Detailed Pitch Deck for Onsare R&D

Building the future of local manufacturing.

Building Nigeria’s First Locally Manufactured 3D Printers

Driving Technology Independence, STEM Empowerment, and Industrial Innovation

Problem Statement

Nigeria and Africa face grave challenges in accessing and sustaining advanced manufacturing technologies. The continent now relies heavily on imported 3D printers and related equipment. This not only renders the technologies prohibitively expensive but also imposes a perennial pressure on foreign exchange reserves. Servicing, spares, and technical support are also delayed and unreliable, raising barriers for schools, innovators, and industries that urgently need these tools.

In education, access to practical tools for STEM and engineering education remains limited. The majority of secondary schools, polytechnics, and universities lack affordable digital manufacturing technologies, and therefore the students are not well-equipped to deal with the demands of the Fourth Industrial Revolution. This shortfall is a direct cause of the growing mismatch between graduates and technical skill demands of industries.

Local startups and small businesses also face an uphill struggle. Prohibitively costly prototyping and inaccessibility of affordable hardware slash product development and sabotage Nigeria's startup ecosystem. As a result, many excellent ideas never see the light of day in the market, strangulating industrial growth and innovation.

The manufacturing sector itself has competitiveness challenges. Nigerian producers cannot as readily improve efficiency, reduce waste, or adopt rapid prototyping techniques that foreign rivals use to stay ahead without multi-functional and affordable equipment such as 3D printers. The unavailability of such technology undermines industrial self-reliance and widens the productivity gap.

Beyond economics, this is a challenge that has a social dimension. The absence of a local viable hardware manufacturing sector denies youth employment, entrepreneurial, and skills development opportunities. And Africa's growing sustainability crisis, especially in plastic waste management, remains largely untranslated for the opportunity that technologies like recycled 3D printing filament offer.

If these issues are not addressed with urgency, Nigeria risks falling behind the global race to digital and advanced manufacturing, foregoing the opportunity to productively engage its young population, reduce import dependency, and establish a self-sustaining innovation ecosystem.

The Problem (National Context)

High Import Costs

Nigeria imports all its 3D printers, often at ₦2M–₦3.5M per unit.

Barrier for Schools & Universities

Budgets are stretched; most lack access to 3D printing labs, limiting STEM skills.

Barrier for SMEs & Startups

Prototyping is expensive and time-consuming; many rely on foreign service providers.

Barrier for Industry

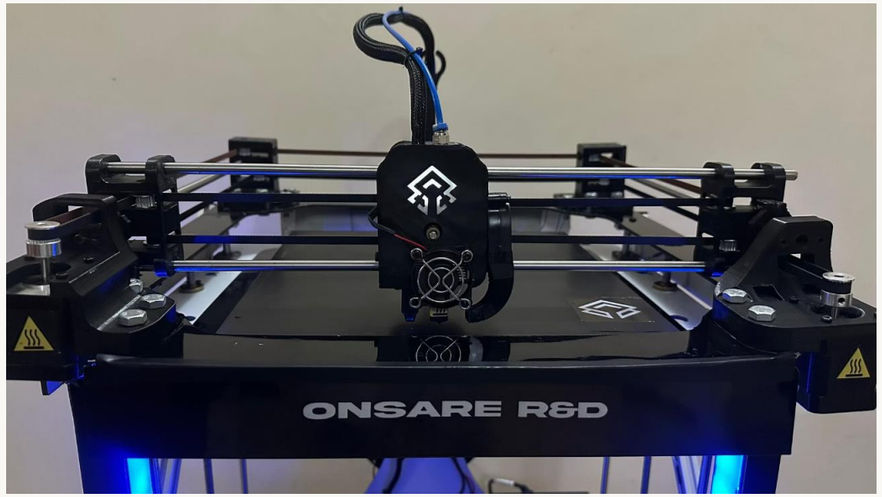
Healthcare, automotive, defense, and manufacturing cannot locally prototype parts quickly.

This creates:

- Foreign exchange losses (millions of dollars spent yearly).
- Technology dependency on imported hardware.
- Missed opportunities for Nigerian youth and entrepreneurs.

Our Solution

Locally manufactured affordable 3D printers: ₦1.6M per unit.
up to 40% cheaper than imports of this dimension.



