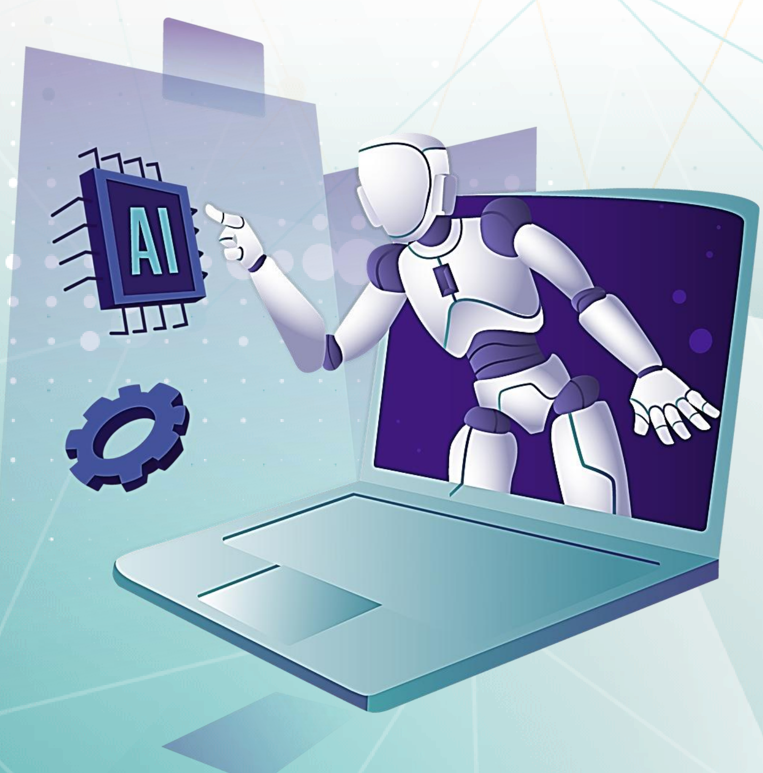
CFO PLAYBOOK

Financial Leadership for AI & Deep Tech Ventures



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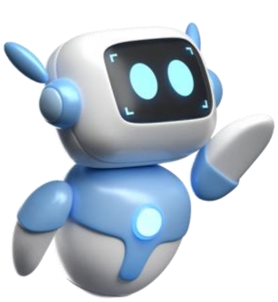


CFO INSIGHTS

WHO WE ARE

The market leader in CFO-as-a-Service in the CEE region with expertise in over 10 industries and finance professionals with more than 60+ years combined experience.

DEEP TECH FINANCE ESSENTIALS

Why Deep Tech Needs Deep Finance

Deep tech and AI are unlike any other startup sectors. In SaaS, a founder can build an MVP in three months, launch, start billing customers, and see recurring revenue within the first year. Deep tech doesn't work that way.

In AI, quantum computing, photonics, advanced materials, robotics, and space tech, the journey from idea to market is measured in months for new AI startups, and in years for deep tech startups. Technologies evolve through **Technology Readiness Levels (TRLs)**, where progress depends on scientific proof, prototype validation, regulatory clearance, and integration with industrial partners.

These timelines mean:

- **Long pre-revenue periods**
- **Capital-intensive R&D** with high burn rate
- **Unpredictable funding milestones** linked to technical rather than sales achievements

This is where "deep finance" comes in. Traditional CFO approaches, built for high-growth SaaS or consumer startups don't fit here. Deep finance means:

- Mapping financial plans directly to **TRLs**
- Layering **non-dilutive funding** (e.g., EIC, Horizon Europe, national grants) with equity from VCs and corporates
- Building **cash runway models** that account for grant disbursement delays and manufacturing Cape
- Valuing IP assets - patents, algorithms, datasets as strategic levers

<u>**Without a CFO who understands this landscape, founders risk:**</u>

- Giving up too much equity too early
- Mismanaging their business model, budgeting, strategy and pricing
- Failing to communicate milestones in a way that builds investor trust

The purpose of this playbook is to give deep tech and AI founders. Whether in the lab, at a prototype stage, or on the cusp of commercialization - a **clear, actionable financial roadmap**. It's also designed for investors, showing what best-practice financial stewardship looks like in this space.

THE UNIQUE FINANCIAL DNA OF AI & DEEP TECH VS. SAAS

The **biggest mistake** deep tech founders make is assuming they can apply SaaS fundraising and scaling models to their business. The DNA of deep tech finance is different in almost every dimension:

Dimension	SaaS	AI	Deep Tech
Time to Revenue	6–18 months	3–12 months (fast iteration, MVPs, pilots)	3–7 years (long R&D, regulatory hurdles, manufacturing readiness)
Funding Sources	Primarily VC	VC + strategic partnerships (cloud credits, corp. pilots)	Grants + VC + corporates + strategic R&D partnerships
Cost Structure	Dev + marketing	Cloud compute + talent (high burn on infra & payroll)	Capex-heavy (labs, equipment) + highly specialized R&D talent
KPIs	ARR, churn, LTV:CAC	Active users, model performance, data advantage, early ARR	TRL milestones, patents, PoC conversions, regulatory approvals
Valuation Drivers	Growth rate	Data defensibility, network effects, early traction	IP strength, technical moat, regulatory readiness, Capex

Key Differences:

1. Capital Mix: SaaS and AI founders often rely almost exclusively on VC. Deep tech requires a blended capital stack - EU and national grants, corporate co-development funds, and venture capital. Each source has different timelines, compliance requirements, and strategic value.

2. Revenue Delay: SaaS can monetize almost instantly after product launch. This is true for AI, but in deep tech, monetization comes after costly prototype development, testing, and often regulatory approvals.

3. IP-Driven Value: In SaaS, code can be rewritten and competitors can copy features quickly. In deep tech, patents, proprietary algorithms, or specialized manufacturing processes create defensible moats - if managed and protected correctly.

4. Non-Standard Metrics: Traditional SaaS metrics like MRR and churn are irrelevant before commercialization. Instead, investors in deep tech look for progress markers such as TRL advancement, IP portfolio growth, and successful PoCs.

For a CFO, this means replacing the "sales pipeline forecast" mentality with milestone-based financial modeling. You're not projecting how many customers will sign up next month; you're projecting when the next TRL milestone will unlock the next funding tranche.

THE UNIQUE FINANCIAL DNA OF AI & DEEP TECH VS. SAAS (cont.)

