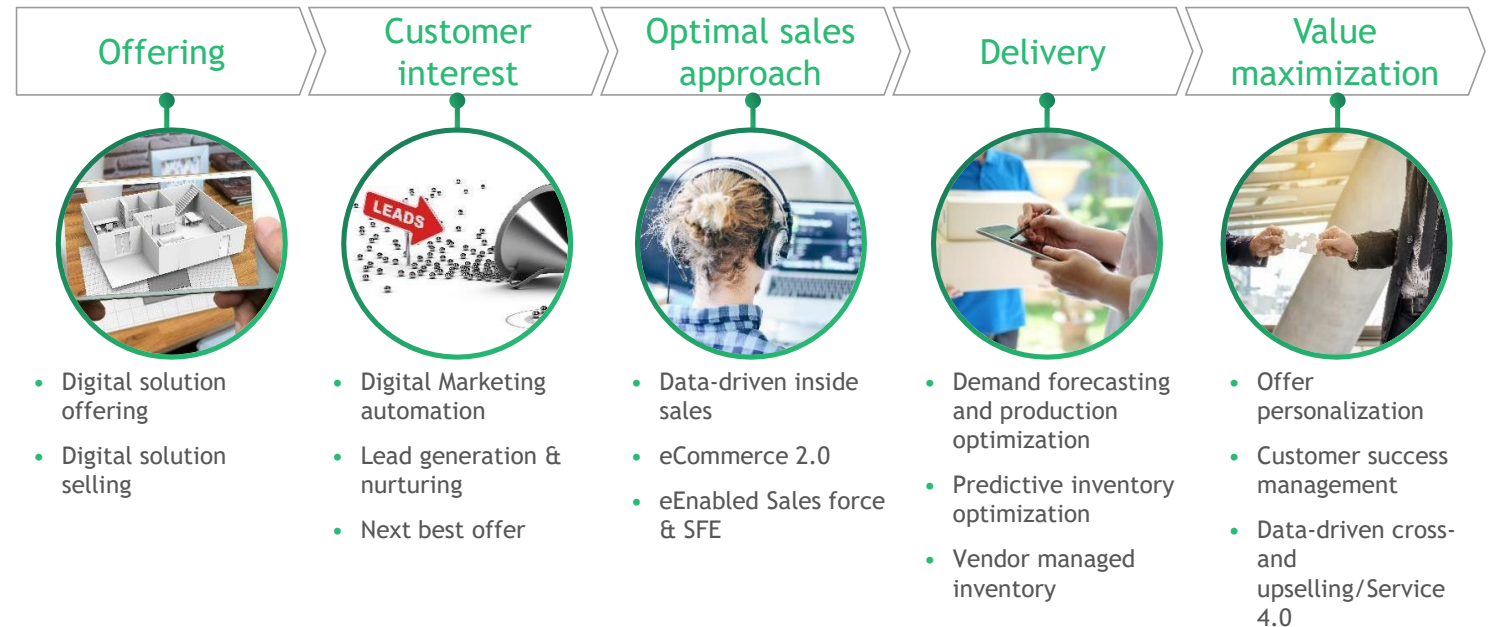
Objective

Omnichannel orchestration of the entire customer journey

Impact delivered

~3-5ppt EBITDA margin and 10-20% top-line growth

Offering	Customer interest	Optimal sales approach	Delivery	Value maximization

Offering
- Digital solution offering
- Digital solution selling

Customer interest
- Digital Marketing automation
- Lead generation & nurturing
- Next best offer

Optimal sales approach
- Data-driven inside sales
- eCommerce 2.0
- eEnabled Sales force & SFE

Delivery
- Demand forecasting and production optimization
- Predictive inventory optimization
- Vendor managed inventory

Value maximization
- Offer personalization
- Customer success management
- Data-driven cross- and upselling/Service 4.0

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Client situation

COVID-19 radically affects commercial pillars

Objective

Build resilience and amplify rebound

Impact delivered

BCGs proprietary Supercharger tool

Digital Marketing "Supercharger" helps to build resilience and amplify rebound

4 Pillar Marketing approach

1 _Cross-functional teams_

2 _Agile budgets & media spent_

3 _Investments in E-Com, digital_

4 _Refresh branding strategy_

Context: COVID-19 rapidly impacting commercial pillars...

