Lonza Capital Markets Day 2021
12 October 2021, Zurich, Switzerland
Reflections on the Business in 2021
CEO perspectives

- Specialty Ingredients divestment completed, allowing Lonza to focus as a pure-play CDMO player
- Deliver strong sales growth and profitability during a pandemic
- Contribution to controlling the pandemic through COVID-19 vaccine drug substance manufacture in record time
- De-risked long-term investment program to capture growth
Agenda

**Group Overview**

Our Company Today
Strategic Priorities
Financial Update

*Break*

**Highlights and Priorities by Division**

Biologics
Small Molecules
Cell & Gene
Capsules & Health Ingredients

**Q&A**
Our Company Today
Strengthening our Position as a Leading CDMO Player
Our company in numbers

1,065
Molecules in development in 2020

230
Capsules produced annually in 2020

35
Development and manufacturing sites

4.5
Sales (CHF) Full-Year 2020

30.6%
CORE EBITDA margin Full-Year 2020

~20%
CAPEX as % sales Full-Year 2020
Our Journey Within the Healthcare Industry
Transformation into a pure-play CDMO

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980s</td>
<td>Small molecules and APIs</td>
</tr>
<tr>
<td>1992</td>
<td>Biotechnological production of fine chemicals</td>
</tr>
<tr>
<td>1996</td>
<td>Mammalian cell cultures and monoclonal antibodies</td>
</tr>
<tr>
<td>1999</td>
<td>HPAPI</td>
</tr>
<tr>
<td>2007</td>
<td>ADCs Cell Therapy</td>
</tr>
<tr>
<td>2010</td>
<td>Viral vector gene therapy</td>
</tr>
<tr>
<td>2015</td>
<td>Cocoon® Platform</td>
</tr>
<tr>
<td>2017</td>
<td>Capsugel acquisition</td>
</tr>
<tr>
<td>2019</td>
<td>Water Care business divestment</td>
</tr>
<tr>
<td>2020</td>
<td>mRNA</td>
</tr>
<tr>
<td>2021</td>
<td>Specialty Ingredients business divestment</td>
</tr>
</tbody>
</table>
Delivering on our Vision to Bring any Therapy to Life
Leading CDMO with breadth, experience and scale
Established, Well Balanced and Diversified Customer Portfolio
Global customer base

Lonza Sales by Customer Location

- APAC: 13%
- AMER: 47%
- EMEA: 40%

Lonza Sales by Customer Type¹

- Mid-to-Small Pharma: 39%
- Large Pharma: 61%

Lonza Sales by Customer Size

- Remaining: 62%
- Top 10: 38%

¹Top 30 largest pharma companies by revenue are attributed to large pharma
Proximity to Customers Through Broad and Regionalized Network
Global development and manufacturing capabilities

- Network of 35 sites across all key regions and modalities
- Ability to offer customers access to regional supply
- Expanding presence in Asia to support growth

Some dots represent multiple sites
Strategic Priorities
Focus on Sustainable Value Creation

Key priorities

1. Growth Investments
2. Operational Excellence
3. Innovation
4. Sustainability
5. Culture and People
Favourable Market Dynamics and Investment Opportunities

Divisional market growth outlook

<table>
<thead>
<tr>
<th>Market growth</th>
<th>Biologics¹</th>
<th>Small Molecules</th>
<th>Cell &amp; Gene Technologies¹</th>
<th>Bioscience</th>
<th>Capsules &amp; Health Ingredients²</th>
</tr>
</thead>
<tbody>
<tr>
<td>% share in Lonza Sales³</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

¹ CDMO market
² Capsules market, excluding Health Ingredients
³ Based on 2020 FY revenue
⁴ Cell & Gene division includes Cell & Gene Technologies, Bioscience and Personalized Medicine businesses

Source: see Divisional sections for details
Addressing Market Momentum Through Growth Investments

Overview of growth projects

- Investments across modalities – 2021 CAPEX anticipated at c.25% of Sales
- Attractive return profile: IRR 15-20%, ROIC >30% after ramp-up
- Investments de-risked through anchor customer commitments

<table>
<thead>
<tr>
<th>Division</th>
<th>Selected Landmark Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biologics</td>
<td>Large-scale facility in Visp (CH) and small-scale single-use technology facility in Portsmouth (US)</td>
</tr>
<tr>
<td>Small Molecules</td>
<td>2,000m² complex in Visp (CH) including dedicated ADC payload line</td>
</tr>
<tr>
<td>Cell &amp; Gene</td>
<td>Expansion of Viral Vector and Cell Therapy suites in Houston (US)</td>
</tr>
<tr>
<td>Capsules &amp; Health Ingredients</td>
<td>Adding 30bn annual capsules manufacturing capacity across the network</td>
</tr>
</tbody>
</table>

CAPEX\(^1\) in CHF mio
Delivering on Investment Projects

Case study Ibex® Solutions

2017 – 2018
Start of construction

2020 – 2021
Start of operation

2021+
Investment in a new large-scale mammalian manufacturing facility

Selected Customer Projects

Multiple undisclosed biotech and pharma clients

Legend: White color – built; orange color – under construction; green color – potential future development
Generating Value for our Customers and our Business

Operational excellence

**Customer**
- Increasing market demand
- Focus on continuity of supply through pandemic
- Need for speed to capitalize on opportunities

**Company**
- Increased productivity in base business
- Scalable business models and systems
- Operationalization of growth investments

**Continuing to meet customer needs through a focus on:**

- Speed
- Value
- Quality
Focus on Delivering Differentiated Solutions for our Customers