The Validation Sequence Challenge

Perhaps the most critical difference lies in the validation sequence:

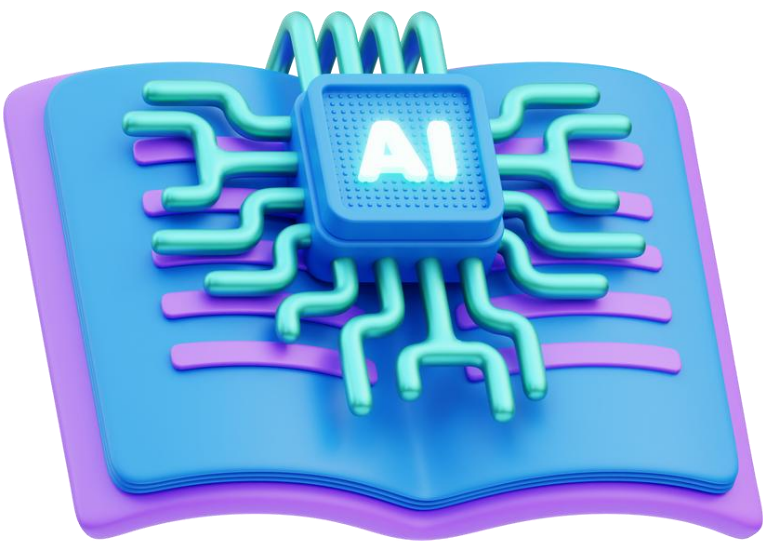
SaaS & AI Companies: Build → Test with Users → Iterate → Scale

- Market feedback drives product development
- Rapid iteration cycles (weeks/months)
- Revenue validates product-market fit
- Scaling primarily involves marketing and customer success

Deep Tech Companies: Research → Build → Validate Science → Test Market → Scale

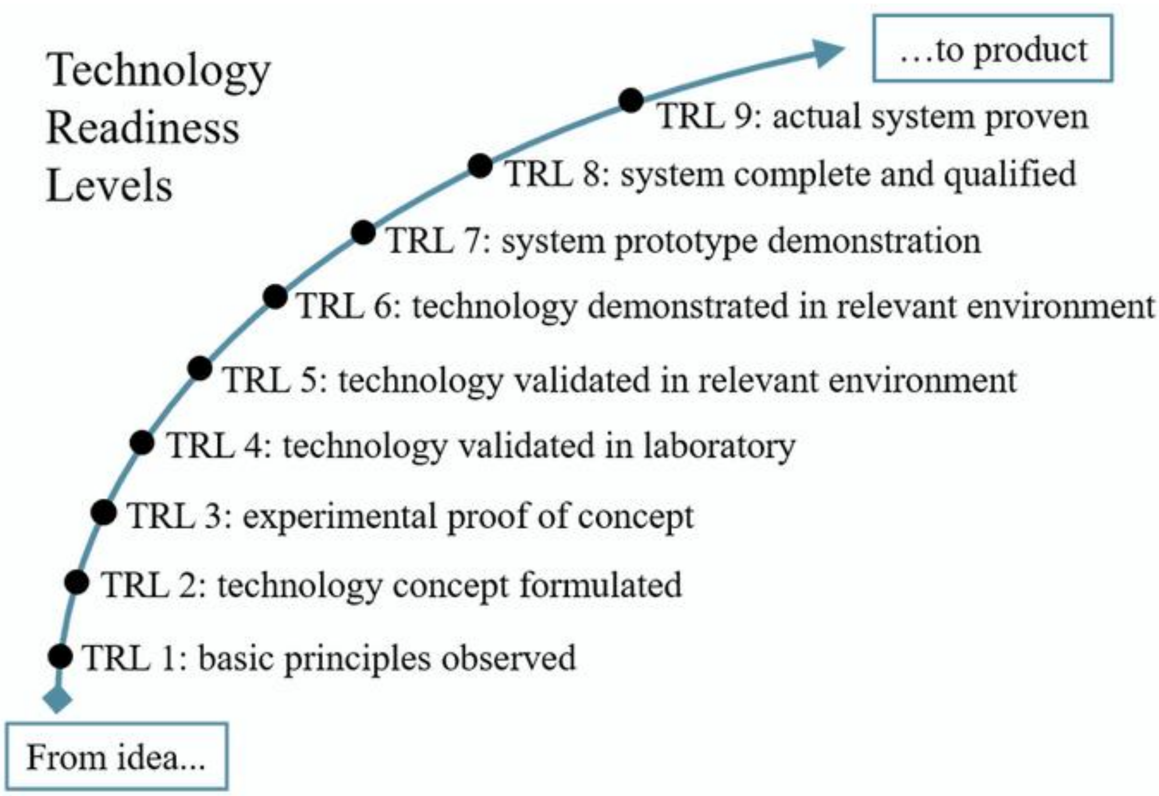
- Scientific feasibility must be proven before market testing
- Long iteration cycles (months/years)
- Technical milestones validate feasibility before revenue
- Scaling involves manufacturing, regulatory compliance, and complex partnerships

This sequence difference fundamentally changes financial planning, fundraising strategy, and risk management approaches.



MAPPING TRLS TO FINANCIAL STRATEGY

The Technology Readiness Level (TRL) framework, originally developed by NASA and now central to EU innovation funding, provides deep tech CFOs with a structured financial roadmap. **Each TRL stage corresponds to specific funding sources**, financial priorities, and strategic objectives.



TRL 1-3: Pre-seed / Pathfinder

- **Stage Goal:** Scientific concept validation and basic proof-of-principle.
- **Funding Sources:**
  - EIC Pathfinder (€2.5M single applicant / €3-4M consortia)
  - Horizon Europe thematic calls
  - National R&D grants
  - Small angel rounds (often €100-500k)
  - Early stage/Pre-Seed VC (up to €1M)
- **CFO Priorities:**
  - Secure non-dilutive funding to avoid early dilution.
  - Set up grant-compliant financial reporting systems from day one.
  - Map spend to R&D milestones, not calendar periods.
  - Educate founders on dilution mechanics early.
  - Cash flow management aligned with product roadmap

MAPPING TRLS TO FINANCIAL STRATEGY (cont.)

TRL 4-5: Seed/ Transition

- **Stage Goal:** Develop working prototypes and conduct PoCs with partners.
- **Funding Sources:**
  - EIC Transition (€2.5-5M)
  - Seed VC (€1-3M typical)
  - Corporate research partnerships
- **CFO Priorities:**
  - Blend grant and equity funding to cover both R&D and early commercial validation
  - Build milestone-based financial models for investor alignment
  - Build early business model and product pricing
  - Start formal IP valuation tracking - patents filed, pending, granted