...must move quickly to push both "defense and offense"

Supply chain and demand shocks
Demand waves and supply inconsistency across categories/geographies

Atypical media economics
Abnormal media demand will drive abnormal media costs and performance

Rapid acceleration to e-commerce
Consumer shift to digital purchase and pathways potentially permanent

Occasion and demand preferences shift
Consumption shifts from OOH to in-home impacts potential value propositions

"Make or break" brand associations
Opportunity and risk in driving brand during crisis; must reflect authentic purpose

Put in place cross-functional "Supercharger" team to accelerate priority initiatives at speed

Make agile budgets and test and control must-haves to optimize media spend ROI for demand/supply shifts by market and channel

Accelerate investments in e-commerce, digital to reflect "new normal" mix and importance of digital

Refresh or rebuild comms and branding strategy across campaigns for months to reflect edge scenarios

ACTION PLAN: Adopting "Supercharger" in Marketing

1 Organize and co-ordinate
Install agile, cross-functional supercharger team:
- **Tighten cadence** with stakeholders (daily / weekly) to manage adjustments in real time
- **Communicate:** Disseminate crucial demand signals to rest of business
- **Coordinate:** Sync rapid testing initiatives and make bold moves based on emerging data
- **Agile budgets:** Put in place agile mechanism to shift investments to higher ROI areas

2 Re-think existing plan
Strategically re-allocate investments across plan:
- **Stop what's broken:** Pull spend where supply is problematic or experiences can damage brand
- **Invest into growth:** Push spend to geographies and categories where and when demand waves peak
- **Renegotiate pricing** with vendors across media and tech to reflect new realities
- **Capture value plays:** Shift to digital channels with high availability / inventory and user stickiness; avoid high sentiment channels

3 Build resilience now
Capture growth in areas of immediate opportunity:
- **Maximize e-comm:** Pull forward necessary investments in e-comm / digital to meet demand
- **Adjust dynamically:** Closely link marketing and merchandizing to match campaigns and inventory
- **Capitalize on unplanned opportunities:** Double down on offerings that address new market needs
- **Run test and learn pilots:** Navigate fluctuating demand through rapid pilots and use the moment to embed an agile, test and learn model

4 Prepare for the rebound
Invest in a foundation from which to accelerate:
- **Baseline scenarios:** Plan for "what ifs" in near term, medium term; understand the edge-cases
- **Detect recovery and drive rapid response:** Identify markets, products, categories, channels showing spikes and invest into recovery areas
- **Reassess planned comm strategy:** Plan for "new normal" for messaging on launches and campaigns
- **Invest in digital capabilities:** Take advantage of burning platform to make needed improvements

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Client situation

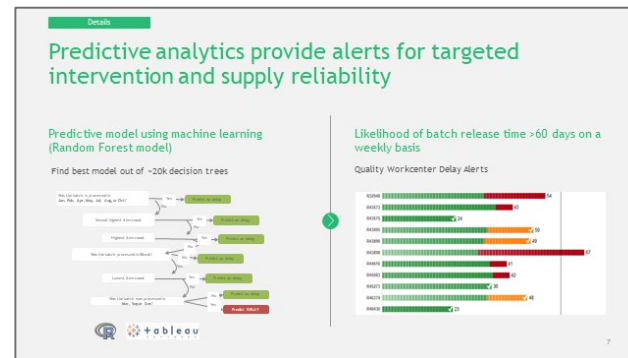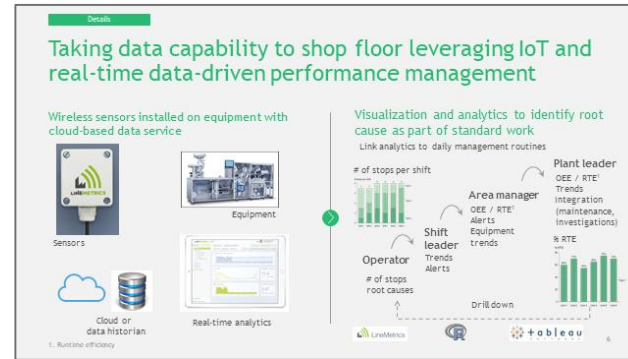Global biopharmaceutical company with a lack of coordination between plants and work centers

