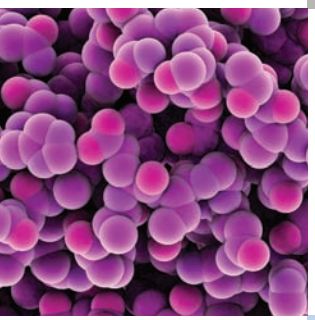
Patheon®
A HEALTHIER WORLD. DELIVERED.



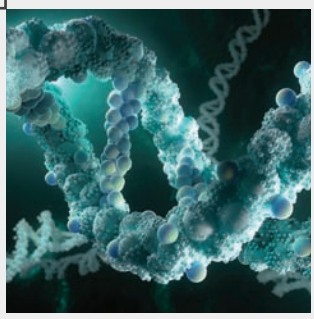
A healthier world.
Delivered.

Tomorrow's medicines, today.

Patheon is transforming the way pharmaceuticals are made with a simplified, end-to-end supply chain for pharmaceutical and biopharmaceutical companies of all sizes. Drug substances and drug products. Development and manufacturing. Small and large molecules. Sterile, oral solid and softgel dosage forms. Patheon offers a comprehensive range of services spanning all phases and scales that is wider and deeper than any other CDMO.

Gain instant access to a fully integrated global facilities network. More than 8,000 scientific and professional staff. Over 40 years of experience and innovation. Unrivaled track record for quality and on-time performance. Specialized expertise in solubility enhancement, difficult to manufacture APIs and more. All delivered with speed and efficiency.

At Patheon we believe the world would be a healthier place if tomorrow's medicines were made available today.



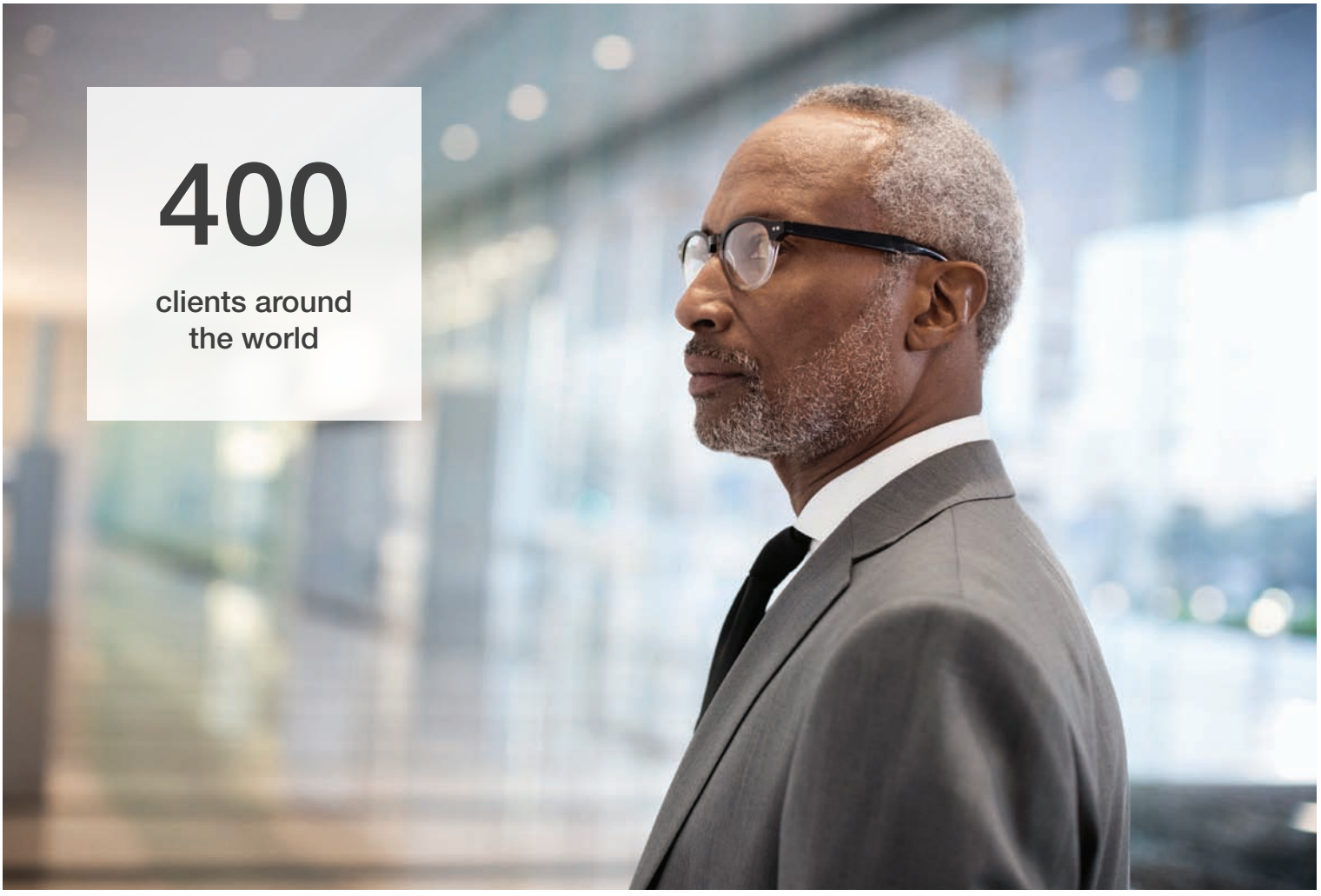
Innovation and expertise to transform the pharma industry.