TRL 6-8: Series A/ Accelerator

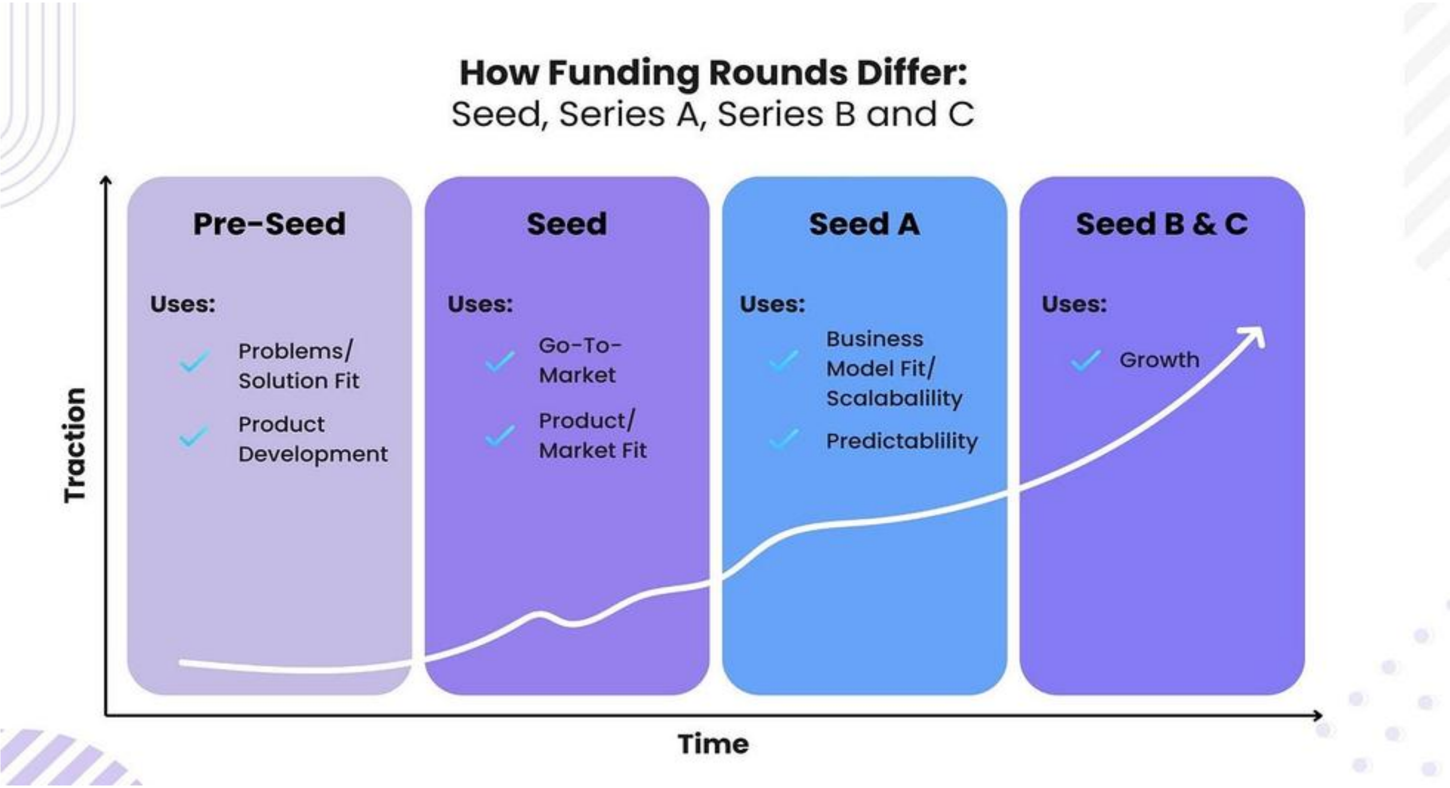
- **Stage Goal:** Demonstrate technology in operational environments, secure first commercial contracts.
- **Funding Sources:**
  - EIC Accelerator (up to €2.5M grant + €15M equity)
  - Series A VC (€5-20M)
  - Corporate strategic investment
- **CFO Priorities:**
  - Manage cap table strategically to avoid over-dilution through grant alignment
  - Plan Capex for manufacturing or scale-up facilities
  - Validate the business model and its commercial viability
  - Negotiate corporate terms carefully (avoid restrictive exclusivity clauses)

TRL 9: Commercialization

- **Stage Goal:** Full market entry, scaling revenue
- **Funding Sources:**
  - Growth equity
  - Project finance (for infrastructure-heavy ventures)
  - Revenue reinvestment
- **CFO Priorities:**
  - Shift focus to margin optimization
  - Structure debt or leasing for large Capex to avoid equity dilution
  - Prepare for IPO or M&A exit

FUNDING JOURNEYS BY STAGE

The financing path for AI and deep tech startups resembles a carefully choreographed symphony rather than the linear progression typical of SaaS companies. Success requires orchestrating multiple funding sources - grants, equity, debt, and strategic capital, all precisely timed to match TRL progression while optimizing for minimal dilution and maximum strategic value.



Source - https://rickkoleta.com/navigating-the-startup-funding-landscape-an-infographic-guide-8e4a1d8e0e53

From here, the financing path unfolds in distinct phases, each demanding a different CFO lens — balancing liquidity, compliance, and long-term strategic positioning.

Let’s explore how these phases interact to form a resilient Deep Tech capital stack.

FUNDING JOURNEYS BY STAGE (Cont.)

STAGE 1: PRE-SEED/ PATHFINDER

- **Duration:** 12 - 24 months
- **Funding Range:** €1.5 - 4M
- **Objective:** Transform scientific concept into validated research program with clear commercial potential
- **Success Metrics:** Patent filings, scientific publications, proof-of concept and business model

Phase 1: The Grant-First Advantage

At this stage, non-dilutive capital is often the most powerful lever. Programs such as EIC Pathfinder or national innovation funds (Germany - EXIST, ZIM, France - BPI, Netherlands - MIT) can provide several million euros in zero-dilution support, while also boosting VC credibility.

CFO Strategic Role

Integrate grants into a broader capital strategy - aligning milestones, ensuring compliance systems are in place, and sequencing equity funding once validation is achieved.

Execution Partnership

For execution, founders should partner with specialized grant consultants, while a CFO ensures clean financial reporting infrastructure, audit readiness, and proper cost allocation systems.

The **grant-first strategy is not** just **about capital efficiency - it's about buying time to achieve technical milestones** that dramatically improve equity terms. Founders who treat this phase as purely technical often find themselves with suboptimal cap tables that constrain future growth.

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FUNDING JOURNEYS BY STAGE (Cont.)

Phase 2: Angel Capital Bridge

While grant applications are in process - often requiring 6-12 months from submission to funding - typically need **interim capital** to **maintain momentum** and **retain key team members**. This is where **specialized angel investors become critical**: former deep tech founders who understand long development cycles, corporate executives with sector expertise, and technical angels who can provide both capital and strategic guidance. Convertible notes with deep tech–friendly terms (longer maturities, higher discounts vs. SaaS) are typical.

CFO Strategic Role

The CFO's role extends beyond structuring to investor preparation. This includes building the company's first rigorous business model, developing unit economics hypotheses based on comparable companies and market analysis, establishing potential pricing frameworks across different customer segments; Structure angel rounds to avoid over-dilution and preserve Series A headroom.

Phase 3: Grant-Equity Integration

The optimal capital stack at this stage combines grant validation with angel bridge financing to create extended runway while delaying significant dilution. A well-structured integration might look like this:

€2.5M	€1M	30
Grant Capital	**Angel Bridge**	**Runway**

CFO Strategic Role

Build financial controls from day one: cost-center tracking, timekeeping, procurement, IP protection, and milestone-based budgeting.

FUNDING JOURNEYS BY STAGE (Cont.)

STAGE 2: SEED/ TRANSITION

- **Duration:** 18 - 30 months
- **Funding Range:** €3 - 8M
- **Objective:** Build functional prototypes and validate technology performance in relevant environments
- **Success Metrics**: Functional prototype developed; technology performance validation; early customer engagement

The Blended Capital Sweet Spot

Seed is the first real inflection point where **grants + VC funding** converge. Grants (EIC Transition, national schemes) remain valuable, but the **primary focus is equity preparation** - attracting deep tech VCs who understand long timelines and technical risk.

CFO Strategic Role

Use grant validation to improve VC terms, sequencing fundraising so that equity investors enter on stronger valuations.

Targeting the Right Venture Capital Partners

Successful seed rounds require targeting funds that specialize in deep tech and understand sector-specific challenges. Leading European deep tech investors include Atomico, Earlybird, Vsquared Ventures, and Amadeus Capital. The optimal financing structure at this stage typically blends **€2-5M in equity capital with committed grant funding**, creating both capital efficiency and market credibility.

