

NEXT GENERATION SUPPLY CHAINS FOR CELL & GENE THERAPIES AND ATMPs

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The need for harmonized and digitally integrated CGT* supply chains

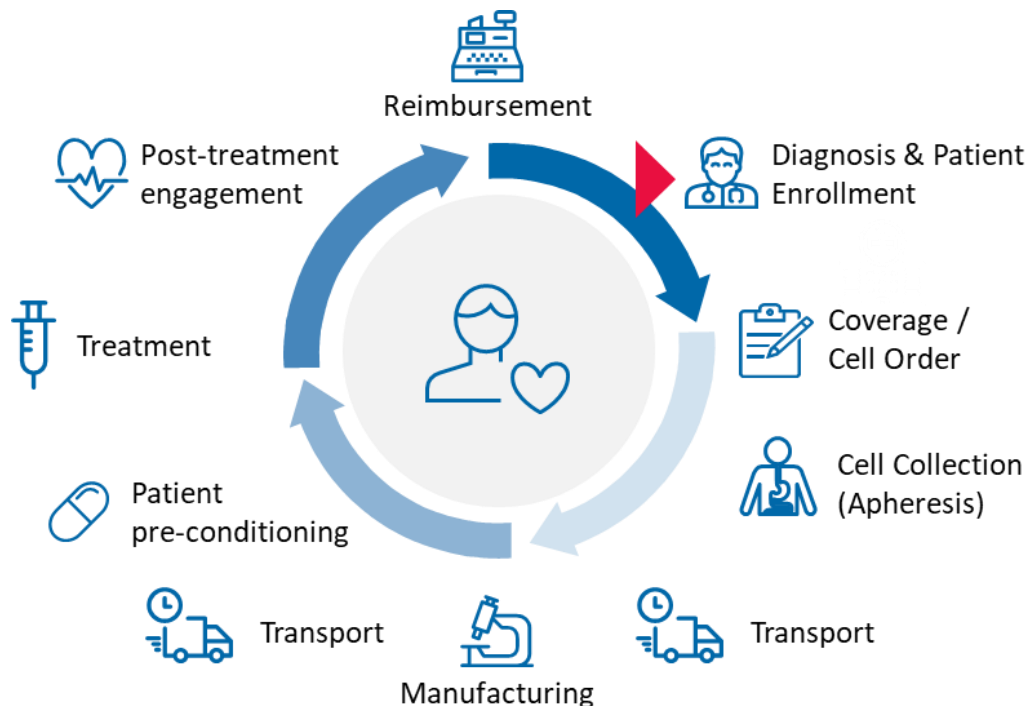
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*CGT: Cell & Gene Therapies

We all know: Cell & Gene is more than different

Physical and digital supply chains in CGT



CHARACTERISTICS



CLOSED-LOOP SUPPLY CHAIN

INDIVIDUAL HUMAN AS DONOR AND RECIPIENT OF PERSONALIZED MEDICATION



TIME, TEMPERATURE AND HANDLING SENSITIVE PRODUCT

- HUMAN PRODUCT WITH
- HIGHLY LIMITED SHELF LIFE



CLOSE EXCHANGE AND TRANSPARENCY

- HAS COLLECTION ALREADY TAKEN PLACE?
- WHERE AND IN WHAT CONDITION IS THE SHIPMENT?



VEIN-TO-VEIN VISIBILITY

- TRACKING THE MOVEMENT AND HANDLING
- LINKING THE INDIVIDUAL PATIENT AND THEIR INDIVIDUAL SAMPLES OR DRUG PRODUCTS



HIGH NUMBER OF INVOLVED STAKEHOLDERS

PATIENT, HCP, APHERESIS CENTERS, TREATMENT CENTERS, MANUFACTURING, PAYER, LOGISTICS, REGULATORY, [...]