Innovation Highlights

**Biologics**

- mRNA suite in Visp (CH)

Small-scale capabilities in mRNA to complement commercial expertise

**Small Molecules**

- ADC payload manufacturing in Visp (CH)

Manufacturing capabilities of complex cytotoxins for Antibody Drug Conjugates

**Cell & Gene**

- Cocoon® Platform

Disruptive Cocoon® Platform to industrialize autologous cell therapy manufacturing

**Capsules & Health Ingredients**

- Vcaps® enteric capsules

Next generation capsules to improve oral delivery of sensitive molecules
Promoting a Responsible Approach

Sustainability

- Resolving legacy issues post Specialty Ingredients divestment
- Updating ESG KPIs in line with UN framework to reflect new focus as a CDMO business
- ESG targets will be incorporated in people reward and recognition from 2022

### Recent Actions to Address Legacy Environmental Issues

#### 2020: Nitrous Oxide
- CHF 12mio investment to reduce N₂O emissions in Visp (CH) by >98%
- c.40% CO₂ equivalent reduction

#### 2021: Landfill
- Remediation project for landfill site in Gamsenried (CH) for CHF 290mio in first phase of remediation

### Updated ESG KPIs Framework

1. Good Health and Well-being
2. Quality Education
3. Gender Equality
4. Clean Water and Sanitation
5. Industry Innovation and Infrastructure
6. Responsible Consumption and Production
7. Climate Action
A Growing Employee Community Supporting Business Growth

People

- >100 nationalities
- >60 languages
- >30% female leaders
- 11% employees with PhD degree
- >90% retention rate

Lonza workforce evolution
in k FTE

1 End of period FTE H1 2021 for continuing operations; 2019 approximated by Lonza Group excl. Specialty Ingredients segment
2 As at 30th of September 2021
Attracting and Retaining Top Talent with Right Environment and Culture

- Clear company identity, supported by a vision, purpose and values
- Strong employee motivation to develop and deliver life-saving therapies
- Role modelling by Management
- Dynamic and growing work environment, offering platform for professional growth

United by a common vision to **Bring Any Therapy To Life**

Four pillars of Lonza culture

- Integrity
- Inclusion
- Innovation
- Initiative

Motivated by a common purpose to **Enable A Healthier World**
Group Mid-term Guidance 2024
Strategic priorities supporting our financial forecasts

- **Current performance is influenced by:**
  - Continuing focus on operational excellence
  - Talent attraction and retention
  - Ramp-up and operationalization of new assets and facilities

- **Long-term success is influenced by:**
  - Strong and growing market growth and demand
  - Continuing commitment to sustainable value creation
  - Extensive CAPEX investments in facility expansions

- **Mid-term guidance:**
  - Low-teens CER sales growth
  - ~33-35% CORE EBITDA margin
  - Double-digit ROIC
Financial Update
Strong Financial Pillars Underpinning Strategy
Financial perspective

1. Value Creation Model
2. Capital Allocation
3. Capital Structure
4. Mid-Term Guidance
Value Creation Fuelled by Growth Investments and Operational Excellence

Value creation model

**Base Business**
- Throughput
- Operational excellence
- Operating leverage

**Growth Business**
- IRR 15-20%
- ROIC >30% (with ramped up Sales)
- Secured commercial projections

- Growth is driven by investments in assets and people
- Investment projects have attractive risk / return profile
- Base operations provide scale to finance investments and deliver margin accretion
Accelerating Sales and ROIC Growth...

**Indicative Sales Trajectory**
- Growth projects 2021+
- Growth projects 2017-2020
- Base

<table>
<thead>
<tr>
<th>Year</th>
<th>Growth</th>
<th>Base</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2022</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2023</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2024</td>
<td></td>
<td></td>
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<tr>
<td>2025+</td>
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</tbody>
</table>

- Mid-term growth from past CAPEX investments and base business throughput improvement
- Growth acceleration beyond MTG with current CAPEX program

**Indicative ROIC Trajectory**
- Sustained ROIC accretion in base business
- Strong ROIC accretion with fully ramped-up growth project sales
### Cost Item

<table>
<thead>
<tr>
<th>Production Costs</th>
<th>Margin Impact</th>
<th>Value Levers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base business</td>
<td>++</td>
<td>• Increased yield</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Right first time</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Reduced cycle times</td>
</tr>
<tr>
<td>Growth projects</td>
<td>Short-term -</td>
<td>• Optimised investments</td>
</tr>
<tr>
<td></td>
<td>Mid-term +</td>
<td>• Efficient scale up</td>
</tr>
<tr>
<td>Sales &amp; Marketing</td>
<td>+</td>
<td>• Increased contract pipeline</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Improved targeting</td>
</tr>
<tr>
<td>R&amp;D</td>
<td>-</td>
<td>• Value impact</td>
</tr>
<tr>
<td>Admin</td>
<td>++</td>
<td>• Clear prioritization</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Process excellence</td>
</tr>
</tbody>
</table>

**Margin Accretion**
Many Investment Opportunities to Maximize Value
Capital allocation framework

**EBITDA and Specialty Ingredients proceeds**

**Organic**
- Broad portfolio of investment opportunities
- Intrinsic component of Lonza business model
- Proven track record of delivering high returns with low risk profile
- Strong execution a major consideration when defining project portfolio

**M&A**
- Clearly defined investment priorities
- Solid integration capabilities
- Strict guardrails

**Dividend**
- Limited capital distribution given abundance of value-creating re-investment opportunities
- Continued dividend of 25-40% of Net Income
- No extraordinary capital return foreseen