CFO Strategic Role

Design investor materials, build milestone-driven models, and run competitive fundraising processes with 3-5 VCs. Help founders test pricing hypotheses, customer willingness-to-pay, commercial pathways

FUNDING JOURNEYS BY STAGE (Cont.)

Corporate Partnerships: Strategic Value with Structural Caution

Seed stage often marks the emergence of corporate collaborations - R&D partnerships, pilot programs, or small strategic investments from industry players. These relationships provide invaluable market access, customer validation, and sector credibility. However, they must be managed with extreme care to avoid creating dependency or narrowing future exit options.

CFO Strategic Role

Ensure no single corporate partner dominates the cap table or strategic direction. Best practice is to attract several complementary strategics across verticals (manufacturing, distribution, sector-specific) to expand opportunities without narrowing exit paths.

Targeting the Right Venture Capital Partners

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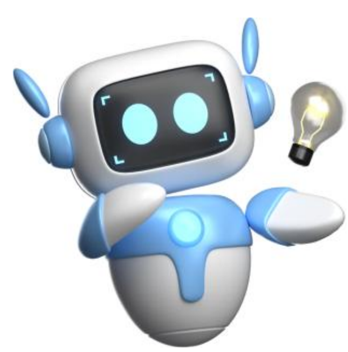
Advanced Structuring Considerations

Deep tech seed rounds frequently employ convertible notes/SAFEs with longer maturities, TRL-based conversion triggers, and grant integration clauses. Revenue-based financing may complement early pilots for non-dilutive growth capital.



FUNDING JOURNEYS BY STAGE (Cont.)

STAGE 3: SEED/ TRANSITION

- **Duration:** 24-36 months
- **Funding Range:** €8 - 25M
- **Objective:** Demonstrate technology in operational environments, secure first commercial contracts, and prepare for production scaling
- **Success Metrics:** Customer pilots, commercial agreements, production readiness

The EIC Accelerator Advantage

The EIC Accelerator can provide up to €17.5M in blended support (combining grant and equity component). While the capital itself is valuable, the program's real strategic worth lies in validation and visibility - EIC selection strengthens Series A positioning.

CFO Strategic Role

Time the fundraising sequence - announce EIC success just before Series A, **boosting valuation** and reducing diligence friction. Help founder **crystalize the business model** with validated unit economics based on early pilots and design the **right pricing model** for the company.

Series A VC Landscape

At Series A, deep tech companies gain access to larger **generalist funds** (Atomico, Index, Balderton, General Atlantic) and specialized **institutional investors** (Intel Capital, Siemens Next47, BMW i Ventures, Bosch Ventures).

CFO Strategic Role

Position the company with **traction evidence** (€500k+ pilots or recurring revenue), strong IP moats, and **scaling partnerships**, while orchestrating valuation uplifts through **competitive tension**

Corporate Strategy Integration

Corporate venture capital can accelerate scale, but over-reliance creates exit risk. The optimal approach is **CVC as a minority (20–40%)** alongside VCs.

CFO Strategic Role

Negotiate terms carefully: observer seats > voting rights, no exclusivity, and tag-along rights. Ensure strategics expand opportunity, not limit it.

FUNDING JOURNEYS BY STAGE (Cont.)

STAGE 4: GROWTH/ COMMERCIALIZATION

- **Duration:** 3 - 5 years
- **Funding Range:** €15 – 50M+
- **Objective:** Achieve market leadership, transition to profitability, and secure sustainable competitive advantages
- **Success Metrics**: Revenue growth, market share expansion, profitability path

Growth Capital Strategy (Series B–C and Beyond)

Series B and C rounds typically range between €15–50M, led by **growth equity investors, late-stage VCs, and sovereign or strategic funds**. Valuation multiples tend to reflect maturity - 8-5x revenue for profitable companies and 4–8x revenue for firms still scaling toward breakeven.

CFO Strategic Role

At this stage, **financial strategy is the business model** - have a crystal-clear clarity of margins, scaling costs and cash conversion. The CFO's mandate is to **optimize the capital stack**, blending:

- **Equity rounds** with minimal dilution
- **Alternative financing instruments** such as project finance (for infrastructure-heavy builds), venture debt, revenue-based financing, and equipment or working-capital facilities

Exit Pathways: IPO vs. Strategic Acquisition

- **IPO Readiness:** €50M+ annual revenue, audited financial controls, and independent governance structures
- **Strategic Acquisition**: most common among deep tech and AI ventures. Potential acquirers include: **industry incumbents, PE firms, or global tech leaders**, seeking strategic transformation. Multiple bidders maximize value.

CFO Strategic Role

Position exit strategy by **building clean financials, highlighting IP and strategic fit**, and running competitive processes

BLENDED CAPITAL: GRANTS + EQUITY

In deep tech, **grants are not optional - they're strategic weapons.**

EU and national R&D grants can fund up to 70-100% of eligible costs for early-stage projects. The trick isn't just winning them - **it's integrating them into your capital strategy** so they multiply the value of your equity raises.

Why Blended Capital Works:

- **Reduces dilution:** Grants fund high-risk R&D without touching your cap table.
- **De-risks equity rounds**: Achieving grant milestones improves valuation before you raise.
- **Improves investor appeal:** Shows ability to leverage multiple funding channels.
- **Extended Runway:** Grants provide patient capital for long R&D cycles

Typical Blended Stack Example (TRL 4-6):

Source	Amount	Dilution	Purpose
EIC Transition Grant	€2.5M	0%	R&D, prototype build
Seed VC Round	€2.5M	~15%	PoC deployment, team expansion

In this case, the grant doubles available capital while cutting dilution in half compared to an equity-only raise.

CFO Strategic Role

1. Build an **integrated budget** covering grant and equity spend - and track them separately for compliance.
2. Negotiate **investor term sheets** that account for expected grant inflows.
3. Use grant wins as **valuation inflection** points for equity raises.
4. Sequencing - positioning grant applications to complement, not delay equity raises.
5. Leveraging external consultants for the application process itself, while ensuring grant milestones align seamlessly with investor expectations.

CFO INSIGHTS

HOW TO DESIGN A FUNDING STACK WITH EIC, HORIZON AND VCS

Designing your funding stack is about **sequencing capital sources to match both TRL progress and cash needs.** Strategic timing of grants and equity rounds can preserve millions in founder ownership while accelerating technical milestones.

STEP 1

Start Non-Dilutive

- Launch with EIC Pathfinder (TRL 1 - 3), Horizon Europe thematic calls, and national innovation grants
- Achieve proof-of-principle without equity dilution while building technical credibility

STEP 2

Introduce Early Equity

- Seed VC and angel investors join once there's a prototype path
- Keep the round small enough to avoid over-dilution but large enough to cover match-funding requirements for grants

STEP 3

Blend Accelerator Grants with Series A

- Combine EIC Accelerator or national scale-up grants with Series A funding
- Aim to raise equity after grant approval for valuation uplift

STEP 4

Corporate Co-Investment

- Invite corporates for strategic fit - access to supply chains, distribution channels, or manufacturing capabilities
- Negotiate IP rights carefully to avoid exclusivity clauses that limit market reach

STEP 5

Debt and Project Finance

- For TRL 9+ commercialization phases, leverage debt instruments for equipment, manufacturing, or infrastructure investments to minimize equity dilution during scale-up

Pro CFO Tip:

Maintain a **Funding Stack Roadmap -** a 3 - 5 year view of your planned capital mix with triggers based on milestone achievement. This creates investor confidence that you're thinking beyond the next round.