Let's face as it is right now

Critical success factors



supply chain setups with **focus on clinical trials only** which do not consider later commercial operations



Manual, paper-based and/or not digital connected **processes,** systems & partners



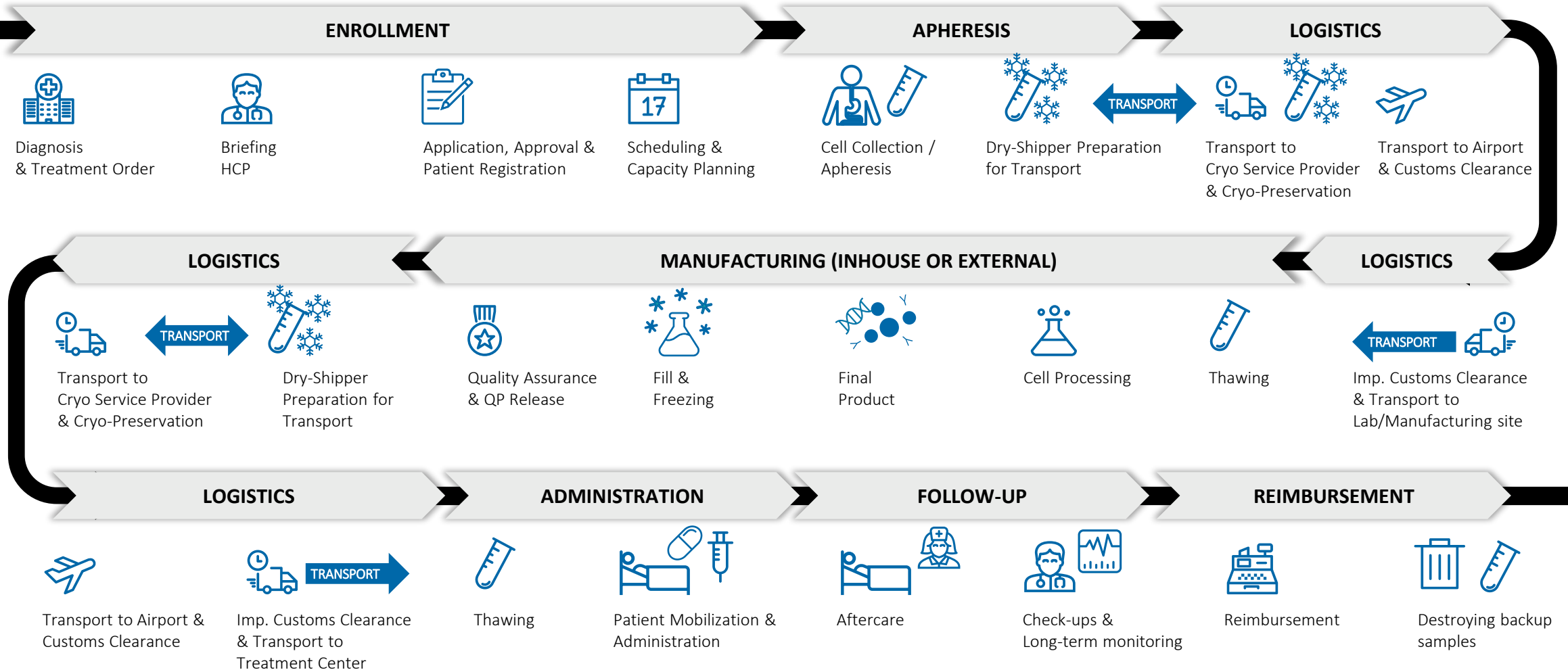
Awareness about need to setup new supply chains for CGT - but **involvement of partners too late**



Demand for full-service solutions not there yet; but **increasing need** in the future with rising tide of personalized treatments