Legend: ⌁ - Indicative share of capital allocated in the mid-term
Investments to Capitalize on Increased Demand

CAPEX

Lonza CAPEX
as % of sales and in CHF

- 0.7bn
- 0.9bn
- c.1.0+bn

- 16.5%
- 19.7%
- c.25%

2019 2020 2021 2022 2025

Return to high-teens

Mid-term CAPEX by division
as % of total; indicative

- Biologics
- Infrastructure
- CHI
- C&G
- SM

Mid-term CAPEX base vs. growth
as % of total; indicative

- Growth
- Maintenance

1 Infrastructure investments, mainly in Visp that are shared across multiple Divisions (as part of Corporate segment)
2 Cell & Gene Division includes Cell & Gene Technologies, Bioscience and Personalized Medicine businesses

c.80% of CAPEX to support future growth
Projects Backed by Commitments and Pipeline
Managing investment risks

**Investment Risk Mitigation Levers**
- Long contract duration
- High level of backlog and pipeline
- Anchor customers
- Diversified project portfolio
- Stepwise, milestone-based investments

**Illustrative Project CAPEX and Sales Profile**

![Illustrative Project CAPEX and Sales Profile](image)

1Indicative; based on selected typical commercial Biologics CDMO projects
## Focused and Disciplined M&A Approach

### M&A priorities and guardrails

<table>
<thead>
<tr>
<th>M&amp;A Priorities</th>
<th>M&amp;A Guardrails</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strengthen Core Business</strong></td>
<td>• Clear strategic fit</td>
</tr>
<tr>
<td>• Additional short-term capacity</td>
<td>• Buy benchmarked against build</td>
</tr>
<tr>
<td>• Increased regional presence</td>
<td>• Strong value creation and synergies</td>
</tr>
<tr>
<td><strong>Complete Value Chain</strong></td>
<td>• Accretive ROIC profile</td>
</tr>
<tr>
<td>• Parenteral commercial fill and finish</td>
<td></td>
</tr>
<tr>
<td>• Selected consumables and raw materials</td>
<td></td>
</tr>
<tr>
<td><strong>Accelerate Innovation</strong></td>
<td></td>
</tr>
<tr>
<td>• Enabling technologies and new IP</td>
<td></td>
</tr>
<tr>
<td>• Future modalities and therapies</td>
<td></td>
</tr>
</tbody>
</table>
Balance Sheet Supports Growth Investments
Leverage profile

**Net Debt / CORE EBITDA**

<table>
<thead>
<tr>
<th></th>
<th>FY 2020</th>
<th>H1 2021</th>
<th>H1 2021 PF LSI</th>
<th>Mid-term</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.7x</td>
<td>1.6x</td>
<td>(0.7x)</td>
<td></td>
</tr>
</tbody>
</table>

**Commitment to strong investment grade rating**

1Based on Lonza Group figures for FY 2020, H1 2021; based on Lonza Continuing figures pro forma CHF 4bn Specialty Ingredients proceeds for H1 2021 PF LSI; all ratios based on CORE EBITDA for last twelve months

CORE definition: See appendix
Sales guidance update driven by strong momentum across businesses

Sustained CORE EBITDA margin improvement

Accelerated CAPEX investment reflecting increased demand

ROIC accretion reflecting positive sales growth and increased investments
### Divisional Mid-term Guidance 2024

<table>
<thead>
<tr>
<th>Biologics</th>
<th>Small Molecules</th>
<th>Cell &amp; Gene</th>
<th>Capsules &amp; Health Ingredients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales CAGR 2021 - 2024 (CER)</td>
<td><strong>Mid-teens</strong></td>
<td><strong>High single-digit</strong></td>
<td><strong>Mid-teens</strong></td>
</tr>
<tr>
<td>CORE EBITDA margin 2024</td>
<td><strong>35%+</strong></td>
<td><strong>30%+</strong></td>
<td><strong>15%+</strong></td>
</tr>
</tbody>
</table>

CORE definition: See appendix
Introducing Philippe Deecke
Coffee Break
Highlights and Priorities by Division
Biologics
## Broad Offering Across Modalities and Development Phases

### Business overview

<table>
<thead>
<tr>
<th>Modality</th>
<th>Growth¹</th>
<th>Offering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mammalian</td>
<td>Market: 11 – 13% Lonza: ![Above market]</td>
<td>• Broad service offering for biotechs and large pharma</td>
</tr>
<tr>
<td>Bioconjugates</td>
<td>Market: 7 – 9% Lonza: ![Above market]</td>
<td>• Leading capabilities and end-to-end offering across all conjugate elements</td>
</tr>
<tr>
<td>mRNA</td>
<td>Market: emerging Lonza: in-line with market</td>
<td>• Market pioneer through successful delivery of COVID-19 vaccine drug substance</td>
</tr>
<tr>
<td>Microbial</td>
<td>Market: 7 – 8% Lonza: ![Above market]</td>
<td>• Mid- and large-scale commercial manufacturing, supported by proprietary expression systems</td>
</tr>
<tr>
<td>Drug Product Services</td>
<td>Market: 9 – 10% Lonza: ![Above market]</td>
<td>• Strong clinical offering; actively expanding commercial capabilities</td>
</tr>
<tr>
<td>Licensing</td>
<td>n.a.</td>
<td>• Proprietary GS protein expression system</td>
</tr>
</tbody>
</table>

