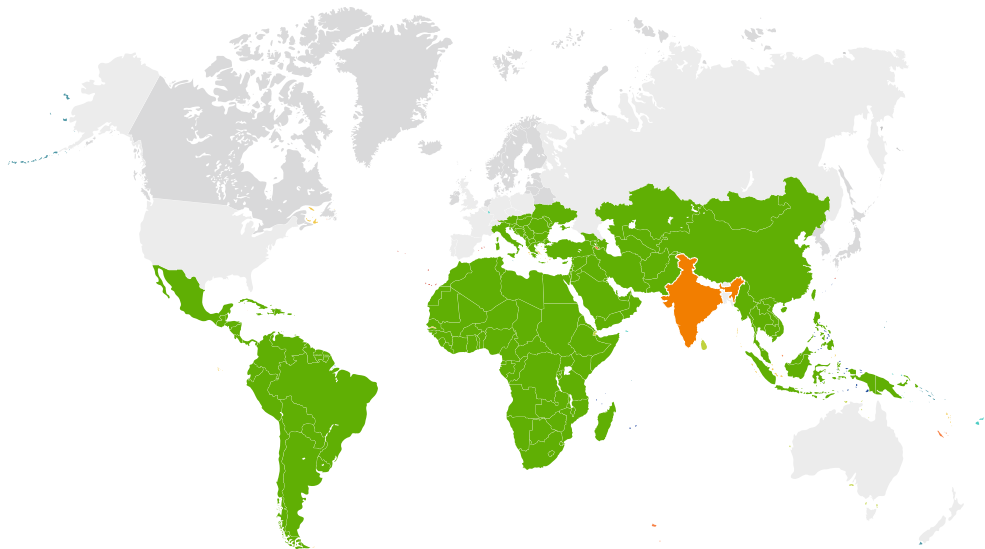




Enabling One Health through **Bio-innovation**

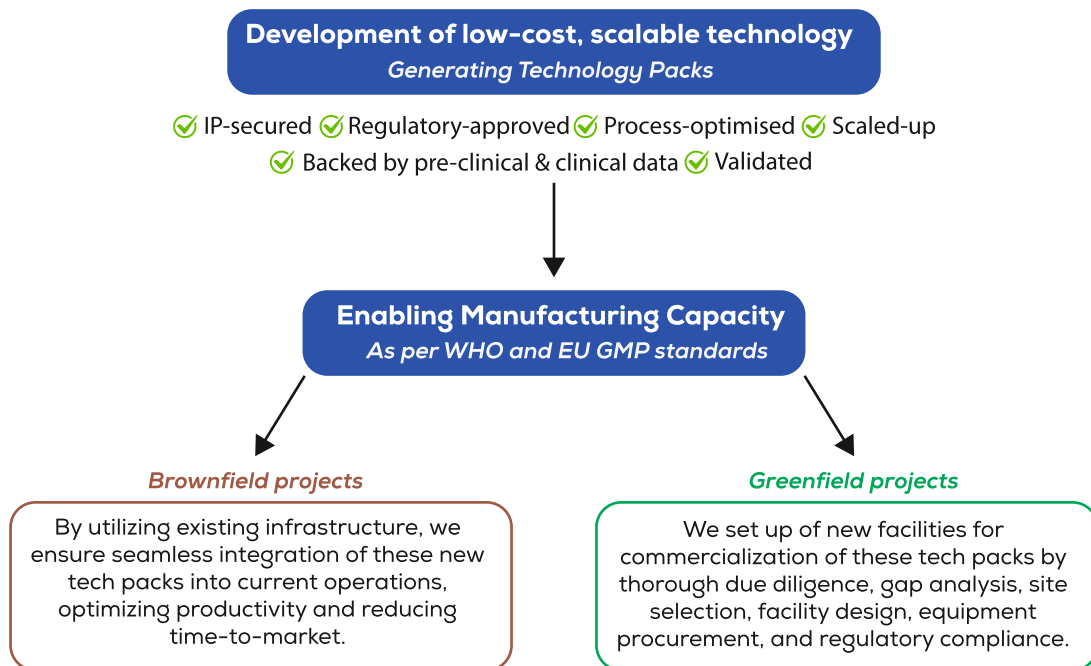


- Affordable
- Accessible
- Acceptable

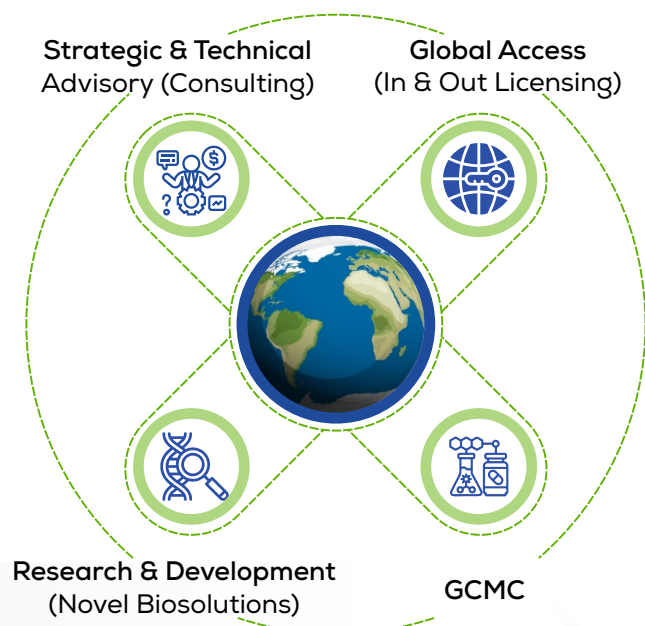


Leaving No One Behind (LNOB)

TechInvention is focused on one of the three-pronged strategic development initiatives of the United Nations 2030 Sustainable Development Goals (SDGs) ambition of 'LEAVING NO ONE BEHIND' (LNOB). This initiative aims to reach those furthest behind first, particularly those who lack the choices and capabilities necessary to benefit from human development.