Designed with Nigerian conditions in mind:

- Robust frame.
- Easy-to-replace parts with local availability.
- Local after-sales support & training.
- Power Efficiency

Focus areas:

- Government & Research – Defense, medical, and industrial R&D.
- Industry – Enable SMEs to prototype locally.
- Education – Equip schools, polytechnics, and universities.

About Onsare R&D

Onsare R&D is a Nigerian engineering company founded in 2024, dedicated to developing affordable, locally manufactured 3D printers and industrial solutions. Driven by a young, dynamic team of engineers, we combine innovation, technical expertise, and passion to deliver products that empower innovators, schools and industries across Africa. Our strength lies in turning research into practical, market-ready technologies while creating opportunities for local talent and advancing Nigeria’s industrial self-reliance.

Dynamic Team

A young, dynamic team of engineers specializing in mechatronics, electronics, and product design.

Proven R&D

Completed R&D and prototyping phase — functional prototype already built.

Track Record

Prototyped additive manufacturing hardware and automated systems. 4 years experience in the additive manufacturing industry.

> **Mission: To drive local manufacturing excellence by transforming research into commercially viable products, while creating jobs, inspiring innovation, and reducing Africa’s dependence on imported technology.**

> **Vision: To empower Africa’s industrial future by developing and manufacturing affordable, world-class technologies locally, and becoming the continent’s leading hub for engineering innovation and technology independence.**

National Benefits of Partnership

National Development

- Support “Made in Nigeria” initiative.
- Save foreign exchange by reducing imports.
- Create potential export hub for West Africa within 5 years.

Industrial & SME Growth

- Reduce prototype turnaround from 6–8 weeks (imported) to 2–3 days (local).
- Lower costs → boost SME competitiveness.
- Expand local innovation in medical devices, automotive parts, architecture, agriculture tools.

Job Creation

- 50 direct jobs (engineers, technicians, assembly, QA).
- 100+ indirect jobs (suppliers, logistics, trainers, distributors).
- Opportunity to train the next generation of Nigerian engineers.

Education

- Deploy printers to 200+ schools and polytechnics in Phase 1.
- Empower students with hands-on STEM learning.
- Aligns with government’s STEM and TVET goals.

Market Opportunity

The demand for mid-cost and reliable 3D printers in Nigeria and across Africa is increasing extremely quickly as education, manufacturing, and innovation ecosystems increase. While the global 3D printing industry is valued at over $20 billion and experiences double-digit expansion, Africa only captures a small percentage because it relies on costly imports and the lack of local production.

Nigeria's schools and universities require affordable STEM education equipment right away, and small and medium-sized enterprises and innovators need cheap prototyping capabilities to bring products to market. Industries such as healthcare, automotive, and construction already begin to adopt additive manufacturing but are stymied by expensive imports and high supply costs. By producing locally made, affordable 3D printers, Onsare R&D is strategically positioned to unlock this untapped potential, deriving business not only in the sale of machines but also in training, after-sales support, and locally sourced materials.

supporting Nigeria's industrial self-sufficiency while capturing a huge portion of Africa's digital manufacturing economy.

Education Sector:

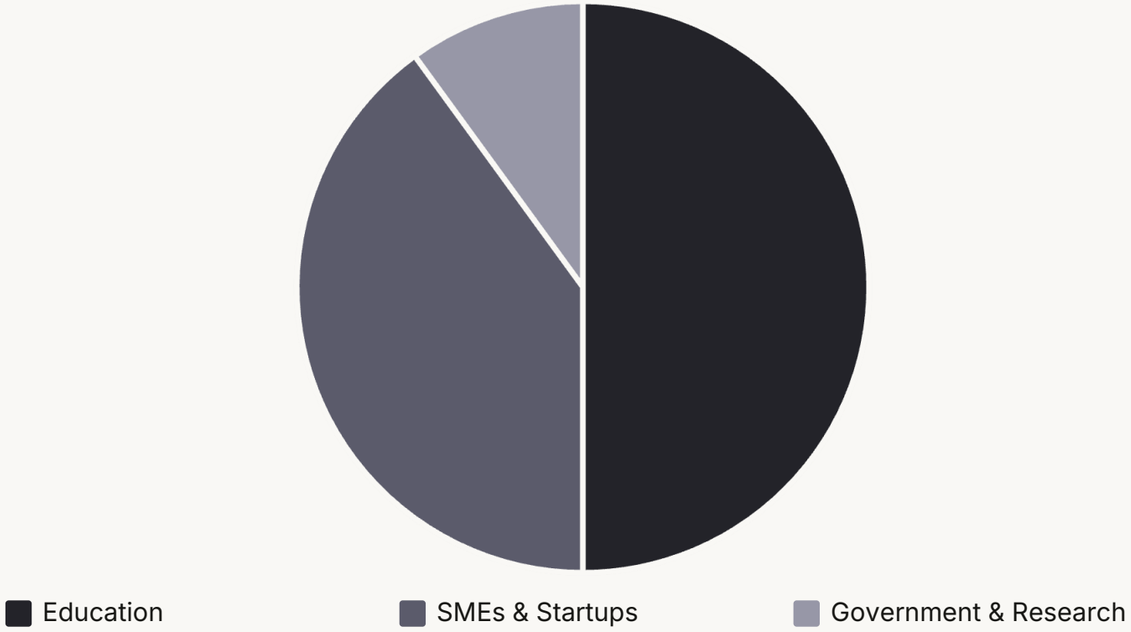
- 170 universities, 140 polytechnics, 110 federal unity schools.
- Market potential = ₦20B+ even with 50% adoption.