HOW DILUTION WORKS ACROSS GRANT TRANCHES

For Deep Tech founders, capital rarely comes from a single source. The real challenge is designing a funding stack that balances non-dilutive (grants) and dilutive (equity) sources, while maintaining strategic flexibility. Most founders underestimate how dramatically grants can preserve equity.

Let's break down a simple case:

Scenario A: Equity-Only

- Raise €5M at a €15M pre-money valuation
- Post-money = €20M

=> Dilution = €5M / €20M = **25% founder dilution**

Scenario B: Grant + Equity

- Secure €2.5M grant first (0% dilution)
- Raise €2.5M equity at €15M pre-money
- Post-money = €17.5M

=> Dilution = €2.5M / €17.5M = **14% founder dilution**

Impact:

Founders **retain 11% more equity** simply by sequencing the grant before the equity round. Over multiple rounds, this compounds into millions in preserved ownership.

CFO's Dilution Checklist

- Model multiple funding order scenarios before committing
- Communicate dilution impact to founders and investors early
- Use grant wins to renegotiate investor terms where possible
- Track cumulative dilution across multiple funding rounds

FORECASTING FOR AI & DEEP TECH - FROM PRE-REVENUE TO BREAKEVEN

Forecasting in deep tech differs fundamentally from SaaS

While SaaS and AI startups model growth around **customer acquisition, churn, and ARR**, deep tech forecasting revolves around **milestones, grant inflows, and Capex cycles** — reflecting long development horizons and delayed commercialization.

Core Principles:

01

Milestone-Driven Revenue Recognition

- Revenue starts only after technical de-risking milestones

→ For instance, a robotics company might recognize its first pilot revenue only upon reaching **TRL 7 – system prototype in operational environment**.

02

Cash Runway as the Primary Metric

- Track not just *months of runway*, but *runway to next funding event* - whether that's a grant disbursement, an equity close, or a strategic partnership milestone.

03

Grant Disbursement Timing

- Incorporate expected 3 - 6 month delays between grant approval and first payment
- Maintain bridging capital to avoid gaps

04

CAPEX and OPEX Differentiation

- Separate lab buildouts, manufacturing tooling, and specialized equipment (CAPEX) from ongoing R&D salaries and consumables (OPEX)

Example Forecast Structure

Quarter	TRL Milestone	Funding Event	Capex Spend	Opex Spend	Revenue	Ending Cash
Q1 2025	TRL 5	EIC Transition Approval	€0.2M	€0.8M	€0	€1.5M
Q2 2025	TRL 6	Seed Round Close	€0.5M	€1.0M	€0.1M	€3.0M
Q3 2025	TRL 7	First Pilot Revenue	€0.3M	€1.1M	€0.5M	€3.8M

By anchoring forecasts to TRL and funding events, CFOs can give investors a **credible path to breakeven** without relying on speculative revenue growth curves.

BUILDING SCENARIOS FROM MILESTONES, NOT REVENUE

Why Standard Startup Forecasting Doesn't Work?

In SaaS and consumer tech, scenarios often flex around sales growth, churn, or CAC/LTV ratios. For Deep Tech, those metrics arrive too late to be useful. Most of the value inflection comes **before revenues exist**, as the company progresses from one TRL milestone to the next.

Link TRL to Cash Flows

Each milestone determines when spending on equipment, hiring, or pilot projects occurs, creating a direct connection between technical progress and capital needs

Multiple Pathways

The model flexes between base case (on-time milestone delivery), delay case (6 -12 month slippage), and upside case (accelerated adoption or partnerships)

Probability Weighting

Unlike static models, milestone-driven scenarios allow valuation ranges to reflect real technical and regulatory risk

Capital Strategy Integration

Shows how delays impact runway, dilution, and fundraising sequence - making risk visible to founders and investors

Why Investors Value This Approach?

Instead of abstract revenue curves, milestone-driven scenarios provide:

- A transparent map of **what €1M of funding actually achieves**
- Early-warning indicators for capital shortfalls or runway gaps
- A credible framework that investors recognize as **fit-for-purpose in Deep Tech**

This approach ensures founders are not penalized for lack of revenue but evaluated on **tangible technical and commercial progress**, translated into financial terms.

CAPEX, R&D BURN, AND HIRING CURVES

Deep tech financial planning must separate CAPEX and OPEX in far more detail than most startups.

CAPEX: Capital Expenditures

- Lab equipment, clean rooms and fabrication tools
- Specialized hardware for AI training (GPUs, quantum processors)
- Manufacturing tooling for pilot production

OPEX: Operational Expenditures

- R&D salaries (scientists, engineers)
- Consumables (lab chemicals, materials, supplies)
- Cloud compute for AI model training
- Ongoing operational costs and overhead

The "Step-Function" Nature of Burn

Unlike SaaS, where spend grows linearly with revenue, deep tech burn often jumps in spikes, tied to milestone achievement:

Initial Capex Spike

Large upfront Capex for a lab or manufacturing setup

Stable R&D Period

Stable period of high but predictable R&D burn

Production Scaling Spike

Another Capex spike for production scaling

Hiring Curve Strategy

- **Early stage**: Heavy on scientific/technical hires, minimal on sales/marketing.
- **Mid stage:** Add regulatory, QA, and pilot delivery teams.
- **Late stage:** Ramp GTM and CS teams once TRL 8-9 is reached

Cash Flow Management with Grant Dependencies

EU Grant Disbursement Patterns:

- Pre-financing: 30-50% of total grant upon signature
- Interim Payments: 30-40% upon milestone completion (6-12 month intervals)
- Final Payment: 20-30% upon project completion and final reporting

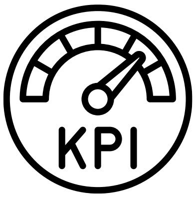
CFO Tip: Plan working capital for 6-12 month payment gaps.

KPIs

Traditional startup KPIs (ARR, churn, LTV:CAC) are irrelevant until commercialization. Deep tech needs **milestone-centric metrics** that show progress before revenue:

1. Technical KPIs:

- **TRL Progression:** % completion toward next TRL
- **Patent Portfolio Strength:** Filed, granted, pending
- **AI Model Performance:** Accuracy, latency, inference cost per query
- **System Reliability:** Uptime %, failure rates in test environments



2. Commercial Validation KPIs:

- **PoC Conversion Rate:** % of pilots converting to paid contracts.
- **Corporate Partner Engagement:** Number of active co-development agreements.

3. Funding KPIs:

- **Grant Yield Ratio:** Grants won ÷ grants applied for
- **Runway Months:** Remaining months until cash-out at current burn
- **Funding Event Readiness:** % of documentation and due diligence complete

4. Impact KPIs (increasingly important for ESG-conscious investors):

- Carbon reduction potential per unit
- Societal benefit metrics (e.g., in healthcare AI, patient outcomes improved)

CFO Dashboard Example:

KPI	Current	Target	Next Milestone
TRL Level	5	6	Q2 2025
Patents Filed	4	6	Before Series A
PoC Conversion	40%	60%	Post-pilot in Germany
Grant Yield Ratio	50%	65%	Next 2 submissions

❏ **CFO Tip:** Show investors a **KPI-to-valuation map** - link how each milestone potentially increases company valuation (e.g., TRL 7 → + €5M in valuation based on reduced technical risk).