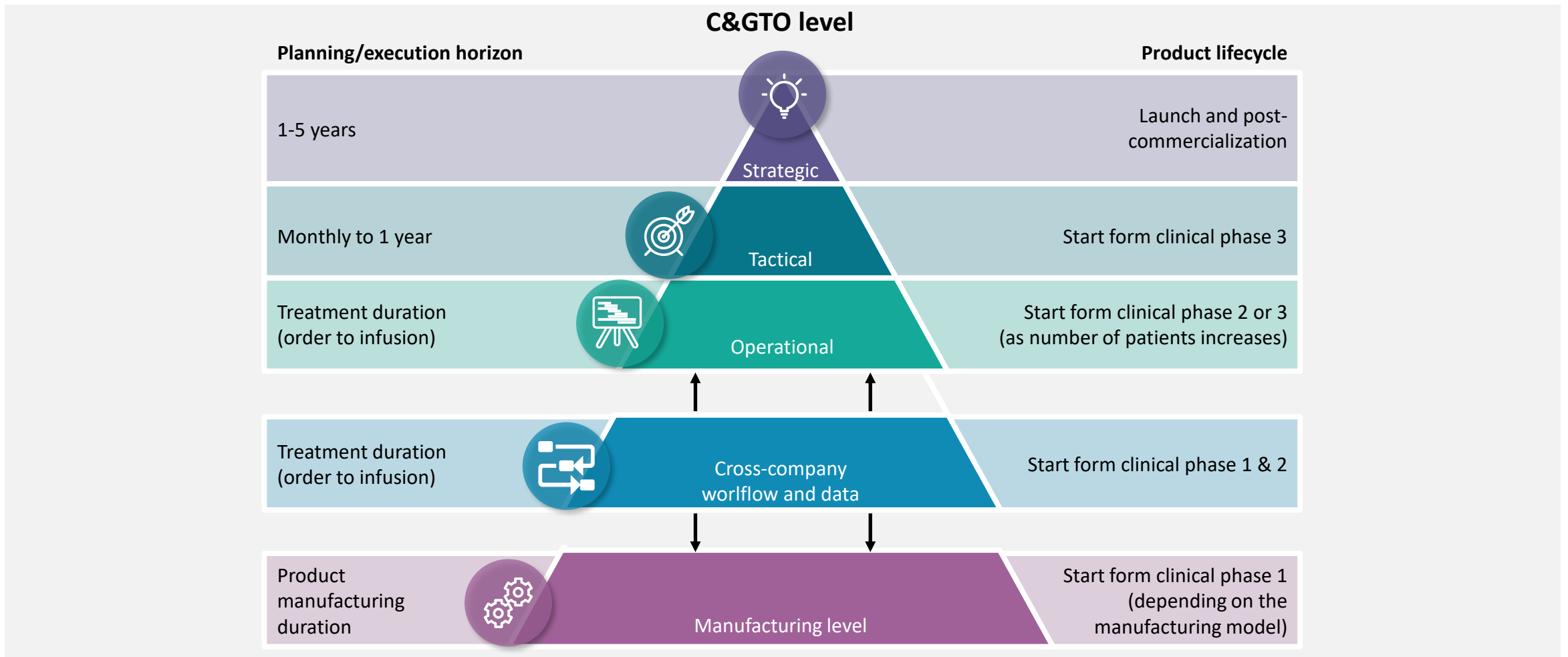
Dealing with complexity requires breakdown of silos