Biologics

Comprehensive development services. Reliable cGMP manufacturing. Gain a competitive advantage in both with access to end-to-end, fully integrated services for drug substances and drug products with flexible capabilities and capacity across all bioprocessing stages and mammalian cell lines.

Small molecules

High-quality API via the development of a scalable process. Complete drug product services from preformulation screening through clinical development to commercial supply. A comprehensive range of dosage forms. Formulation expertise and unique solutions to overcome the toughest solubility challenges and accelerate your path to proof of concept.



Emerging pharma and biotech

Limited funding. Intense time pressures. Little experience or resources beyond the discovery phase. Patheon understands these unique challenges because 80% of our clients are emerging or midsize companies. Every day we remove barriers and provide instant access to decades of experience and comprehensive capabilities for the development and manufacturing of both large and small molecules.

Midsize pharma

Many of our midsize clients have recast the pharma business model with Patheon as their means to make that vision a successful reality. We are an end-to-end provider who can usher your discovery all the way from the lab to the patient. You'll have ready access to world-class facilities and highly customized development and manufacturing solutions. You'll have the agility to quickly scale up or down, maintain a lean infrastructure and focus on your next breakthrough.

Large pharma

Capacity. Responsiveness. Reliable quality. This is why the world's top 20 pharmaceutical companies put their trust in Patheon. Manage the ups and downs of demand. Mitigate risk with redundant resources. Take advantage of opportunities in markets around the globe. With Patheon as your strategic partner you'll have access to innovative solutions that will preserve your capital and in-house resources.

Generic pharma

As generic opportunities grow increasingly complex, Patheon offers the technical expertise, capacity and agility to capitalize on opportunities. With state-of-the-art facilities, reliable on-time performance and industry-leading regulatory compliance, Patheon will meet your strict timelines and provide a dependable, cost-effective ongoing supply.

#1

provider of pharmaceutical development services

Fully integrated services for speed, flexibility and efficiency.