PRICING MODELS FOR AI & DEEP TECH

Pricing strategy in AI and deep tech is not just about revenue — it's about **aligning value capture with value delivery.**

Choosing the right model impacts customer adoption, margins, and valuation multiples.

USAGE-BASED

What it is: Customer pays per unit of consumption (API calls, compute hours, data volume processed)

Best for: AI inference APIs, cloud compute services, data processing pipelines. Mainly used by AI startups.

✓ Pros: Revenue grows with adoption; predictable scaling

✗ **Cons:** Profitability eroded if cost per transaction is high

LICENSING

What it is: Annual or multi-year fee for access to technology (software or hardware/software bundle)

Best for: Robotics, photonics, and quantum simulation tools. Mainly used by deep tech companies

✓ Pros: Predictable recurring revenue; high switching costs

✗ **Cons:** Can slow adoption if upfront commitment is large

HYBRID (CAPEX + SAAS)

What it is: Customer purchases hardware upfront and pays ongoing software/service fees

Best for: IoT devices, industrial robotics, and advanced manufacturing equipment

✓ Pros: Strong cash inflow from hardware; recurring income from software

✗ **Cons:** Hardware sales can be lumpy; requires Capex financing solutions

OUTCOME-BASED

What it is: Customers pay only when the technology delivers a measurable result

Best for: AI-driven solutions in healthcare diagnostics, energy optimization, enterprise automation

✓ Pros: Aligns incentives between provider and customer; clear ROI, reducing upfront risk

✗ **Cons:** Irregular cash flow, complex to price and negotiate

PRICING MODELS FOR AI & DEEP TECH (Cont.)

Outcome-Based Pricing: The New AI Standard

Outcome-based pricing is rapidly becoming **the go-to model for AI companies**, especially those selling into enterprise and regulated markets. Instead of charging for access or usage, customers pay **only when the technology delivers a measurable result.**

> *Intercom, an AI-powered customer engagement platform, ties pricing for certain automation features to metrics like resolved conversations or time saved - aligning fees directly with customer value*

Why It Works in AI

- **Risk-sharing:** Customers feel confident paying for proven results, reducing barriers to adoption
- **Value alignment**: Pricing is tied to ROI, making the value proposition crystal clear.
- Faster enterprise sales cycles: Procurement teams can justify the spend more easily when outcomes are guaranteed
- **Upside potential:** If your technology consistently outperforms expectations, you can capture a larger share of the customer's value gain

AI Outcome Examples

- **Energy AI:** Customer pays a percentage of cost savings on energy bills
- **Predictive maintenance AI**: Payment per % reduction in downtime or failures
- **Healthcare AI:** Payment per improvement in diagnostic accuracy or patient outcome
- **Supply chain AI**: Fees tied to inventory optimization savings

CFO Considerations

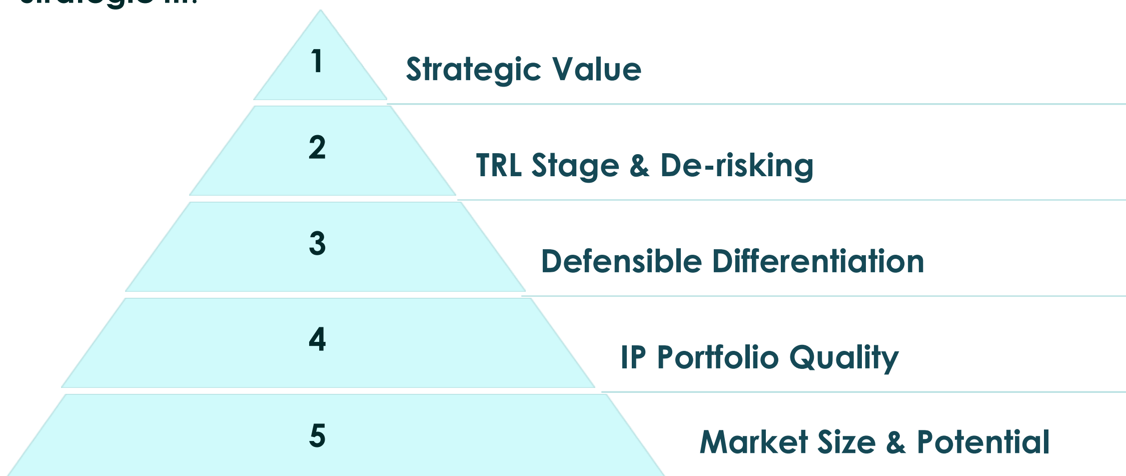
- Outcome metrics must be **objective, measurable**, and contractually **clear**
- Requires **robust tracking** and **reporting systems** - investors will want proof of delivery
- Cash flow may be more **variable in the short term**, so model conservative adoption and payout timelines
- When done well, outcome-based pricing can justify **premium margins** because it shifts the conversation from "cost" to "shared gains"

Investor Appeal
VCs see outcome-based pricing as **a signal of product maturity and customer confidence**. Often leads to higher Net Revenue Retention (NRR).

VALUATION MODELS FOR IP-RICH STARTUPS

Valuing an AI or deep tech company is as much art as science - and often far more complex than valuing a SaaS startup.

While **SaaS** investors apply **ARR multiples** (8-12× for growth stage), **deep tech** valuation is driven by **intellectual property** strength, **technical differentiation**, **TRL** progress, and **strategic fit**.



Key Valuation Drivers

IP Portfolio Quality

- Patents filed, granted, and pending - but also their **scope, jurisdiction, and enforceability**
- In AI, this can also include proprietary datasets, unique algorithms, or model architectures that are difficult to replicate

CFO's role: Track IP assets systematically and link to financial strategy, monitoring status, costs, and commercial applications.

Defensible Differentiation

- What prevents competitors from replicating your solution?
- For deep tech, this could be specialized manufacturing processes, years of domain-specific data, or regulatory certifications

CFO's role: *Connect technical uniqueness to pricing power and margin potential; demonstrate competitive advantage in investor messaging.*

TRL Progression & Risk Reduction

- Every TRL step achieved **materially reduces investment risk** - and should increase valuation
- Example: Moving from TRL 6 to TRL 8 could justify a 50–100% valuation jump because commercial readiness is in sight

CFO's role: *Model risk-adjusted returns at each TRL milestone to justify continued investment.*

Strategic Value to Acquirers

- Many deep tech exits are **strategic acquisitions** rather than IPOs
- Strategic buyers often pay based on cost to replicate + opportunity cost of not owning the technology

CFO's role: *Quantify strategic buyer benefits and replication costs to shape exit narratives and valuation strategy.*

VALUATION MODELS FOR IP-RICH STARTUPS

Common Valuation Approaches in Deep Tech & AI

Cost-Based Valuation

- Based on total R&D investment to date plus a markup for IP protection.
- Often used as a floor in negotiations ("replacement cost")

Market Comparables

- Compare to recent deals in similar tech domains and TRL stages
- Challenge: Very few direct comparable, and deal terms are often undisclosed

Risk-Adjusted NPV (rNPV)

- Forecast potential future cash flows from commercialization
- Discount heavily based on TRL stage, regulatory risk, and time to market

Venture Capital Method

- Estimate exit valuation at maturity, apply required return multiple (e.g., 10x for seed), and work backward to present valuation

Strategic Premium Valuation

- Used when the startup's tech unlocks significant value for a corporate buyer.
- Example: A battery tech company enabling 20% more range for EVs could be worth multiples more to a car OEM than to a financial investor

CFO Tips for Maximizing Valuation

→ Time equity raises right after **grant approvals, TRL jumps, or major IP filings**—each is a valuation uplift moment that strengthens your negotiating position.