Flow at the example of an autologous therapy



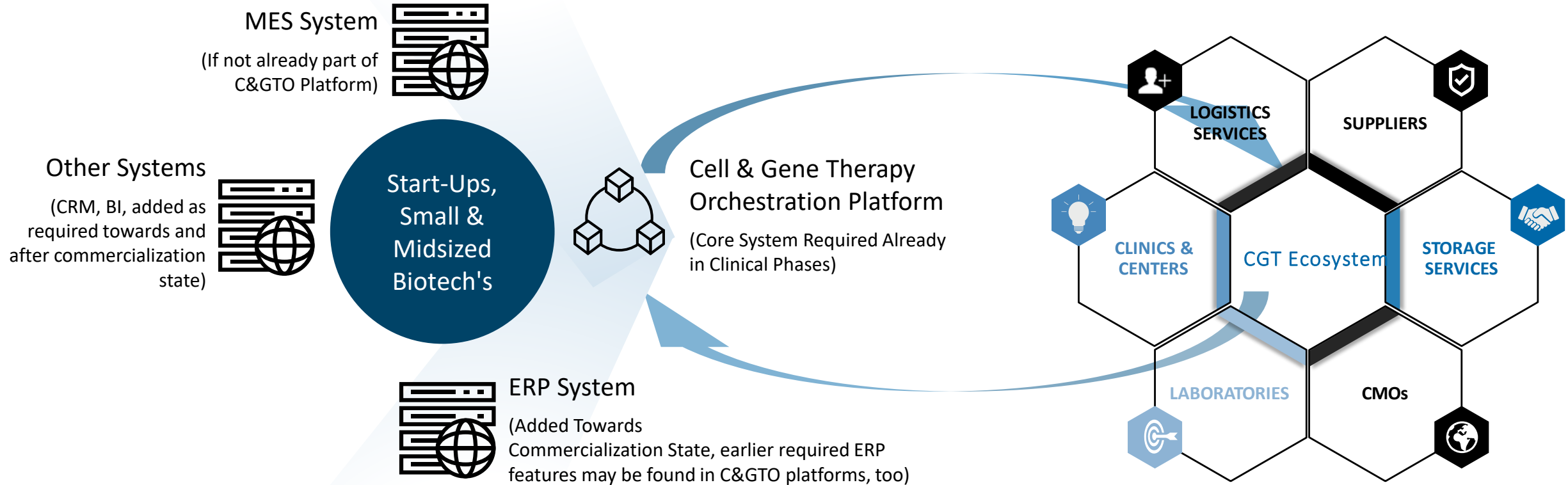
A different SCM approach

Cell & Gene Therapy Orchestration – A new supply chain management discipline



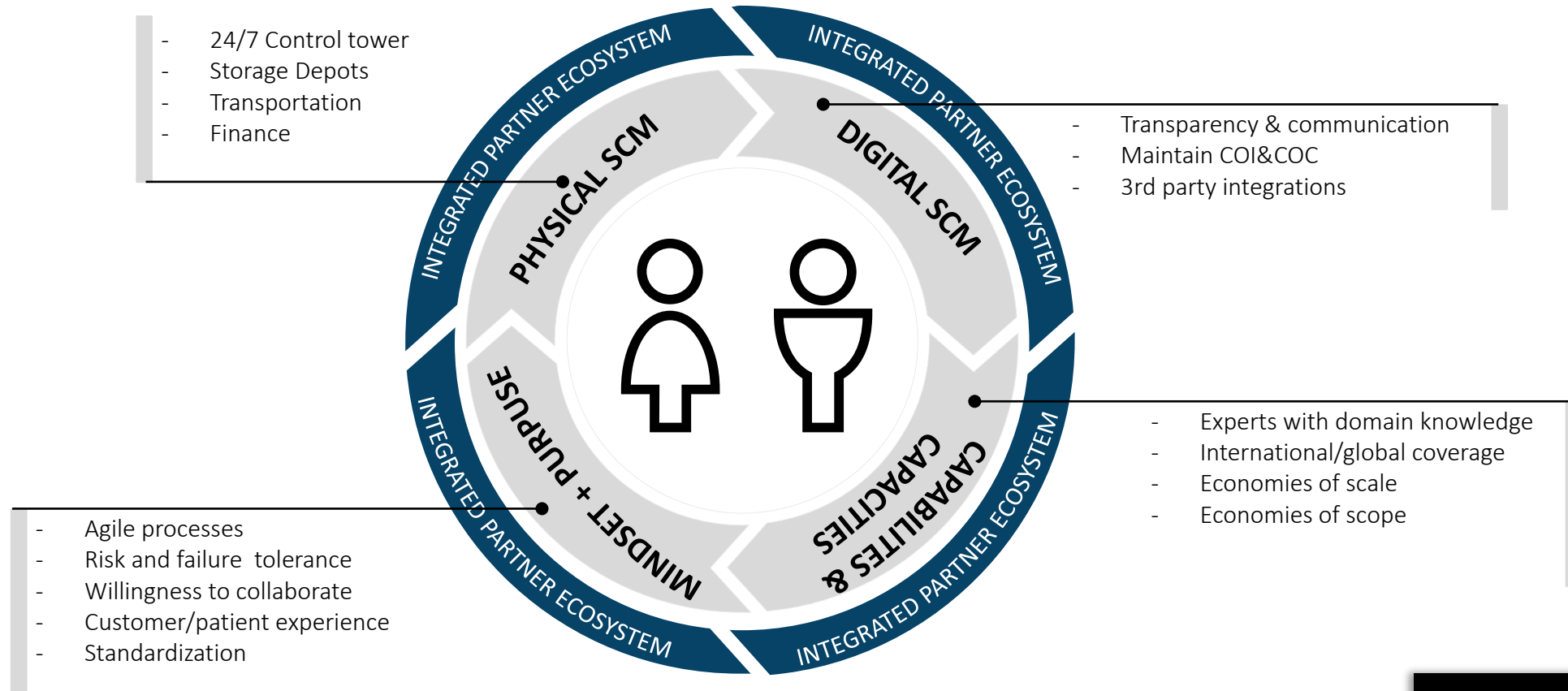
“A new enterprise system type”