Small molecule API

- Non-cGMP process development
- cGMP manufacturing for all scales and phases
- Route scouting
- Comprehensive analytical services
- Process validation and technology transfer
- Microreactor flow chemistry
- Innovative technologies
- Highly regulated compounds
- Portfolio of APIs and intermediates

Biologics

- Non-cGMP process development
- cGMP manufacturing for all scales and phases
- Mammalian cell line development
- Comprehensive analytical services
- Cell clarification and chromatography

Early development

- Drug substance characterization
- Rapid preformulation screening
- Formulation development
- Solubility enhancement
- Excipient compatibility testing
- Analytical method development and validation
- Fit-for-purpose early-phase clinical materials
- Release and stability testing
- IND/IMPD dossier support

Late development

- Broad range of oral solid, sterile and softgel dosage forms
- Manufacturing process development
- Analytical method development and validation
- Product release and stability testing
- Clinical trial material manufacturing
- Primary packaging
- Regulatory dossier support

Approval and post approval

- Technology transfer
- Scale-up management
- Commercial manufacturing
- Packaging
- Regulatory services

800

products developed and manufactured

Lifecycle management services

- Modified release technologies
- Multi-therapy combinations
- Solubility enhancement
- Taste masking
- Lyophilization
- Prefilled syringes and cartridges

Unique solutions

- Patheon SoluPath*Flex*™
- Patheon Quadrant2™
- Patheon Quick to Clinic™
- Patheon OneSource™
- Custom manufacturing suites

Changing the way medicines are made.

Supply chain management

Tomorrow's breakthroughs shouldn't have to wait in yesterday's overly complex supply chain. Simplify all or part of yours with Patheon as your single source provider. You'll be able to access capabilities spanning API process development to life cycle management. Partner with us to maximize the time and cost efficiencies of a seamless, end-to-end solution. Or group portions of a project together to complement your own capabilities – clinical supply and stability studies or commercial manufacturing and packaging.

Patheon OneSource™

Take months off your development timelines by combining your drug substance and drug product development and manufacturing into a single customized solution. You'll be able to develop small molecules 8–12 weeks faster, and large molecules 14–20 weeks faster.

One partner one contract: No more managing multiple vendors and logistics.

Cross-functional team of experts: Ease collaboration and flow of information.

Dedicated program manager: A single point of contact for efficient communication.

Shared analytical activities and data: Eliminate redundancy.

Maximum value: Investors know and trust Patheon.

Custom manufacturing suites

Collaborate with us in the design, construction, management and operation of a fully equipped, state-of-the-art, cGMP manufacturing suite within one of our facilities. You'll benefit from our expertise in facility design, construction management, equipment selection, process development and technical transfers to ensure you have exactly the commercial product supply you need to succeed.

30

pre-approval inspection waivers

With access to capabilities of a global leader, what could you accomplish?

Steriles

Access extensive sterile pharmaceutical product development capabilities, including world-class expertise in lyophilization. With Patheon you'll also have access to a state-of-the-art commercial-scale cGMP manufacturing suite for prefilled syringes and cartridges. These ready-to-use dosage forms enable self administration of parenterals that once required a clinical visit. As the healthcare industry seeks to move treatments out of the clinic, Patheon is investing in capabilities that will keep you ahead in the evolving marketplace.

- Liquid small volume parenterals (SVP)
- Liquid large volume parenterals (LVP)
- Lyophilized vials
- Prefilled syringes
- Cartridges

Oral solids

Bring more than 40 years of experience to your project. Access 40+ conventional and specialized oral solid dosage forms. Further expand your options with innovative combinations of these forms and a variety of controlled-release technologies. All these choices are executed with the expansive scientific resources and expertise to rapidly develop successful formulations for even the most complex APIs, including highly potent compounds and controlled substances.