Our Multipronged Approach to One Health

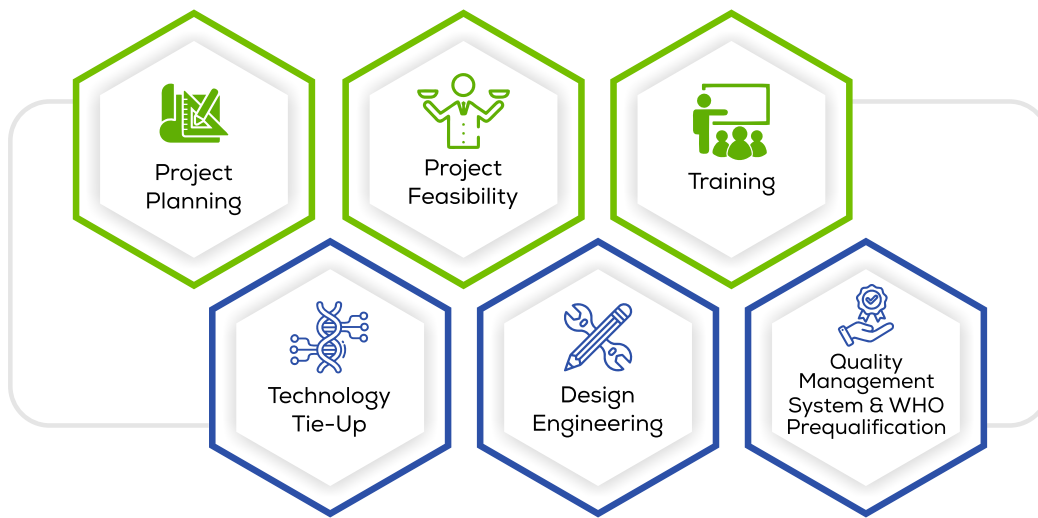




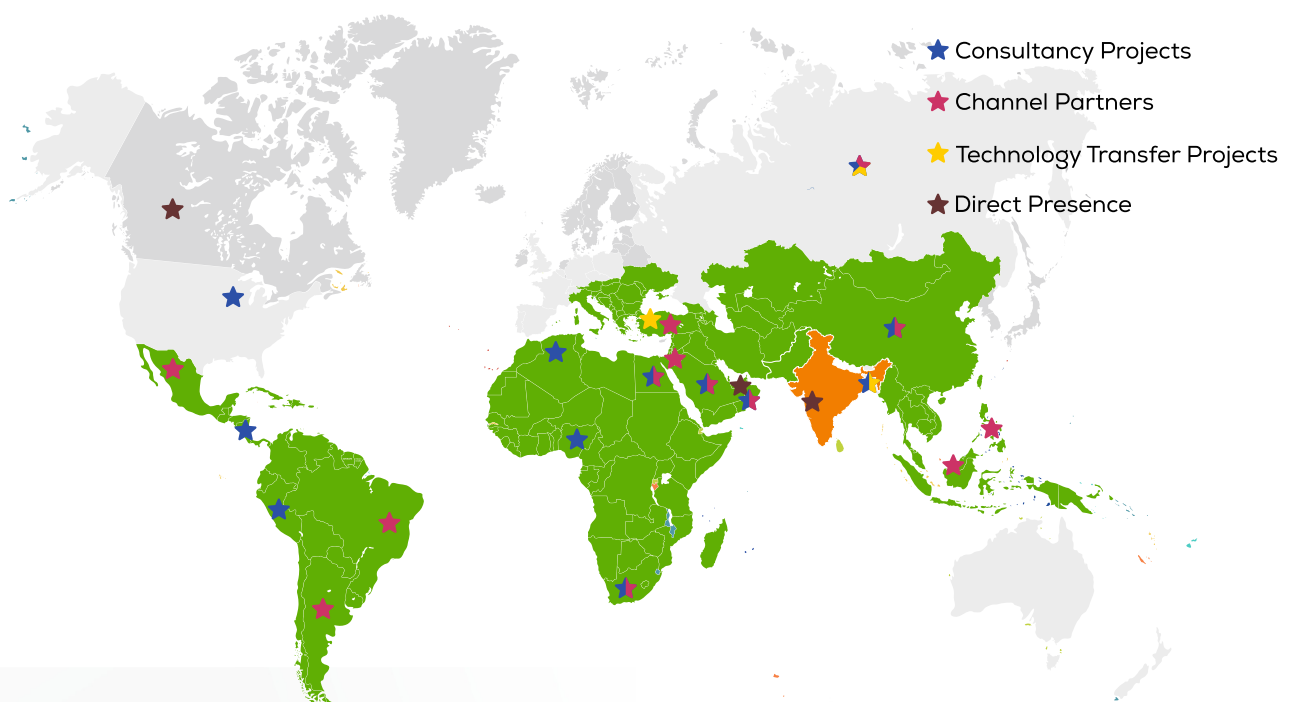
Strategic & Technical Advisory (Consulting)

We offer our expertise and support in capacity building to enable local manufacturing of biologics and vaccines.

Our key areas are



Global Projects





Global Partners

Funding Partners



Institutions



Organizations





Global Access (In & Out Licensing)

Through our network of partners in 20+ countries, we can help in providing compliant and affordable technology and also support you with local clinical trials, regulatory licensure, IP services (patent drafting, patent filings, freedom to operate analysis, non-infringement opinion, prior art analysis, patentability analysis, and prosecution of patent application in India and other countries), and supplies of vaccines and novel biologics.

Our key areas are:



Global
Licensing



Technology
Transfer



Clinical
Trials



IP &
Regulatory
Support



We facilitate in-licensing and out-licensing partnerships that bring together companies with complementary competencies to strengthen pipelines, achieve economies of scale, advance technologies, and introduce commercial products to market.