¹2020-2025 CAGR in USD for CDMO market; Source: Frost & Sullivan (2021), Lonza internal analysis
**Strong Growth Outlook Supported by Market Trends**

**Market perspectives**

### Key Market Trends

- Strong pipeline growth for all modalities
- Increased outsourcing
- Increasing complexity of therapies and vaccines
- Biotechs continuing their programs to late phase clinical development and commercial launch
- New indications with significant anticipated demand levels (e.g., Alzheimer, COVID-19)

### Market Growth Outlook

**Biologics CDMO Market**

11-13% 2020-2025 CAGR

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1 2020-2025 CAGR in USD; Source: Frost & Sullivan (2021), Lonza internal analysis
Expanding Value Chain and Flexible Delivery Model

Strategic priorities

1. Strengthen end-to-end offering

2. Increase presence across modalities and regions

3. Leverage global capabilities to offer agile delivery model

4. Enhance technological edge through further innovation

*LI – Licensing
DS – Drug Substance
DP – Drug Product
### Regulatory consulting to support IND and BLA

<table>
<thead>
<tr>
<th>Drug Substance</th>
<th>Late Discovery</th>
<th>Pre-clinical development</th>
<th>Clinical development &amp; supply</th>
<th>Commercial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mammalian</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Microbial</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Bioconjugates</td>
<td>●</td>
<td>●</td>
<td>●, mAb, Linker, payload</td>
<td>●</td>
</tr>
<tr>
<td>mRNA</td>
<td></td>
<td></td>
<td>mAb, Linker, payload</td>
<td></td>
</tr>
<tr>
<td>DPS</td>
<td></td>
<td></td>
<td>formulation</td>
<td>Capabilities build-up</td>
</tr>
</tbody>
</table>
### Our Proposition

- Proven track record through 20 years of experience
- Integrated offering from preclinical to commercial, including drug substance and drug product
- Capability to develop and manufacture complex molecules
- Scope and scale with global network covering multiple assets sizes and technologies

### Selected Customer Profiles

**Biotech**

- Long standing strategic partnership on antibody programs
- Extensive pipeline of differentiated antibody-based therapeutics to treat cancer
- Support from early development to launch and commercial supply

**Genmab**

**Large Pharma**

- Support from launch to ongoing market supply
- Manufacturing for several molecules
- Dedicated monoplant and flexible capacity within CDMO network

### Recent Developments

- Mid- and small-scale capacity coming on-line in Portsmouth (US), Visp (CH) and Guangzhou (CN)
- Continued growth investments
Global Network Providing Flexibility for Customers

Mammalian highlights

Legend:
- Existing capacity
- Announced additions

Portsmouth, US
- 2kL: 8x
- 6kL: 4x
- 20kL: 5x

Hayward, US
- 1kL: 2x
- 2kL: 2x

Porriño, ES
- 10kL: 4x

Tuas, SG
- 2kL: 2x
- 20kL: 4x

Slough, UK
- 1kL: 6x

Visp, CH
- 1kL: 3x
- 2kL: 3x
- 20kL: 6x

Guangzhou, CN
- 1kL: 2x
- 2kL: 2x
## Industry Leading Experience and Complete Offer

**Bioconjugates highlights**

### Our Proposition

- Pioneer with more than 15 years of experience
- Supporting the majority of commercially approved ADCs
- Integrated offering with capabilities across all ADC elements
- Opportunity to extend partnerships across supply chain in other modalities (e.g., from mAb to small molecule)

### Recent Developments

- Expansion of multiproduct and dedicated conjugation suites in Visp
- Focus on developing early phase services

### Selected Customer Profiles

<table>
<thead>
<tr>
<th>Company</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Roche</strong></td>
<td>Since 2006</td>
</tr>
<tr>
<td>Kadcyla and Polivy (oncology ADCs) journey from clinic to market</td>
<td></td>
</tr>
<tr>
<td>Long lasting relationship with Roche / Genentech for 15 years</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Company</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Kodiak</strong></td>
<td>Since 2016</td>
</tr>
<tr>
<td>Production of novel antibody polymer conjugate (ophthalmology)</td>
<td></td>
</tr>
<tr>
<td>Full offering from pre-clinical to Phase 3 with path to commercialization</td>
<td></td>
</tr>
</tbody>
</table>
Early Mover in High-growth mRNA CDMO Market

mRNA highlights

- Demonstrated capabilities to deliver quickly, evidenced by production of Spikevax for Moderna and facilitated by Ibex®

- Significant market opportunity: 200 mRNA drugs in development¹

- Lonza well positioned to capitalize on market opportunities

Modernna manufacturing suite in Visp (CH)

- March 2020: Empty shell
- December 2020: Fully operational line
- March 2021: Expansion of relationship, additional production lines in Visp (CH) and Geleen (NL)

¹Source: Pharmaprospects, August 2021
2 Strengthening Drug Product Services Capabilities

Drug product highlights

Our Proposition

- Leading CDMO for sterile drug product development with >300 FTEs, >100 customers and expertise in complex projects
- Integrated DS and DP offering across all key modalities
- Clinical manufacturing in Europe and Asia (2023)

Recent Developments

- Expansion of development labs in Basel to support increased manufacturing capacity
- Expansions to clinical DP manufacturing (Switzerland and China)
- On-going focus on integrated offering and adding additional capacity to complement drug substance

Overview of Facilities

- Basel (CH)
- Stein (CH)
- Operational: Q1 2022
- Ibex® Solution, Visp (CH)
- Operational: Q2 2023
- Guangzhou (CN)
2 Strengthen Biologics Presence Across Modalities and Regions