Conventional

- Immediate-release tablets
- Powder-filled capsules
- Powders, granules and coated beads

Specialized

- Liquid-filled capsules
- Controlled-release tablets
- Multilayer tablets
- Fast-dispersible tablets

Softgel

- Softgel capsules
- Twist-off softgels
- EnteriCare® enteric softgel technology
- LiquiSoft™ chewable liquid-filled softgels
- Versatrol™ controlled-release softgel technology
- Solvatrol™ solubility enhancement technology
- Softlet® gelcaps
- Chewels® chewable gels

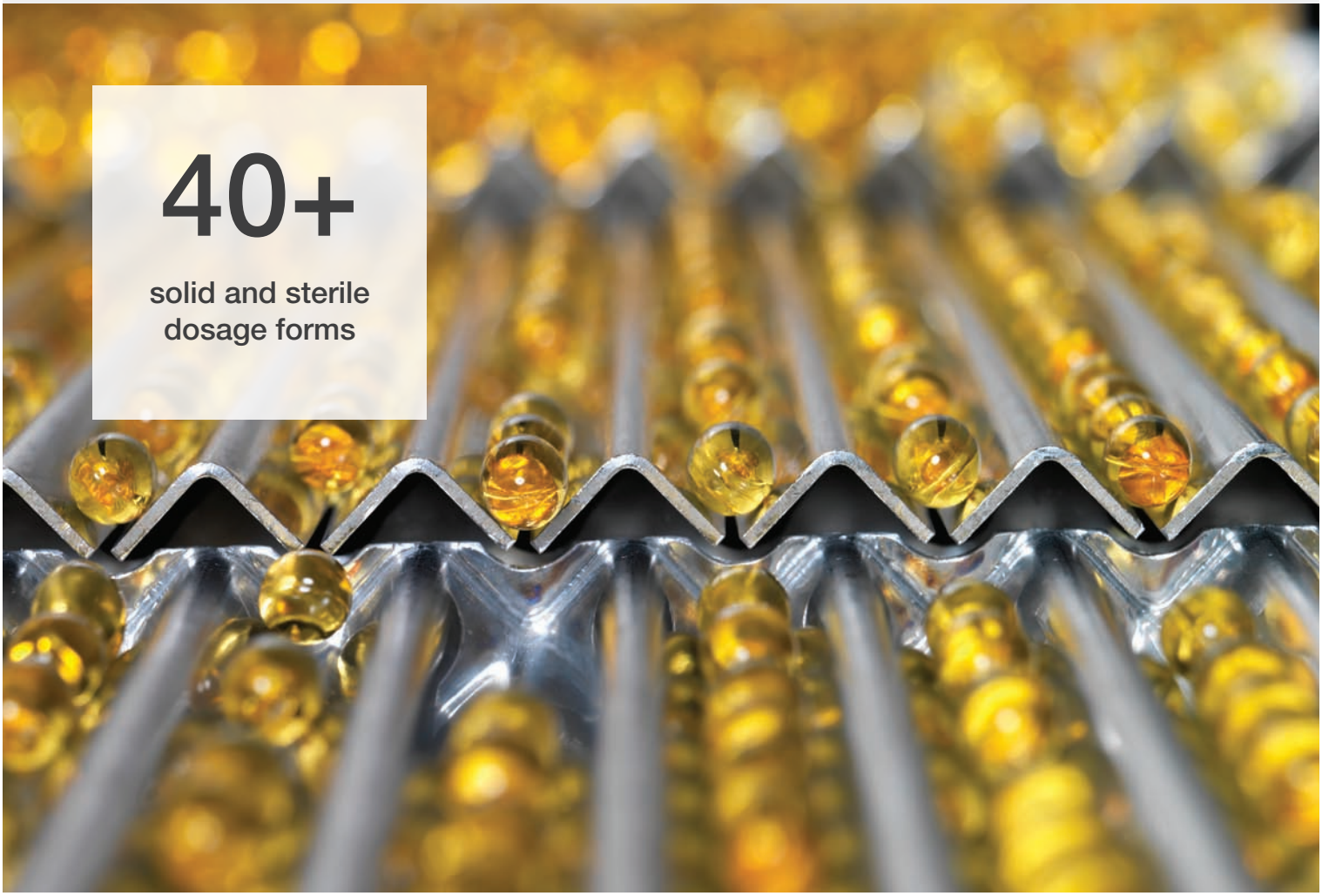
Patheon Quick to Clinic™ – Phase I supply in as little as 12 weeks