Objective

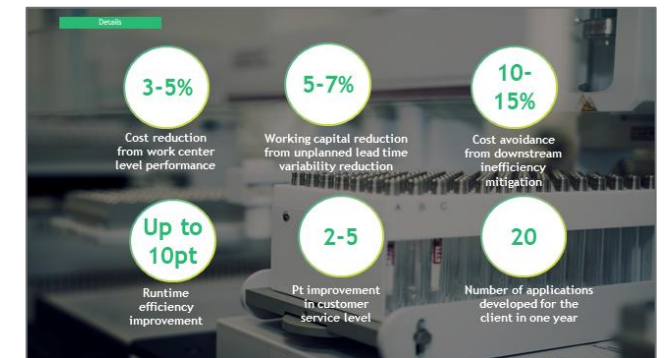Optimize supply chain / manufacturing network and reduce costs through process improvement

Impact delivered

3-5% cost decrease

End-to-end supply chain visibility enables to manage through the COVID-19 crisis

Taking data capability to shop floor leveraging IoT and real-time data-driven performance management

Predictive analytics provide alerts for targeted intervention and supply reliability

Cost improvement and efficiency gains

- **IoT wireless sensors** with cloud-based data service to minimize disruption
- **predictive model** for likelihood of batch delay
- **statistical inventory optimization**

3-5%	5-7%	10-15%
Cost reduction from work center level performance	Working capital reduction from unplanned lead time variability reduction	Cost avoidance from downstream inefficiency mitigation
Up to 10pt	2-5	20
Runtime efficiency improvement	Pt improvement in customer service level	Number of applications developed for the client in one year

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Later

Client situation

Organizations globally under massive performance pressure after COVID-19 disruption of demand and supply

Objective

Structured assessment of digital performance levers and proven tool box to sustainably tap potentials

Impact delivered

5-15% revenue uplift & 5-30% cost reduction per improved domain

PID – digital as key lever for performance improvement to become future proof

BCGs PID framework identifies digital levers, benchmark and prioritizes

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Later

Call Center automation increasingly important due to push of online channels

Client situation

Contact centers experiencing a perfect storm of high demand & disrupted resource availability

Objective

Bring demand under control whilst ensuring employees are protected and prepare for future after crisis

Impact delivered

Successful crisis mgmt; 30% cost savings, transformed experience, and top-line growth

Immediate measures	Long-term measures

Establish SWAT team to respond in timely manner with changes to ops priorities, processes & policies
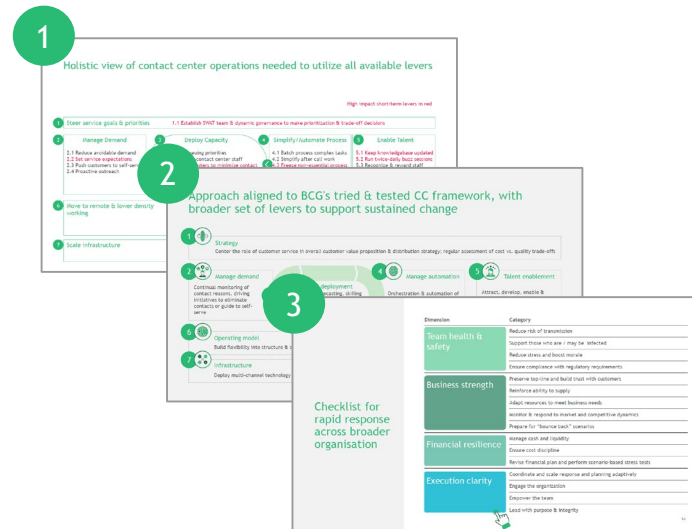
Different ways of delivering customer service and interacting with the customer via Customer Service 4.0

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Client situation

Food distributor in US faces challenging freight market conditions and declining supply chain productivity

Objective

Solutions for outbound routing optimization, inbound lanes design, labour scheduling at DCs and network optimization