Cell & Gene Therapy Orchestration Platform – A slight paradigm shift for system landscapes



Harmonized and digitally integrated supply chains

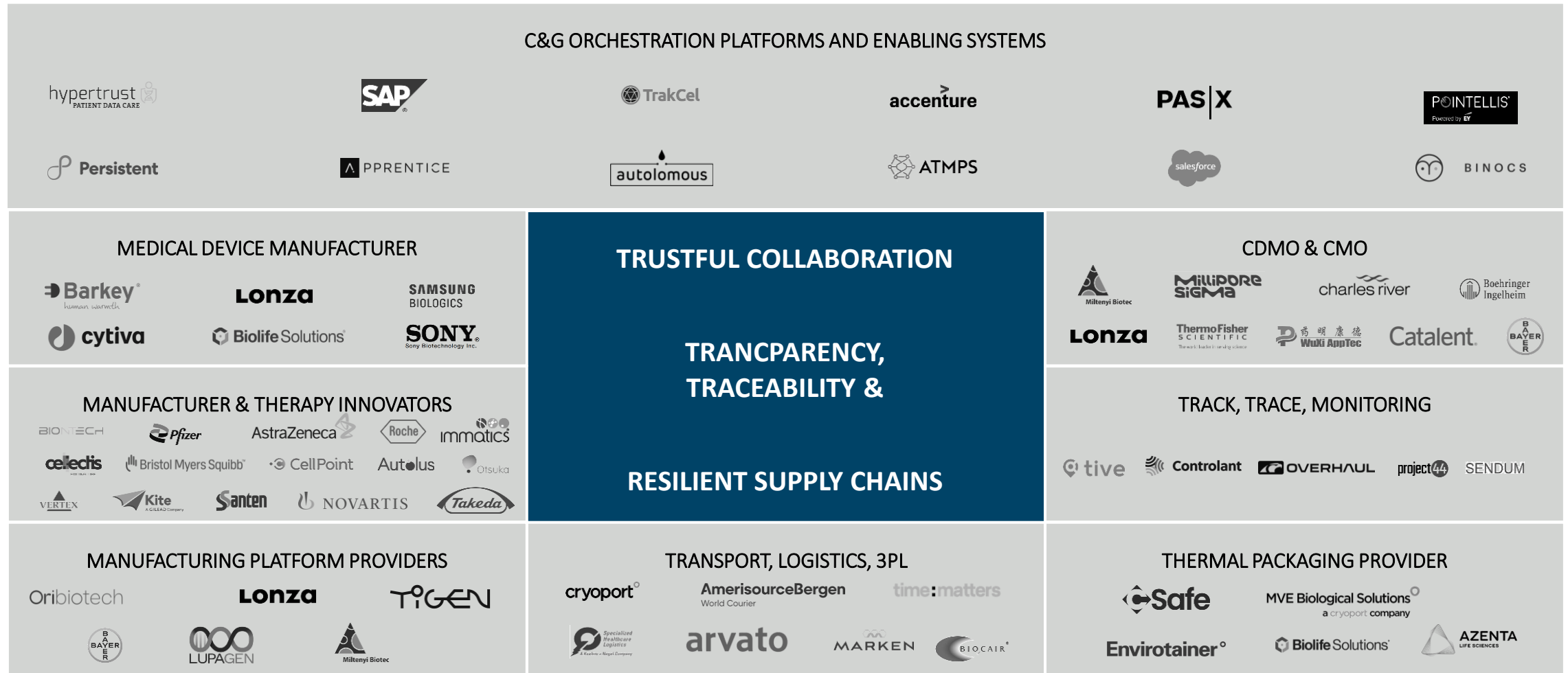
Flow optimization through collaboration



FOR YOUR PATIENTS.

Illustrative Ecosystem for C>*

It will be imperative for all health stakeholders to collaborate and build the right ecosystem to enable access and delivery of these treatments to the patients who will benefit from them.



* Not comprehensive

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