Status of in licensed products

Vaccines	Key feature	Status
Hepatitis A	Technology transfer and Manufacturing of Hepatitis A vaccine for the first time in India	Commercialized
OCV	World's first and only oral cholera vaccine in LDPE pack	
Varicella	Increasing the accessibility of the vaccine in India to protect against chickenpox	Clinical trial in-progress
Tdap	World's first recombinant acellular pertussis vaccine	
DTwP- sIPV-HepB-Hib	Probably the world's first hexavalent with whole cell pertussis (wP) with sabin IPV	
DTaP- sIPV-HepB-Hib	Probably the world's first hexavalent with acellular pertussis (aP) with sabin IPV	R&D

Status of in licensed products

Vaccines	Key feature	Status
<i>Toxoplasma gondii</i>	Low cost antibody detection kit encompassing recombinant fusion protein for broader range of detection	Validation
Pregnancy kit for cattle	Probably world's first and only Urine-based pregnancy detection kit for Cattle	



Research & Development Pipeline (Novel Biosolutions)

TechInvention's indigenous portfolio aims to tackle infectious diseases and the prevailing global concern of antimicrobial resistance, thereby contributing to the ultimate goal of One Health. Our multipronged approach encompasses diagnostics, vaccines, and novel biotherapeutics such as monoclonal antibodies and lysins.

Vaccines

Recombinant Platform Technology				
Target pathogen	R & D	Proof-of-concept studies	Preclinical studies	
SARS-CoV-2				
Meningococcal serogroup B				
Conjugate Platform Technology				
Target pathogen	R & D	Proof-of-concept studies	Preclinical studies	
Streptococcus pneumoniae - 16				
Shigella				
Meningococcal serogroup ACYW				
Combination				
Target pathogen	R & D	PoC	PCT	CT
DT wP-HepB-Hib-IPV(Sabin)				
DT aP-HepB-Hib-IPV(Sabin)				
Hexavalent Meningococcal serogroup ACYWX+B				
Fractional Dose				
Target pathogen	R & D	Proof-of-concept studies	Preclinical studies	
Sabin IPV				



Research & Development Pipeline (Novel Biosolutions)

Biotherapeutics

Monoclonal Antibodies - Phage Display Technology				
Target pathogen	R&D	PoC	PCT	Status
Viral				
SARS-CoV-2				Neutralization assay completed
Chikungunya virus				
Dengue virus				
Cytomegalovirus				On-going

Diagnostics

Diagnostic Tests - Humans				
Type	R&D	Validation	Manufacturing	Commercialization
Extraction Kits (Silica Based)				
DNA				
RNA				
Gel				
Plasmid				
Total nucleic acid				
Cell free DNA				
RT-PCR Panels for infectious diseases				
Respiratory (22 pathogens)				
STI (11 pathogens)				
UTI (22 pathogens)				
GI (22 pathogens)				
AMR				
Diagnostic Tests - Animals				
Type	R&D	Validation	Manufacturing	Commercialization
Urine-based pregnancy kit for cattle				

Global Centre for Medical Countermeasures (GCMC)

• The Problem

In the field of translational biotech research in healthcare, Centres of Translational Research Excellence aim for scientific innovation but face challenges with GMP scale-ups and regulatory approvals. Additionally, there are significant hurdles in technology transfer, particularly across low- and middle-income countries (LMICs), to facilitate local manufacturing.

• Our Solution

To address this issue, TechInvention's the Global Centre for Medical Countermeasures (GCMC) will serve as a 'pivotal technology development and transfer centre' that operates in close collaboration with the Centers of Research Excellence (CoRE) which would potentially be sources of cutting-edge technologies.

The outcome would be:

- 1 Tech packs that are IP-secured, process-optimized, scaled up, validated, and regulatory-approved, backed by pre-clinical and clinical data.
- 2 Ready for the transfer of technology to identified brown field projects and green field projects, supported by Team TechInvention.