Biologics investment projects

- Hayward, US: Building development and clinical manufacturing capabilities
- Geleen / Maastricht, NL: Commercial mRNA
- Visp, CH: Large-scale mammalian DS, Commercial mRNA expansion, Bioconjugation capacity expansion
- Stein, CH: Additional clinical filling line
- Basel, CH: Expanded development labs for DPS
- Portsmouth, US: Next-generation late-phase clinical and commercial facility
- Tuas, SG: Strengthening development capacity
- Guangzhou, CN: Clinical mammalian facility for DP to complement DS

DS – Drug Substance
DP – Drug Product
DPS – Drug Product Services
Leverage Global Capabilities to Offer Agile Delivery Model

Ability to offer solutions for specific client needs

Differentiated CDMO offering...

- Established global manufacturing network
- Broad range of modalities
- Clinical to commercial offerings
- Local regulatory expertise

...enhanced by customized solutions

- Fully customizable, technology agnostic solution
- Faster time-to-market
- Agility to address demand unpredictability
- Flexible ownership and operating models
4 Enhancing Technological Edge Through Innovation

R&D priorities

**Expression of Complex Molecules**
Next gen expression systems for scalable and reliable production of complex molecules
GS piggyBac® for difficult-to-express proteins and to express multiple genes at the same time

**Continuous Manufacturing**
Approach to intensifying processes to support continuous manufacturing for improved delivery: N-1 perfusion, continuous protein capture and purification

**Next-generation Modalities**
Building early-stage, small-scale capabilities in mRNA to complement existing expertise in scale-up and commercial supply

**Automation**
In-process analytics for real-time control of bioprocess performance
Machine learning to optimize complex bioprocesses and yields
Small Molecules
### Differentiated Solutions for Complex Small Molecules Products

**Business overview**

<table>
<thead>
<tr>
<th>Drug Substance</th>
<th>Lonza Position</th>
<th>Growth¹</th>
<th>Offering</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPAPI suite</td>
<td>Top tier in highly fragmented market</td>
<td>Market: 4-5% Lonza:</td>
<td>- Development and manufacturing of API and intermediates for a wide range of customers from virtual companies to large pharma</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Focus on Highly Potent API segment and complex processes</td>
</tr>
</tbody>
</table>

| Particle Engineering and Drug Product | Leader in particle engineering | Market: 4-5% Lonza: | - Advanced capabilities in bioavailability enhancement through particle engineering |
|                                       |                               |                     | - Rapid to clinic supply for early phase |
|                                        |                               |                     | - Integrated packaging operations |

¹2020-2026 CAGR in USD; Source: Lonza internal analysis based on IQVIA, EvaluatePharma, Citeline and other third-party data
Increased Growth Expected in Highly Potent API Segment

Market perspectives

Key Market Drivers

- Small molecule therapies remain the largest pharmaceuticals market segment (70%)
- Fast growth in Highly Potent API segment driven by oncology
- Clinical pipeline increasingly owned by small and emerging companies
- Accelerated time to market becomes the norm
- Increasing complexity in small molecules with longer synthetic pathways and poor bioavailability

~8-10%
Growth of HPAPI segment\(^1\)

~30%
Share of oncology related molecules in the pipeline

~80%
small companies own the pipeline

>70%
of new molecules have poor solubility

\(^1\) 2020-2026 CAGR in USD
Source: Lonza internal analysis based on PharmaCircle and other third-party data
1. Strengthen early-phase offering

2. Expand capabilities in complex highly-potent products

3. Deploy agile manufacturing solutions

4. Focus on innovation
Solutions to Accelerate Clinical Development
Early-phase offering

Market Trend

>65% of new drug approvals are on an accelerated pathway\(^1\)

Lonza Solution

Proprietary solutions for rapid supply of First in Human drug substance and drug product

- >3 months reduction in Phase 1 timeline
- Reduced complexity
- Decreased costs
- Lower risk

\(^1\)Source: FDA & Pharmacircle
Recognized Industry Leader in HPAPI Manufacturing
Capabilities in complex highly potent APIs

**Lonza Proposition**

- Breadth of expertise to respond to almost any chemical synthesis
- Specialized assets aligned to specific customer product needs
- Early clinical to commercial manufacturing within a single site

**Recent Highlights**

**Large Pharma**

**Complexity**
- Complex ADC payload manufacturing
- Highly potent cytotoxic molecule

**Lonza Solution**
- Dedicated facility to enable contained processing of highly toxic substances

**AstraZeneca**

**Complexity**
- Multiple complex oncology HPAPIs for one client
- Need for flexibility to adapt to changing demand

**Lonza Solution**
- Multi-purpose facility for long-term manufacturing agreement
Tailor Made Solutions to Address Demand Unpredictability

Agile manufacturing solutions

Facility Description

- New 2,000m² manufacturing complex in Visp (CH)
- CHF 200m investment supported by capital contribution from a long-term customer
- Dedicated manufacturing line for ADC payload molecules
- Pre-built shells for maximum design flexibility
- Manufacturing start in 2023

Value-add for Customers

- Fully customizable asset tailored to customer needs
- Accelerated module build to support shorter timelines
- Agility to address demand unpredictability
- Flexible business models
Enhancing our Proposition Through Focused Innovation

R&D priorities

**Reduction of Time to Clinic**
- *In silico* route selection / automation for rapid clinical supply for drug substance
- Predictive formulation models for drug product