→ Track **replacement cost** for your technology - it often justifies higher valuations when negotiating with corporates.

→ Build an **IP valuation narrative** in your investor deck, showing how each asset maps to competitive advantage.

→ For AI, document **model training investment** and dataset uniqueness - these are becoming major valuation factors.

COMMON MISTAKES & INVESTOR RED FLAGS

Deep tech and AI startups often operate at **the edge of what's technically and commercially possible -** but even the smartest teams fall into avoidable financial traps.

Here's what investors flag immediately and how CFOs can prevent these pitfalls.

MISTAKE 1

Overbuilding before market validation

What happens: Teams spend millions perfecting a prototype before confirming demand, regulatory acceptance, or manufacturability.

Why it's dangerous: Deep tech CAPEX is expensive, and the wrong build drains runway with no path to commercialization.

✓ **CFO Fix:** Stage CAPEX investments. Fund early prototypes with grants; reserve equity for builds with verified pathways.

MISTAKE 2

Under-Forecasting Cash Runway

What happens: Founders plan for 12 months without factoring in grant delays, regulatory reviews, or pilot.

Why it's dangerous: Cash flow crises often hit mid-milestone, when bridge funding is hardest to raise

✓ **CFO Fix:** Always model "time to next funding event" as the key runway metric, not just cash months.

MISTAKE 3

Overlooking Blended Capital Strategy

What happens: Founders chase only grants or only VC, missing the balance of non-dilutive and dilutive capital.

Why it's dangerous: Over-reliance on grants creates a "consulting trap," while over-reliance on VC leads to early dilution.

✓ **CFO Fix:** Design a funding stack mixing grants, equity, corporates, and debt aligned to TRL milestones.

MISTAKE 4

Treating AI Like SaaS

What happens: Founders project AI growth with SaaS-style metrics (ARR, churn, CAC) though economics hinge on compute, data, and retraining.

Why it's dangerous: Misaligned KPIs inflate valuations and burn capital without proving scalability.

✓ **CFO Fix:** Build AI-specific models linking revenue to compute, data scaling, and customer ROI instead of SaaS templates.

COMMON MISTAKES & INVESTOR RED FLAGS

MISTAKE 5

Weak IP Protection

What happens: Patents are filed late, in limited jurisdictions, or without defensive claims; proprietary datasets are left unprotected.

Why it's dangerous: Build an "investor-friendly" milestone dashboard that ties each technical achievement to business and valuation impact.

✓ **CFO Fix:** Integrate IP milestones into the financial plan, budget early for patent counsel, and treat IP as a line item with clear ROI, not just a legal afterthought.

MISTAKE 6

Poor Investor Communication

What happens: Founders report progress in purely technical terms (TRL jumps, R&D achievements) without translating them into valuation or risk reduction.

Why it's dangerous: Investors struggle to quantify progress, leading to lower valuations or slower follow-on funding.

✓ **CFO Fix:** Build an "investor-friendly" milestone dashboard that ties each technical achievement to business and valuation impact.

Red Flags for Investors

1. **TRL stagnation**: 12-18 months without measurable progress.
2. **Grant over-dependence**: 80–100% of funding from grants, no private capital mix.
3. **No IP roadmap**: No clear plan for how the IP portfolio expands over 24–36 months.
4. **One-customer dependency**: All pilots or PoCs with a single corporate partner.
5. **Opaque burn rate**: No clear breakdown of R&D vs. Capex vs. G&A.

CFO Takeaway

⟶ In deep tech, trust is built by showing you can **manage technical risk and capital efficiency in parallel.** The moment investors sense that one is lagging, funding momentum slows - sometimes fatally.

CASE STUDIES - APPLYING THE CFO PLAYBOOK IN PRACTICE

Deep tech fundraising isn't theoretical - it's a careful dance between technical milestones, capital availability, and investor confidence. The following three case studies illustrate how the principles in this playbook translate into real-world CFO decisions and outcomes.

CASE STUDY 1: QUANTUM COMPUTING STARTUP

Leveraging Grant-First, Equity-Second Strategy

The Challenge

Sector: Quantum sensing for precision navigation in defense and aerospace

Starting Point: TRL 3 - experimental proof-of-concept

Timeline: Highly complex technology with 3 - 5 years to commercialization with zero near-term revenue

Challenge: Needed significant lab buildout and specialized hires before attracting commercial partners

Funding Stack:

- €3M EIC Pathfinder Grant (0% dilution)
- €4M Seed VC Round at pre-money (20% dilution)

CFO Playbook in Action

Blended Capital Sequencing: Applied for EIC Pathfinder before equity raise, increasing valuation by ~40% through reduced technical risk

Dilution Control: Grant capital covered high-risk R&D activities, while equity funded team expansion and early PoCs with commercial partners

TRL-Milestone Forecasting: Budget directly tied to TRL progression milestones:

-> lab setup completion

-> first functional prototype delivery

-> environmental testing validation.

KPI Dashboard: Monthly investor updates tracked TRL completion percentage, patents filed, prototype performance benchmarks, and partnership development progress

Outcome

- Achieved TRL 6 six months ahead of schedule
- Investor confidence boosted, enabling a €12M Series A from a strategic defense corporate

Key Learnings

⟶ Always sequence grant wins before major equity rounds when possible.

⟶ Tie forecasts and updates to TRL progression, not speculative revenue.

⟶ Use grant-funded milestones as valuation inflection points.

CASE STUDIES - APPLYING THE CFO PLAYBOOK IN PRACTICE (Cont.)

CASE STUDY 2: AI & ROBOTICS SCALE-UP

Outcome-Based Pricing Boosts Series A

The Challenge

Sector: AI-driven robotics for industrial defect detection

Starting Point: TRL 7 - system prototype in operational environment

Challenge: Already had PoCs with 3 corporate partners but needed to scale to TRL 9 (full commercial deployment) within 18 months

Funding Stack:

- €8M Series A Equity
- €2.5M EIC Accelerator Grant
- €5M Corporate Co-Investment from industrial automation partner

CFO Playbook in Action

Funding Stack Design: Structured equity round and grant drawdown to overlap - grant funded final R&D push, equity funded commercial team buildout

Corporate Negotiation: Structured corporate co-investment without exclusivity to preserve multi-sector market potential

Pricing Innovation: Transitioned from pilot-based fixed fees to Outcome-Based Pricing - charging based on % reduction in manufacturing defects. This approach aligned customer incentives with technology performance

KPI Dashboard: Tracked defect reduction rates, PoC conversion %, and grant milestone completion - data used both for investor reporting and corporate partner satisfaction

Outcome

- Tripled commercial revenue in the first year post-launch.
- Series B pre-empted by strategic investors at ~8× forward revenue multiple

Key Learnings

⟶ Blended capital (grant + equity + corporate) accelerates commercialization with less dilution.