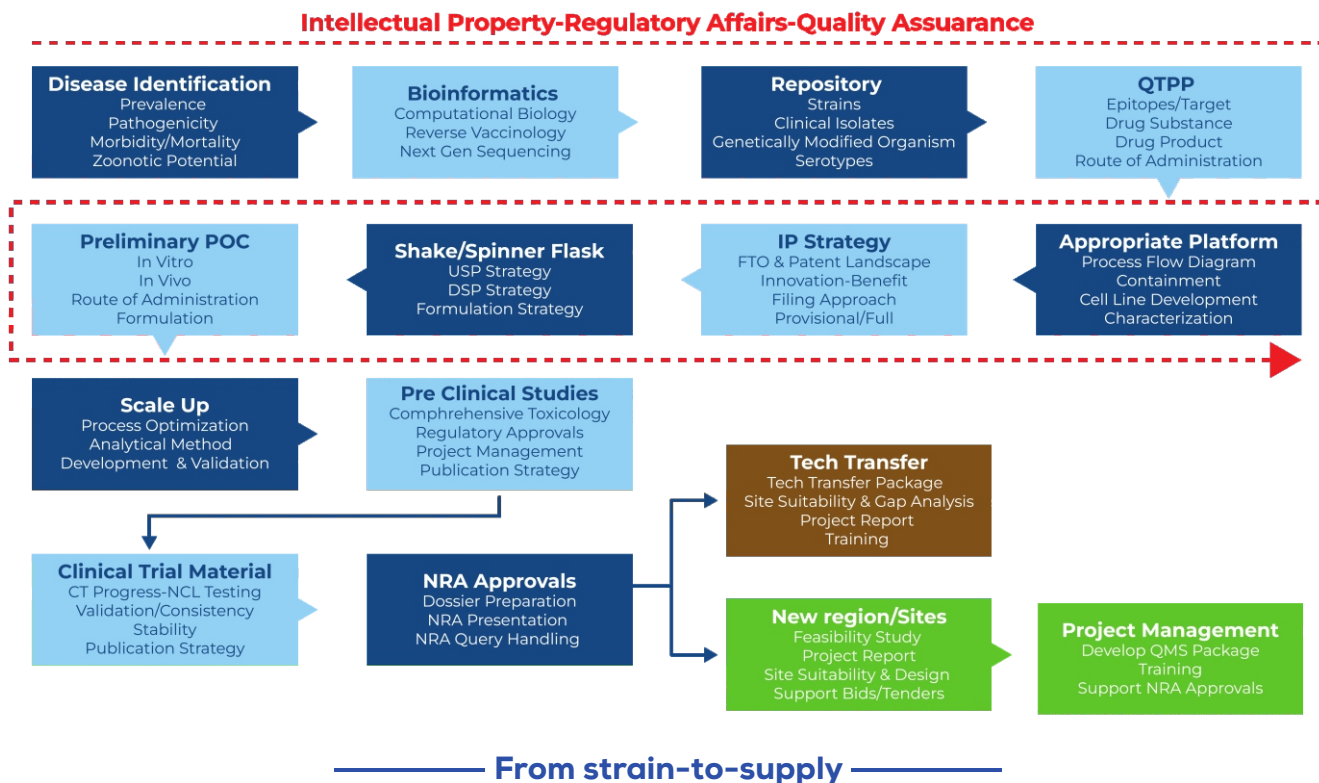
Our focus at GCMC is to help build solutions—that are

✓ Compliant ✓ Cost-effective ✓ Competitive ✓ Comprehensive



GCMC's Proposition

GCMC's scope for technology development will encompass meticulous steps.



GCMC's accreditation

- BSL-1/2 labs for accelerated R&D work
- Bioinformatics facilities
- Pilot-scale GMP manufacturing facility for vaccines and biologics
- Both Static and Single-use USP Line for DS
- Combi-line for filling Vials, Pre-filled syringe and Cartridges
- IP and regulatory support for necessary approvals
- QC and QA labs to support early scale-up
- Logistics and supply chain team

LOCAL PRODUCTION FORUM

Galvanizing regional partnerships for sustainable local production and equitable access

Dear Syed Saader Ahmed,

The 2nd World Local Production Forum (WLPF), which we hosted from 6-8 November 2023 in The Hague, brought together a global network of more than a thousand delegates from different sectors. They were all committed to improving timely and equitable access to good quality, safe and effective health products worldwide, through sustainable local and regional production. From the positive feedback the WHO and the Government of the Netherlands received, we are happy to conclude that it was a valuable stepping stone for many in taking this important ambition forward.

We would like to thank you for your participation, which was very much appreciated and contributed to the success of this second edition of the forum.

We hope you had meaningful and inspiring days in The Netherlands and that the programme, the parallel panel discussions and the networking with people from all over the world inspired you. It is also our hope that the WLPF provided you with new ideas, perspectives, policies, experiences and connections to take home and put into practice in the coming years.