Impact delivered
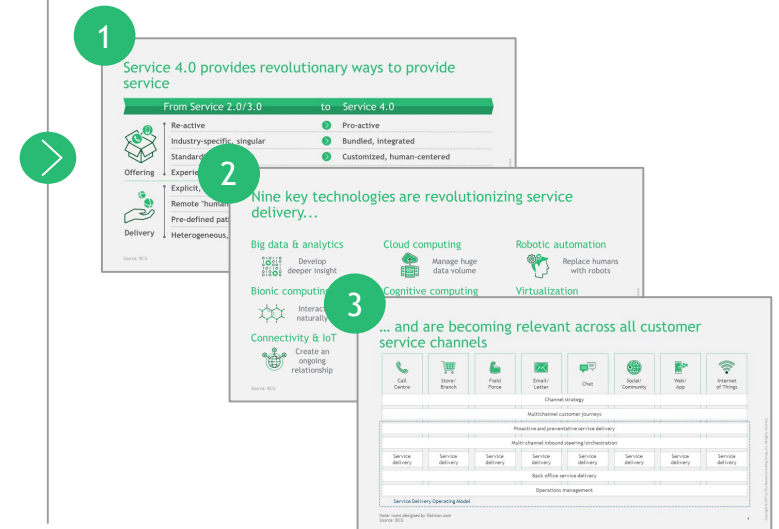
$100m EBIT increase

Gammas supply chain transformation approach leads to significant EBIT increase

Supply chain transformation supported by 3 tools:

1. Outbound routing optimization
2. Distribution center labor scheduling
3. Inbound lanes design and optimization
3. Network optimization

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Client situation

Explore investment opportunities to extend presence in the value chain and into Chinese market

Objective

Deliver in-market proof of personalized end-to-end digital eyewear solution to Chinese consumers

Impact delivered

Built vertical venture within 15 months

Develop e2e vision care provider to offer personalized eye care services & eyewear solutions

optize

For business partners:

- **Professional**: Regular on-site vision care with advanced equipment and technology
- **Efficient**: Vision program specialists to organize tailored services and events
- **Considerate**: Sponsoring of B2B2C vision care to improve health and productivity

For end consumers:

- **Convenient**: Accessible vision care services with virtual try-on of spectacles on mobile app
- **Personalized**: AI enables smart style recommendations and optimal fitting of spectacles
- **End-to-end**: Dedicated space to track and maintain a digital record of the vision profile

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Client situation

Digital/IT acts as an enabler for cost saving and operational excellence, whilst also being challenged

Objective

Achieve cost excellence in the IT Function

Impact delivered

4 levers with 5-15% cost optimization potential each

IT cost reduction & simplification via 4 levers to manage increasing cost pressure

1
Run cost optimization
~10%

- Review service levels
- Adapt Outsourcing/ offshoring ratio
- Automation of tasks (e.g. chat bots for first-level-support)

6-12 month

2
Build cost optimization
5-10%
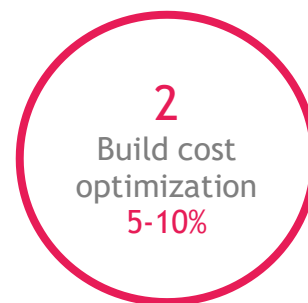
- Review of project portfolio for fulfillment
- Enable project portfolio mgmt.
- Move from waterfall process to agile & MVP-approach

6-12 month

3
Architecture optimization
5-15%
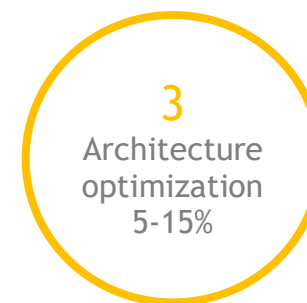
- Move towards cheaper applications
- Reduce degree of software customization
- Rationalization of application landscape

~24 month

4
Organizational optimization
5-10%

- Optimize non-productive IT roles
- Shift capabilities towards value adding activities
- Cluster resources in centers of excellence

6-18 month

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Detailed approaches across levers available upon request

Client situation

COVID-19 is forcing firms to ensure readiness of their IT infrastructure to effectively operate without disruption

Objective

Lay out a rapid sprint approach to enable clients to identify and address most critical gaps in IT capabilities

Impact delivered

Define, source, build tech enabler for tech & business continuity

Technology Resilience: Rapid Sprint to Address Implications of Covid-19 Response

Changes to customer journeys and operational processes will drive changes across 5 tech capabilities