**Bioavailability Enhancement**
- Innovative technology to allow spray drying for ‘brick dust’ molecules

**Inhalation**
- Local targeting for improved efficacy at lower dose
- Pulmonary delivery of spray dried monoclonal antibody

**Complex Molecules**
- Technology and process innovation for complex small molecules synthesis
- Investment in state-of-the-art containment facilities with high levels of automation
Cell & Gene
# Portfolio of Complementary Strong Businesses

**Cell & Gene overview**

<table>
<thead>
<tr>
<th>Cell &amp; Gene Technologies</th>
<th>Growth</th>
<th>Profitability</th>
<th>Offering</th>
</tr>
</thead>
<tbody>
<tr>
<td>GMP suite</td>
<td>End-market(^1): 15%+ Lonza: ➤</td>
<td>Break-even by Q4 2021</td>
<td>• CDMO services across cell and gene therapy modalities</td>
</tr>
<tr>
<td>Bioscience</td>
<td>End-market(^1): 7-9% Lonza: ➤</td>
<td>Accretive to Lonza Group</td>
<td>• Critical raw materials and instrumentation for cell &amp; gene and other therapeutic areas</td>
</tr>
<tr>
<td>4D-Nucleofector LV unit</td>
<td>n.a.</td>
<td>Investment phase</td>
<td>• Start-up business developing breakthrough technology to industrialize autologous cell therapies</td>
</tr>
<tr>
<td>Personalized Medicine</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cocoon(^2) Platform</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

\(^1\)2021-2023 CAGR in USD  
\(^2\)2020 – 2026 CAGR in USD  
Source: Informa Citeline and Lonza internal analysis
## Established Partner to Innovators in Cell & Gene Space

Cell & Gene Technologies value proposition

<table>
<thead>
<tr>
<th>Integrated offering</th>
<th>Process &amp; assays development services</th>
<th>Regulatory support</th>
<th>Clinical &amp; commercial manufacturing</th>
<th>In-house tissue acquisition</th>
<th>Network of partners from vein-to-vein</th>
<th>CGT media products</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Expertise and track record</th>
<th>&gt;20 years of GMP experience</th>
<th>&gt;160 Customers globally</th>
<th>&gt;150 Projects</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Global network and capabilities</th>
<th>4 sites on 3 continents</th>
<th>One of the largest dedicated C&amp;G sites Lonza Houston 28k sqm</th>
<th>&gt;1,200 Employees</th>
</tr>
</thead>
</table>
Getting Ready to Address Maturing Therapies Pipeline
Capabilities for late-stage and commercial cell & gene therapies

Regulatory approval in Feb 2021¹

Houston – now a certified CGT commercial site

Capacity expansion

- Readily available manufacturing space
- Additional shell space for rapid and flexible modular expansion

End-to-end support across modalities

7 late-phase products across all modalities

Established quality control system

De-risked path to filing

¹Pre-approval inspection completed
Continued Strong Market Momentum
Market perspectives

Market Trends

- Strong growth driven by transformational clinical efficacy
- Products moving towards late-stage and commercialization
- Complex, un-scalable and costly manufacturing processes
- Accelerated approval pathways
- Rapid capacity and capabilities expansion across pharma and CDMO players

CGT CDMO Market Outlook

<table>
<thead>
<tr>
<th>Pre-Clinical/ Early Clinical</th>
<th>Late Phase/ Commercial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid-teens</td>
<td>Mid-twenties</td>
</tr>
</tbody>
</table>

1 2021-2023 CAGR for CGT Market in USD
Source: InformaCiteline and Lonza internal analysis
1. Drive profitable growth in Cell & Gene Technologies

2. Strengthen Bioscience offering for Cell & Gene market

3. Drive adoption and commercialization of Cocoon® Platform

4. Accelerate synergies among CGT, Bioscience, Personalized Medicine
Drive Profitable Growth in Cell & Gene Technologies
Path to improved profitability

Lonza’s Focus on Operational Excellence

- Enhance excellence across quality, delivery, cost
- Drive process automation
- Invest in talent attraction, development and retention
- Focus on innovation to strengthen process excellence

Maturing Portfolio of Therapies in the Market

- Longer contracts
- Smaller number of changeovers
- Established manufacturing processes
- Higher asset utilization

Sustainable Margin Accretion
Providing Critical Raw Materials and Instrumentation from Gene to Patient

**Bioscience offering**

**Discovery Solutions**
- From gene
- Basic research
- Disease discovery
- Drug discovery

**Biomanufacturing Solutions**
- Drug development
- Clinical trials
- Production

**Offering**
- Solutions for Cell & Gene
- Biotherapeutic Media
- Testing and Informatics
- Discovery

**Customers**
- Academia
- Biotech
- Big Pharma

**Target Markets**
- Cell & Gene Therapies
- Bio-manufacturing
- Vaccines
- Injectable Drugs
Addressing Urgent Need for Automation of Autologous Cell Therapy
Cocoon® Platform – Business Opportunity

Challenges in Autologous Cell Therapy

- Manual and complex manufacturing
- Challenge to scale up
- Long manufacturing time and logistical complexities
- High cost

Benefits of Cocoon® Platform

- Efficient end-to-end automation across upstream and downstream processing
- Closed system with minimal touchpoints
- Minimize expensive clean room space requirements
- Ability to scale up cell therapies to commercial scale
- Flexible and customizable cassettes and programming to support a range of processes
Step-wise Advance Towards Commercialization Ambition
Cocoon® Platform – highlights of our journey