SMEs & Startups:

- Over 41 million SMEs in Nigeria (SMEDAN).
- Even a small % adoption drives demand for 500–1,000 printers yearly.

Global and Continental Market :

- Additive manufacturing projected to hit $50B by 2030.
- **Nigeria can claim a slice by being first local manufacturer in Africa.**



The chart illustrates the potential market share across key sectors for Onsare R&D's 3D printers in Nigeria.

Our Production Plan.

01

Phase 1 (Months 1–6)

- Factory setup.
- Hire & train 20+ staff.
- Pilot production (20–30 printers).

02

Phase 2 (Months 7–118)

- Full production line: 100 printers/month.
- Distribution network with education & SME contracts.
- ROI achieved in 9–10 months.

03

Phase 3 (Months 18+)

- Scaling to 200–500 printers/month with injection molding & CNC.
- Regional expansion into West Africa.

Why Partner With Us?

Partnering with Onsare R&D offers a strategic channel to propel Nigeria's vision in industrialization, education, and sustainability. Being a locally based company with young engineers, we merge innovation, technical capabilities, and passion to deliver affordable, locally made 3D printers for African needs. Through collaboration with us, the government and its agencies can directly reduce dependence on costly imports, save valuable foreign exchange, and promote local content development. The collaboration will also provide high-value employment in engineering, manufacturing, and technical support while equipping thousands of students with practical STEM skills that prepare them for the future of work.

Also, our emphasis on sustainability, like producing 3D printing filament from recycled plastics, is in tune with the national waste management and circular economy agenda development. An investment in Onsare R&D is equal to giving Nigeria the ability to claim its share of the $20+ billion 3D printing global market, improve self-sufficiency, and position the country as a leader in Africa's digital manufacturing revolution.

First Mover Advantage

Nigeria’s first indigenous 3D printer brand.

Government Policy Alignment

Matches NASEI mandate (industrial innovation, STEM).

Proven Prototype

Already developed, ready to scale.