Effective IT readiness & response to COVID-19

Customer journeys: Enable digital pathways

Operational processes: Increase visibility into operational risks

Business processes

Digital ways of working: Reconfigure workflows to support remote work ("IT for the Business") and core IT operations and support ("IT for IT")

Infrastructure & Platforms	Cybersecurity	Systems architecture	IT Service Management	Digital Workforce Tools

Technology

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BCGs cybersecurity best practices enable secure operations during pandemic

Client situation

COVID-19 is forcing companies shifting from office operations to remote working

Objective

Minimize risk of cybersecurity crisis during pandemic

Impact delivered

Best practices to secure operations during pandemic

Remote working due to COVID-19 outbreak

Step 1: Identify cybersecurity risks due to shift from "office operation" to "remote operation"

Implementation of cybersecurity actions

Step 2: Implement 7 actions and communicate rationals to secure remote operations during pandemic

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Client situation

Premium Automotive OEM with complex application landscape needs to simplify portfolio

Objective

Opportunities for simplification identified and qualified via criteria-based analysis and portfolio clustering

Impact delivered

BCG helped decide on tech approach and program priorization
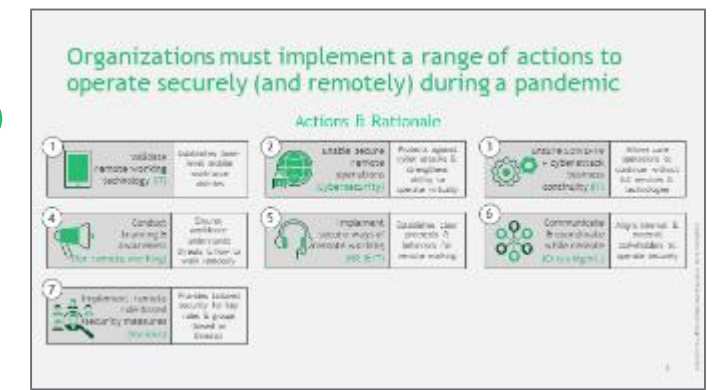
Proven four step approach to build simplified and more robust IT landscape

1 Qualify applications

Collect key information along 5-10 pragmatic criteria e.g., business relevance & cost, technologies
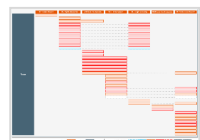
App landscape & key information

2 Cluster applications

Cluster applications along dimensions business value and complexity into buckets e.g., keep / grow, retire / sun-down

Clustering of applications

3 Build roadmap

Prioritize opportunities and realize first quick wins ("proof that it works"). Build aligned roadmap for actions

Aligned roadmap

4 Execute roadmap

Drive execution of roadmap and liaise with respective teams. Track rigorously to ensure timely delivery

Ongoing impact reporting

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Client situation

Various clients face digital disruption and technology change; current IT delivery with limitation and team interactions are very hierarchical and slow

Objective

Reduce tech projects delivery time, increase frequency of releases, increase user adoption, improve capability to attract top talent

Impact delivered

Tailored model for agile transformation and efficiency gains

Agile@scale: New ways of working as good practices in times of COVID-19

Agile ways of working:
Substantial new ways of working tailored to client´s needs with best practices and key success factors
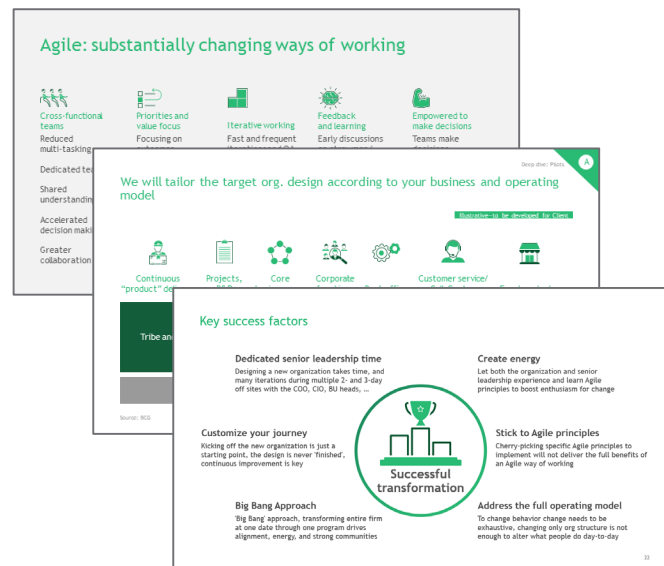
BCGs project approach:
Iterative approach with high degree of coaching/training & implementation of tools to ensure successful (remote) collaboration