Only twelve weeks from receipt of your API, Patheon Quick to Clinic™ can deliver bulk clinical trial materials for First-in-Human trials. That includes a one-month stability study so you have all the data you need to make informed proof-of-concept decisions and complete regulatory submissions. Get maximum speed and quality with the choice of six dosage forms: blend in bottle, blend in capsule, API in bottle, API in capsule, oral liquid and softgel capsule.

No other CDMO can get you to Phase I clinical trials faster with more dosage options, higher quality and more built-in value.

Patheon solubility enhancement solutions

The experience of thousands of successful projects paired with exceptional capabilities in enhancing the solubility of BCS II and IV classified drug substances. You'll work directly with a Patheon solubility expert to meet the needs of your molecule, timeline and budget with a custom-tailored complete solution. Predictive modeling. Comprehensive analytical services. Preformulation characterization and technology screening. Formulation design and process development built upon computer modeling and Quality by Design principles. Clinical-scale cGMP manufacturing and the full breadth of solubility enhancement technologies, including proven solutions available nowhere else.



Unique solutions. Delivered.

68

successful technology transfers in the last two years.

Early phase API process development

High-quality API via the development of a scalable process that will meet demands at each stage of your product's life cycle. Capabilities in Europe and North America that span a vast range of complex chemistries ensuring you'll have exactly the solution you need.

Portfolio of APIs and intermediates: High-quality APIs and intermediates made by Patheon in the same facilities, and to the same stringent standards as our custom manufactured projects.

Microreactor flow chemistry: Get the efficiency, flexibility and scalability of the lab of tomorrow made reliable at commercial scale today only from Patheon.

Hydrogenation: Leverage this high-yielding, environmentally friendly reduction reaction at any scale with an exceptionally wide selection of process technologies and reaction systems.

Advanced catalysis: Make more of your most challenging discoveries and most complex processes feasible with access to interdisciplinary route scouting expertise, 2,000+ enzymes, proprietary biocatalytic processes and scale-up timelines reduced from years to months.

Polymers: Create completely unique products by combining proprietary process technologies, polymer science, advanced synthesis and large-scale cGMP production expertise.

Patheon SoluPath*Flex*™ – the customizable, fixed-price way to rapidly improve solubility

Quickly advance your project through solubility challenges with a customized solution. You'll sit down with a solubility expert to make the optimal selection of solubility enhancement technologies based on your molecule. You'll receive a detailed quote within days to launch a program tailored to your molecule, timeline and budget.

Patheon Quadrant2™ bioavailability enhancement design technology

Patheon Quadrant2™ is our computer-assisted formulation design platform for bioavailability enhancement. Following Quality Target Product Profile (QTPP) guidelines, it enables faster, broader and more rigorous formulation design and development. Additional complementary technologies include a free drug assay, phase diagrams, physical stability mapping and analytical development. The scientifically disciplined approach of Patheon Quadrant2™ will pay off at every stage of your product's life cycle.

62

NDA approvals – more than any other CMO

86

NME and non-NME approvals

Get the full spectrum of pharmaceutical development and manufacturing services.