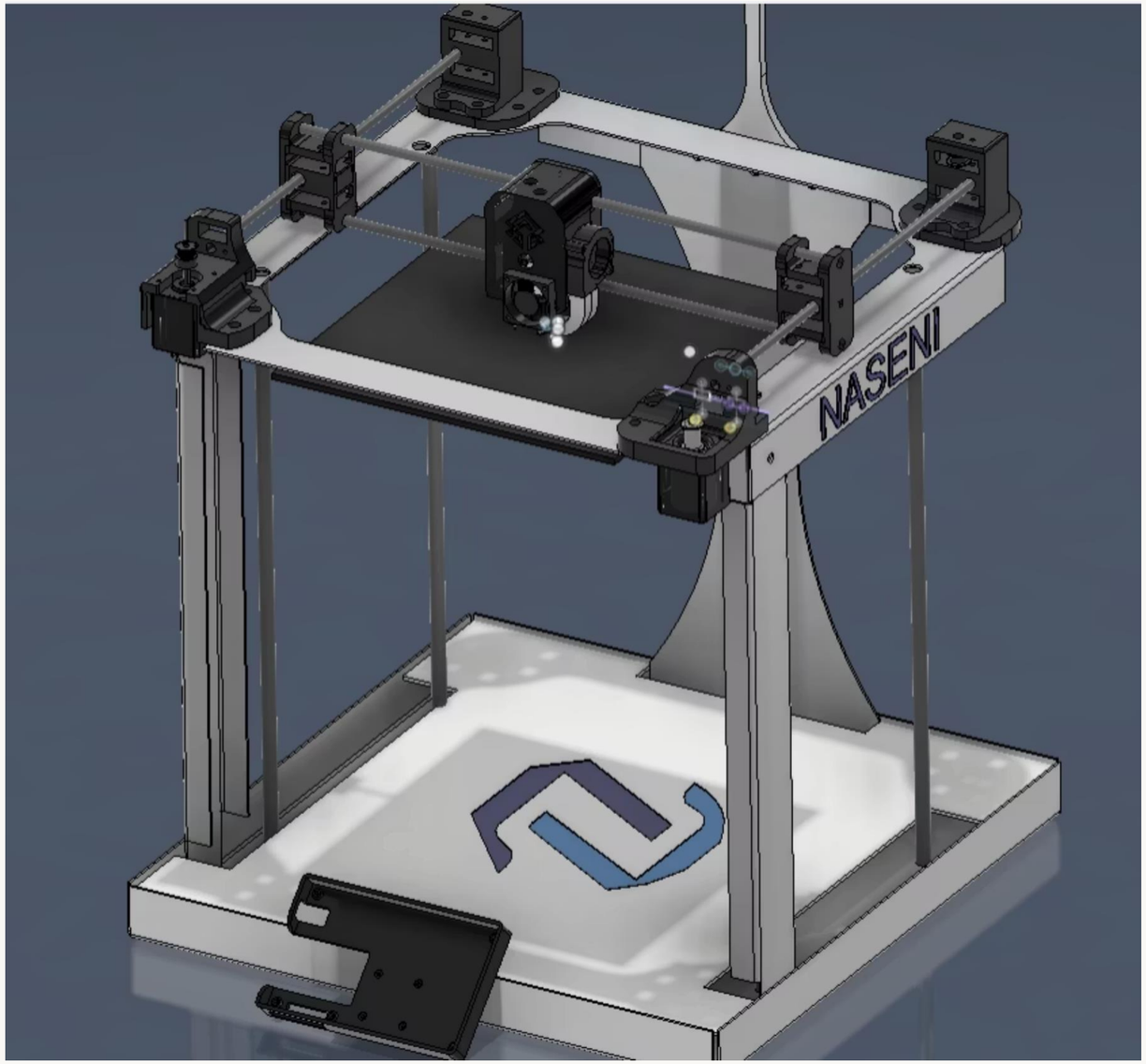
Young Nigerian Engineers

Builds local talent pool and reduces brain drain.

Scalable Business Model

Profitable at 100 units/month, expandable to 500+.

NASENI BRANDED 3D PRINTER



What We Are Asking

Government Support Needed:

Co-Investment:

₦238.46M Required CAPEX for initial factory setup and a ₦178m Working Capital(for 200 units).

Policy Backing:

Local preference procurement policy.

Market Access:

Facilitate adoption in government schools & institutions, linkage to other African Government Engineering Agencies.

Technical Support:

Collaboration with research institutes.

What Government Gains: Return on Partnership.

Technology Independence

Nigeria enters advanced manufacturing space.

STEM Empowerment

Nigerian students gain global-standard skills.

Revenue

Long-term tax generation from growing company.

Job Creation

Direct & indirect employment for youths.

Visibility

Government showcased as enabler of youth-led innovation.

National Pride

“Made in Nigeria 3D Printers” become a flagship project.

Risk Mitigation

Supply Chain Risk
Source metals, plastics, and electronics locally where possible.

Quality Risk
ISO-aligned testing procedures (QA jigs, batch testing).

Financial Risk
Conservative scaling, ROI <12 months ensures sustainability.

Talent Risk
Partnership with polytechnics for continuous training.

Call to Action

With your support, we can transform Nigeria from an importer of technology to a manufacturer and exporter.

Next steps:

- Establish joint working group.
- Sign MoU.
- Pilot production launch .

NASENI x ONSARE R&D

Engineering Nigeria's Future

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