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Client situation

Leading CPG Client wants to radically improve products, customer experience and create competitive advantage

Objective

Improve data availability and quality

Impact delivered

Data accelerator and Data and digital platform
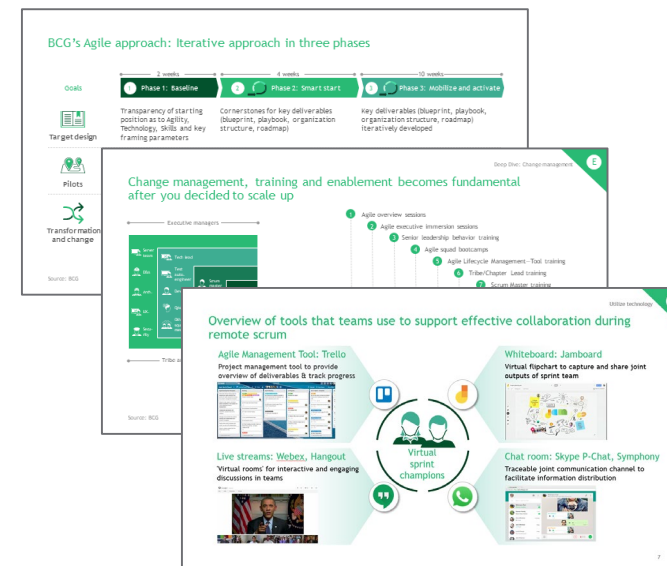
Data and digital platform helps to improve customer experience

Tech revolution based on data & digital platform and tech accelerator

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Tech People Transformation (TPX) redesigns people strategy to facilitate DDP[1]

Client situation
Companies moving to Data and Digital Platforms should carefully define their workforce strategy

Objective
Define comprehensive redesign of the people strategy within a technology / IT function
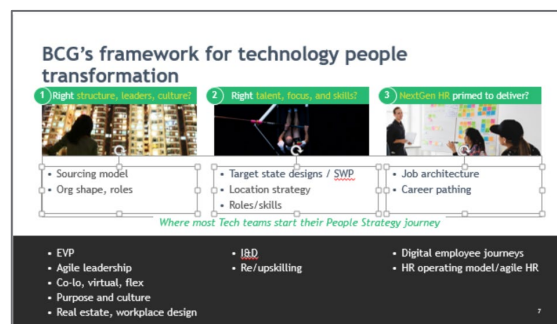
Impact delivered
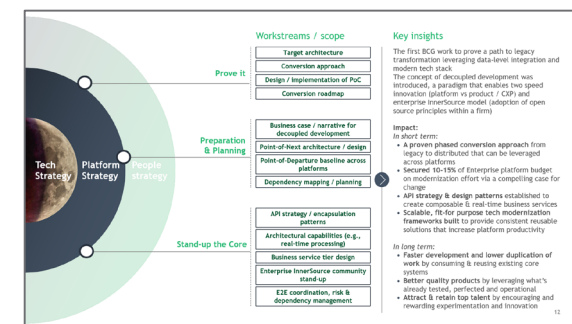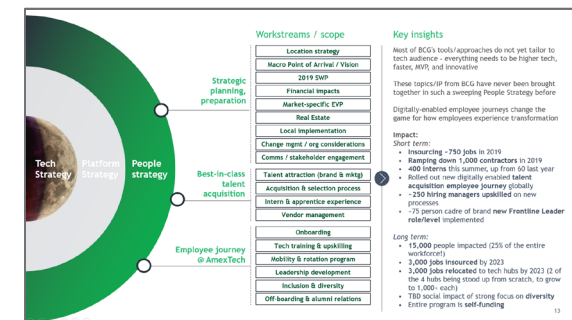Tailored model to enable Tech People Transformation

BCG framework

Comprehensive redesign of the **people strategy** within a **technology / IT function** acknowledging the fact that IT/Tech is no longer purely a "back office" function, but a **business driver and product builder**

Ready to use tool kit to define tech/platform and people strategy

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