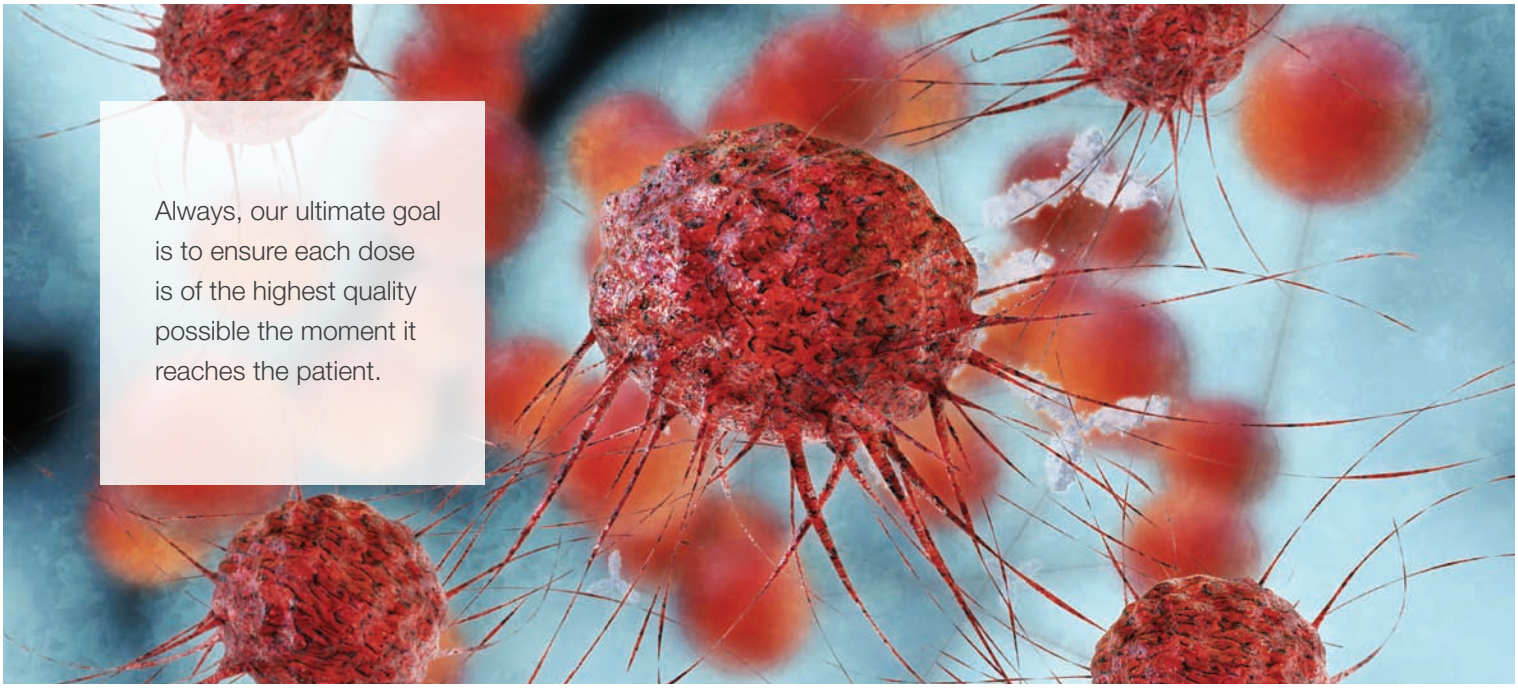
Quality without compromise

Success in business is based on trust. Especially in pharmaceuticals. By putting quality at the core of everything we do, Patheon has earned the trust of companies around the world – and those clients the trust of patients.

We pursue improvement in every area of the business by proactively seeking out opportunities to prevent problems before they occur, and continuously examine and refine systems and processes. As a result, our regulatory compliance and Right First Time/On-Time performance are second to none. And our ability to generate time and cost efficiency without compromising quality has drawn companies from every corner of the industry.

Make our regulatory success your success

We welcome the opportunity to prove we meet the most rigorous standards. Over the last nine years, Patheon facilities have undergone 2,160 regulatory and client inspections. That includes approximately 250 FDA inspections that nearly a fifth of which resulted in zero observations and zero warning letters. Because of this strong track record, Patheon has had 30 PAIs waived by the FDA.



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80%

of our clients are emerging or midsize

75

number of countries products we make are distributed to

33%

of products we develop, we manufacture

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