It is important that the WLPF initiative is taken forward and the implementation of [the recommendations of the second forum](#) are pursued to help build sustainable national and regional ecosystems and to strengthen capacity for local production and voluntary technology transfer on mutually agreed terms. All with the goal of improving timely, equitable and sustainable access to medicines and other health technologies.

The WLPF will reconvene in 2025 in the United Arab Emirates, and all relevant stakeholders are encouraged to strengthen their engagement and provide support to the WLPF and the implementation of its recommendations. Let us follow the example of the three organizations which shared their concrete pledges in the closing session:

- The Global Collaborative Centre for Medical Counter Measures and Emerging Biopharma Manufacturers Network, as presented by Syed Ahmed.

Architectural floor plan of the first floor of a building. The plan shows various rooms including Services, Cafeteria + Utilities, Clinical Trials, Regulatory Affairs, Quality Assurance, Intellectual Property, and Bioinformatics Department + Training Centre, Integrated Research & Development Centre, Recombinant Proteins, Peptides, and Polysaccharides (PPP) API/Drug substances Manufacturing (GMP), Aseptic/Sterile Formulation & Filling (GMP) Vials & Pre-filled Syringes, In-vitro diagnostics (IVD) Manufacturing (GMP), Warehouse, Reception and lobby, and Utilities. The plan includes dimensions for room widths and lengths, as well as floor levels relative to a datum. A north arrow is located in the top right corner.

Rooms and areas shown:

- Services
- Cafeteria + Utilities
- Clinical Trials, Regulatory Affairs, Quality Assurance, Intellectual Property and Bioinformatics Department + Training Centre
- Integrated Research & Development Centre
- Recombinant Proteins, Peptides, and Polysaccharides (PPP) API/Drug substances Manufacturing (GMP)
- Aseptic/Sterile Formulation & Filling (GMP) Vials & Pre-filled Syringes
- In-vitro diagnostics (IVD) Manufacturing (GMP)
- Warehouse
- Reception and lobby
- Utilities

Dimensions and levels:

- Room widths: 4350, 3100, 3100, 4800, 4800, 3520, 375.
- Room lengths: 2200, 2200, 2100, 2100, 2700, 2700, 2100, 1500, 1500, 375.
- Floor levels: Terrace +19.77m Wl, Fourth Floor +16.67m Wl, Third Floor +13.57m Wl, Second Floor +8.77m Wl, First Floor +3.97m Wl, Ground Floor +0.45m Wl.
- Other dimensions: 19.77 [64'-10"], 1200, 1050, 450, 0.97.

Some of Our Stellar Firsts!

- Enabled setting up the **1st** state-of-the-art biopharmaceutical manufacturing facility in Central America
- Set-up of the **1st** R & D centre & technology transfer of Hepatitis B vaccine to Hacettepe University, Ankara, Türkiye
- Enabled **1st** technology transfer of Hib conjugate vaccine into a CIS country
- Developing **1st** novel paediatric combination vaccine (Hexa) – sabin IPV + wP/raP with a cross border partnership from 2 BRICS countries
- Bringing the world's **1st** recombinant pertussis vaccine to India
- Developed world's **1st** region-specific pneumococcal conjugate vaccine
- Developing world's **1st** hexavalent meningococcal vaccine
- Launching India's **1st** urine-based pregnancy detection kit in cattle



Awards & Achievements

- ★ A certified 'Deep Tech Pioneer' by the Hello Tomorrow organization of Paris
- ★ 2021 SME Excellence awardee in healthcare by SME Chmber of India
- ★ 30+ Research abstract acceptances in global conferences of repute
- ★ 4 Publications in high impact factor journals of global repute
- ★ 1 patent granted, 15+ applications filed
- ★ An ISO 9001:2015 certification
- ★ Named under the top 100 innovate SME's of 2021 by Innovation Council, Geneva

**WE ARE
DUN & BRADSTREET START-UP
TRAILBLAZER 2024**



Our commitment to sustainability

As an organization, we are committed to bringing greater health equity to people and nations all over the world. We recognize the privilege of the role we can play in improving healthcare in emerging and developing regions, especially at the grassroots level.



The health of soil, plant, animal and man is one and indivisible.

– Albert Howard



Let's collaborate... to accelerate