**Recent Collaborations**

- Collaboration to deliver CAR-T cell immunotherapy targeting B-cell malignancies
- **Three successful clinical outcomes**

**March 2019**

- Manufacture TAC-T cell immunotherapy for HER2 cancer
- Support IND submission in under a year

**Triumvira**

**September 2021**

- Platform for clinical point-of-care manufacturing for a CAR-T therapy
- Aim to shorten vein-to-vein time to six to seven days

**CellPoint**

**June 2021**

- Continue developing the Platform to ensure system robustness and customer satisfaction
- Maintain progress in clinical trial and bring in new clinical partners
- Build a diversified pipeline portfolio around cancer and monogenic rare diseases
- Revenue potential dependent on clinical success and commercialization timeline of the therapies
4 Synergy Case Across Commercial Activities, Operations and Know-how
Cell & Gene synergies

**New Cocoon® Capabilities**
Leverage internal technologies to drive new capabilities in Cocoon®: Nucleofector® for transfection, media, etc.

**Integrated Offering**
Sourcing leads from Bioscience early-phase customers into CGT
Cross-selling (tissue acquisition, media, Nucleofector®, testing, etc.)
MODA™ deployment in CGT network

**End-to-end solutions for Cell & Gene market**

**Accelerate Cocoon® Adoption**
Deploy Cocoon® on CGT sites to accelerate industry adoption
Capsules & Health Ingredients
## Strong Portfolio to Help Customers Deliver Differentiated Products

### Business overview

<table>
<thead>
<tr>
<th>Capsules</th>
<th><strong>Growth</strong>&lt;sup&gt;1&lt;/sup&gt;</th>
<th><strong>Offering</strong></th>
</tr>
</thead>
</table>
| ![Capsule Image](image1.png) | Market: 2-3% Lonza: ![Green Arrow](image2.png) | • Comprehensive range of high quality capsules configurable to meet customer requirements  
• Global manufacturing footprint  
• End-to-end support and integrated value chain |

<table>
<thead>
<tr>
<th>Dosage Form Solutions (DFS)</th>
<th><strong>Offering</strong></th>
</tr>
</thead>
</table>
| ![Dosage Form Image](image3.png) | • Proprietary dosage and capsule technologies  
• R&D teams to support and differentiate formulation  
• End-to-end capabilities |

<table>
<thead>
<tr>
<th>Health Ingredients</th>
<th><strong>Offering</strong></th>
</tr>
</thead>
</table>
| ![Health Ingredients Image](image4.png) | Market: 5-6% Lonza: ![Green Arrow](image5.png)  
• Distinctive offering of branded health ingredients  
• Strong scientific claims and support  
• Proprietary ingredient manufacturing expertise |

---

1 2020-2025 CAGR in USD for addressable market; Source: Lonza internal analysis
1. Drive value shift towards high value capsules

2. Expand co-development DFS partnerships to accelerate customer innovation

3. Continued focus on innovation for new / innovative capsules and DFS capabilities
### Drive Value Shift Towards High Value Capsules

**Lonza proposition in innovative capsules**

<table>
<thead>
<tr>
<th>Market Trends</th>
<th>Pharmaceuticals</th>
<th>Nutrition</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Increasing importance of encapsulation profile for new drugs in development</td>
<td>• End-consumer trend to healthy living and clean label products</td>
<td></td>
</tr>
<tr>
<td>• Demand for high quality and security of supply</td>
<td>• Nutrition providers’ demand for complete and innovative solutions</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lonza Proposition</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Broad portfolio of customizable products</td>
</tr>
<tr>
<td>• Proprietary ingredients, capsules technologies and services</td>
</tr>
<tr>
<td>• Highest standards of quality</td>
</tr>
<tr>
<td>• Access to formulation development</td>
</tr>
<tr>
<td>• End-to-end services</td>
</tr>
<tr>
<td>• Global manufacturing and supply chain</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Select Product Highlights</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Enteric capsule" /></td>
</tr>
</tbody>
</table>
## Market Trend

>55%

of new nutritional liquid supplements pipeline utilize customized delivery technology

## Our Proposition

- Early engagement with customers at product development stage to provide optimal delivery technology
- Ability to deliver customized solutions: bioavailability, release timing, taste and odor masking
- Global scale across manufacturing and R&D to address regionalized demand

## Select Lonza Solutions

| Customizable release profile in 3 distinct phases |
| Beadlet + capsule |
| Ability to combine incompatible ingredients |
| Flexible release timing |
| Ability to include multiple ingredients in one dose |
| Increased bioavailability |
| Odor and taste masking |

---

1Source: Lonza internal analysis
Focus on Innovation

R&D priorities

**Products**

**Hard Capsules**

**Oral Dosage Form Solutions**

**Services**

**Operations**

**Next Generation Enterics**

Proprietary capsule with protection against stomach acid

Opportunity for novel delivery of complex compounds: therapeutic proteins, antibodies, vaccines, etc.

**LiCaps® and Lipid multi-particulates**

Enhancement of lipid based microencapsulation technology

Better masking, customized release profiles and enhanced bioavailability

**Application Lab and Innovation Services**

Expansion of R&D capabilities to ensure capsules are the preferred future dosage form

**D90 Capsule Manufacturing Machine**

Next generation of proprietary capsule manufacturing machines

15% higher throughput, 30% lower variability, greater versatility
Conclusion
Concluding Remarks

- New chapter for Lonza as a leading pure-play CDMO focused on delivering best-in-class solutions for the global healthcare industry
- Portfolio of divisions with high value offerings and clear strategies to drive above-market growth
- Commitment to innovation to deliver differentiated solutions for clients
- Accelerated investment plans to generate sustainable business growth underpinned by proven ability to deliver
- Updated Mid-term guidance reflecting strong business fundamentals
- Building blocks for value creation are in place – focus on delivery
Coffee Break
Q&A
Appendix
"We believe that disclosing CORE results of the Group’s performance enhances the financial markets’ understanding because the CORE results enable better year-on-year comparisons."