⟶ Outcome-based pricing can shorten enterprise sales cycles and boost valuation multiples.

⟶ Corporate investors can be powerful - but only if IP and market rights are carefully negotiated.

CASE STUDIES - APPLYING THE CFO PLAYBOOK IN PRACTICE (Cont.)

CASE STUDY 3: AI HEALTHCARE STARTUP

Surviving Regulatory Delays with Smart Capital Planning

The Challenge

Sector: AI-powered diagnostic imaging software

Starting Point: TRL 6 - prototype demonstrated in relevant environment

Timeline: Faced 9-month delay due to extended ethics and trial approval processes

Challenge: Required clinical validation (TRL 8) before commercial sales, meaning regulatory approval was a critical path item

Funding Stack:

- €5M Seed Equity
- €1.5M National Innovation Grant
- €2M Venture Debt Facility as bridge funding

CFO Playbook in Action

Scenario Planning from Milestones: Financial forecasts were milestone-driven with "baseline," "delay," and "worst-case" scenarios modeled from inception. This proactive approach ensured the team wasn't caught off-guard when regulatory timelines extended.

Bridge Capital Strategy: Secured venture debt early – before delays materialized – avoiding emergency down-round equity raise when delays occurred

Burn Rate Control: Adjusted hiring curve - paused non-essential hires and extended existing contracts instead of recruiting new staff

Investor Relations: Maintained investor confidence through transparent communication focused on non-revenue KPIs - clinical trial patient recruitment %, algorithm accuracy improvements, and regulatory dossier submission progress

Outcome

- Completed TRL 8 with 8 months cash runway remaining.
- Regulatory clearance led to immediate Series A interest at favorable terms

Key Learnings

⟶ Always model regulatory and technical delay scenarios in deep tech.

⟶ Venture debt can be a lifesaver when milestone slippage is outside your control.

⟶ Investors will remain patient if you demonstrate disciplined capital management and milestone progress.

META-LESSONS: CORE DEEP TECH CFO COMPETENCIES

These case studies reveal consistent patterns in successful deep tech financial management. The following principles emerge as **critical competencies for CFOs** navigating the unique challenges of technology-intensive, capital-intensive businesses with long commercialization timelines.

Capital Source Sequencing

Grant → equity → corporate → debt **sequencing is a core** deep tech CFO **skill**.
Each capital source has optimal **timing and purpose** - grants de-risk technology, equity funds scaling, corporates provide validation, and debt bridges between milestones.

Dilution Modeling

Dilution modeling is not optional - small % differences in early rounds compound massively over time.
Founders who optimize for 5-10% less dilution in seed rounds can retain 20-30% more equity by Series B.

Outcome-based pricing

Outcome-based pricing is emerging as a **valuation lever** in AI-heavy companies.
Links customer value realization to revenue, shortens sales cycles, and creates compelling investor narratives around product-market fit and ROI.

TRL-Linked KPIs

KPI dashboards tied to TRL milestones make investor communication clear and confidence-building.
Replace speculative revenue forecasts with concrete technical achievement metrics.

Delay Scenario Planning

Delay scenarios are realistic planning in deep tech, not pessimism. Regulatory hurdles, technical challenges, and market timing uncertainty require multiple scenario models and contingency capital strategies.

CFO INSIGHTS: STRATEGIC FINANCIAL LEADERSHIP FOR DEEP TECH

Deep tech and AI startups operate in one of the most complex financial environments in the world - long development cycles, uncertain commercialization timelines, high Capex, specialized talent requirements, and multi-layered capital stacks.

Most founders are focused (rightly) on solving the hardest technical problems in their field. But without equally strong financial architecture, even groundbreaking technologies can stall before reaching market.

What We Deliver for AI & Deep Tech Founders

01

Strategic Financial Modelling

- Replace speculative revenue forecasts with milestone-based models
- Integrate CAPEX, R&D burn, hiring curves, and regulatory timelines into actionable forecasts
- Run scenario planning (delays, cost overruns, market shifts) to keep investors confident

02

Optimized Capital Architecture

- Sequence grants, equity, and corporate partnerships to maximize runway
- Blend non-dilutive and dilutive capital efficiently without overexposing to strategics
- Design structures that scale from pre-seed through Series B/C

03

Fundraising & Investor Preparation

- Translate technical roadmaps into clear funding roadmaps investors understand
- Build investor-ready financial models, valuations, and data rooms
- Position startups for stronger terms and reduced dilution

04

Pricing & Monetization Strategy

- Advise on usage-based, licensing, hybrid, and outcome-based pricing models
- Build pricing strategies that tie directly to customer ROI and investor narratives

05

Financial Storytelling for Investors

- Build KPI dashboards that connect R&D milestones to commercial outcomes
- Support board reporting, investor updates, and funding negotiations with clarity and confidence

CFO INSIGHTS: STRATEGIC FINANCIAL LEADERSHIP FOR DEEP TECH (Cont.)

Why Fractional CFO is Perfect for Deep Tech

Hiring a full-time CFO too early is costly and often unnecessary - but running without financial leadership leaves startups vulnerable.

Strategic expertise without full-time overhead

Access senior-level financial strategy when R&D is the primary expense, without the annual cost of a full-time executive.

Investor Credibility

A well-structured financial plan signals operational maturity and risk control - critical factors in deep tech investor diligence.

Adaptability

Flexibility to scale involvement up or down as milestones are reached, funding rounds close, or operational complexity increases.

Our Proven Impact Across Deep Tech

20-40% **Dilution Reduction**

Through grant-first sequencing in early rounds

3-6mth **Faster Fundraising**

Cut timelines through better investor-ready documentation

↑35% **Grant Success Rate**

By aligning technical deliverables with capital strategy

Supported exits and Series B/C raises at **premium valuations** due to strong IP valuation narratives.

> "AI moves fast, deep tech moves deep — but both need a financial compass. Without it, even great technology never finds its market."
> ***- Angel Atanasov, CFO Insights***

> "Your technology might be revolutionary, but without strategic capital management, the world may never see it. In deep tech, financial discipline isn't a back-office function - it's survival."
> ***- Ivan Minev, CFO Insights***

How We Work with You

Step 1 - Financial Diagnostic
We assess your current financial structure, capital needs, and milestone roadmap.

Step 2 - Funding Architecture Design
We build your grant + equity + corporate + debt funding stack.

Step 3 - Milestone-Linked Forecasting
We translate your TRL and R&D roadmap into actionable financial models.

Step 4 - Execution & Investor Engagement
We run your financial operations, coordinate funding events, and prepare investor updates.

Step 5 - Continuous Optimization
We adjust for delays, market shifts, and strategic opportunities in real time.

Your Next Step

If you're building an AI or deep tech company, the right financial architecture is as important as your technical architecture. Every month lost to poor capital planning or investor uncertainty is a month your competitors can catch up.

We help you move from lab to market with confidence, capital efficiency, and investor trust.

Get in touch today to discuss your roadmap, funding needs, and how we can design your financial playbook.

Explore more: *insightscfo.com*
Contact us: *office@insightscfo.com*
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