The following exceptional items are considered as CORE adjustments when they exceed the threshold of CHF 20 million per event:\footnote{In the context on the CORE definition, an "event" represents an individual business case that might involve income/expenses across several fiscal years.}

- Restructuring costs
- Remediation costs of historic environmental issues
- Acquisition and divestiture related expenses
- Impairments
- Litigations
- One-time effects arising from changes to pension plans – curtailments and settlements
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADC</td>
<td>Antibody Drug Conjugate</td>
</tr>
<tr>
<td>AMER</td>
<td>North, Central and South America</td>
</tr>
<tr>
<td>APAC</td>
<td>Asia-Pacific</td>
</tr>
<tr>
<td>bn</td>
<td>Billion</td>
</tr>
<tr>
<td>BLA</td>
<td>Biologics license application</td>
</tr>
<tr>
<td>CAPEX</td>
<td>Capital expenditure</td>
</tr>
<tr>
<td>CAGR</td>
<td>Compound annual growth rate</td>
</tr>
<tr>
<td>CDMO</td>
<td>Contract development and manufacturing organization</td>
</tr>
<tr>
<td>CHI</td>
<td>Capsules &amp; Health Ingredients (Lonza division)</td>
</tr>
<tr>
<td>CER</td>
<td>Constant exchangerate</td>
</tr>
<tr>
<td>C&amp;G / CGT</td>
<td>Cell &amp; Gene / Cell &amp; Gene Technologies (Lonza division and business unit)</td>
</tr>
<tr>
<td>DFS</td>
<td>Dosage Form Solutions</td>
</tr>
<tr>
<td>DS</td>
<td>Drug substance</td>
</tr>
<tr>
<td>DP</td>
<td>Drug product</td>
</tr>
<tr>
<td>DPS</td>
<td>Drug Product Services (Lonza business unit)</td>
</tr>
<tr>
<td>EBIT</td>
<td>Earnings before interest and tax</td>
</tr>
<tr>
<td>EBITDA</td>
<td>Earnings before interest, tax, depreciation, and amortization</td>
</tr>
<tr>
<td>EPS</td>
<td>Earnings per share</td>
</tr>
</tbody>
</table>
# Glossary

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMEA</td>
<td>Europe, Middle East, and Africa</td>
</tr>
<tr>
<td>ESG</td>
<td>Environmental, social, and governance</td>
</tr>
<tr>
<td>FTE</td>
<td>Full time equivalent</td>
</tr>
<tr>
<td>GMP</td>
<td>Good manufacturing practices</td>
</tr>
<tr>
<td>HP (API)</td>
<td>Highly Potent (Active Pharmaceutical Ingredient)</td>
</tr>
<tr>
<td>IND</td>
<td>Investigational new drug</td>
</tr>
<tr>
<td>IPSCs</td>
<td>Induced pluripotent stem cells</td>
</tr>
<tr>
<td>IRR</td>
<td>Internal rate of return</td>
</tr>
<tr>
<td>KPI</td>
<td>Key performance indicator</td>
</tr>
<tr>
<td>mio</td>
<td>Million</td>
</tr>
<tr>
<td>mAbs</td>
<td>Monoclonal antibodies</td>
</tr>
<tr>
<td>M&amp;A</td>
<td>Mergers and acquisitions</td>
</tr>
<tr>
<td>ROIC</td>
<td>Return on invested capital</td>
</tr>
<tr>
<td>R&amp;D</td>
<td>Research and development</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
</tr>
</tbody>
</table>
Lonza Group Ltd has its headquarters in Basel, Switzerland, and is listed on the SIX Swiss Exchange. It has a secondary listing on the Singapore Exchange Securities Trading Limited ("SGX-ST"). Lonza Group Ltd is not subject to the SGX-ST’s continuing listing requirements but remains subject to Rules 217 and 751 of the SGX-ST Listing Manual.

Forward-looking statements contained herein are qualified in their entirety as there are certain factors that could cause results to differ materially from those anticipated. Any statements contained herein that are not statements of historical fact (including statements containing the words “outlook,” “guidance,” “believes,” “plans,” “anticipates,” “expects,” “estimates” and similar expressions) should be considered to be forward-looking statements. Investors are cautioned that all forward-looking statements involve risks and uncertainty.

There are a number of important factors that could cause actual results or events to differ materially from those indicated by such forward-looking statements, including the timing and strength of new product offerings; pricing strategies of competitors; the company’s ability to continue to receive adequate products from its vendors on acceptable terms, or at all, and to continue to obtain sufficient financing to meet its liquidity needs; difficulty to maintain relationships with employees, customers and other business partners; and changes in the political, social and regulatory framework in which the company operates, or in economic or technological trends or conditions, including currency fluctuations, inflation and consumer confidence, on a global, regional or national basis.

In particular, the assumptions underlying the Mid-Term Guidance 2024 herein may not prove to be correct. The statements in the section on Mid-Term Guidance 2024 constitute forward-looking statements and are not guarantees of future financial performance.

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