

Automatic Lab – Business Plan

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Executive Summary

Automatic Lab automates lab work that is dangerous or monotonous for people. We build robots that move through the lab like people and operate the same instruments, and the software that controls a whole network of these robots and labs. Through VR teleoperation, one specialist can briefly take over individual robots and look after many labs without being on site.

Problem. Lab work with pathogens and chemicals is risky, and labs are hard to replicate: every new one needs space, equipment and skilled staff on site. Open labs also have a hygiene problem in both directions.

Solution. In the first step we provide robots, automation software and orchestration, not a lab of our own. Nano-Test provides the lab with space, equipment and staff. Nano-Test is our first customer and leases the first robot; its running operation, with the orders that go to Turkey today, is also the training environment for our robots. Once a robot masters a process reliably, we lease it with its software to other labs. Sealed container labs are a later phase.

Market. Lab automation is worth about \$6.6B worldwide and grows to \$8.6B by 2031; the underlying market for lab services is in the hundreds of billions. The market is consolidating strongly, which makes us an attractive acquisition target.

Team. Three founders combine software, VR and the lab: Miguel Marquez Gonzales and Martin Sokolowski (KI Maschine) and Mete Yünezer, Managing Director of Nano-Test GmbH in Düsseldorf. Miguel previously founded the VR startup VR Immersiv S.L. in Spain and brings experience with the technology our robots learn through. Nano-Test already has paying customers, mainly in cosmetics but also in RNA research; today it has all analyses carried out by partner labs in Turkey. Rolf Fellmann is CFO, responsible for finance and sales, and is also invested as a business angel. In addition, KI Maschine's AI tool Kontorist is already in daily use at Nano-Test.

Approach. Even before incorporation, KI Maschine is automating Nano-Test's office work through the NRW Go-to-Market voucher; there, Kontorist orchestrates AI agents in a real lab operation. Automatic Lab then places the first robot in Nano-Test's lab, starting with cosmetics analyses that go to Turkey today. We measure progress by the share of human time per sample and by cost and turnaround per sample.

Financing. Without a lab of our own, we need about €700,000 for the first 18 months (robots purchased, including a robotics lead, a PhD position, licence and development work by KI Maschine, and a buffer) instead of about €1M. We are raising €400,000 for 15% of the shares (pre-money about €2.27M). We are also applying to NRW.BANK for an NRW.SeedCon convertible loan of €200,000; together with Nano-Test's lease payments, about €642,000 is covered. The gate for the next round is the first paid lease contract with an external lab.

Vision

Automatic Lab takes dangerous lab work off people's hands: robots work in sealed labs, and a person steps in only when needed.

To do this we build two things that together form one product. Robots that move through the lab like people. And the software that controls a whole network of these robots and labs.

The Problem

Lab work can be dangerous. Anyone working with pathogens, chemicals or samples exposes themselves to risk.

At the same time, a lab is hard to replicate. A new lab needs space, equipment and skilled staff on site. And open labs have a hygiene problem in both directions: contaminants can get in, dangerous bacteria can get out.

The Solution

Automatic Lab combines three building blocks into one product.

Robots with human access. The robots move through the lab like people and can operate the same instruments. They work in ordinary, existing labs just as well as in our container labs. When needed, a person puts on a VR headset, briefly takes over a robot and jumps from there to the next. One specialist can look after many robots without standing in the lab.

How the robots learn. In day-to-day lab operation, staff control the robots through VR teleoperation. Every task performed this way is recorded and serves as a training example: the robot learns by demonstration. With each demonstration it takes over more steps on its own, and the person steps in only for exceptions. The share of human time per sample is therefore the metric we use to measure progress and show investors.

Sealed labs in a container. The labs are modular, built like Lego, and fit into a shipping container. Each container lab covers a clearly defined set of analyses that is extended step by step. The sealed design makes it easier to control contamination in both directions; the biosafety level and permitted analyses are set per application in a dedicated safety and quality concept. The container lab is a later phase; we start in the hybrid lab.

The control layer. One software manages the whole network: our own robots and labs as well as those we lease to customers. Its working title is also Automatic Lab.

Business Model

The business model is deliberately staged. Automatic Lab does not run a lab of its own; it supplies robots, automation software and orchestration. With the pre-seed round we finance the first robot at Nano-Test and the path to the first external customer, not everything at once.

Stage 1 – First robot at Nano-Test (from month 4). Nano-Test provides the lab with space, equipment and staff and takes in orders as it does today, mainly in cosmetics but also in RNA research. Automatic Lab provides the robot with software and orchestration and leases it to Nano-Test, which makes Nano-Test our first customer. The running operation is also the training environment: the robots learn on real samples and workflows, side by side with the staff. Because Mete Yünezer is co-founder of Automatic Lab and Managing Director of Nano-Test, we conclude the contract on arm's-length terms; the pilot price is deliberately below the later list price.

Stage 2 – Robot leasing to external labs (from the gate). Once a process at Nano-Test is reliably automated, we lease exactly this robot workflow to other labs. We do not sell robots; hardware and software run as a package with a monthly fee.

Unit economics (assumption). A unit costs about €60,000 in hardware plus €10,000 for integration. An external lab pays €5,000 per month including software; running costs for service, remote support and licence share are about €1,500 per month. The contribution of about €3,500 per month pays back the unit after about 20 months and brings about €168,000 over a 48-month term. With cheaper hardware (see hardware options), a unit of about €35,000 would pay back after about 10 months, a calculation that only holds once there are quotes for a fully operational unit. We test prices and costs in the Nano-Test pilot.

Rights to software and data. KI Maschine (Miguel Marquez Gonzales and Martin Sokolowski) is Automatic Lab's technology and development partner. The rights are split so that Automatic Lab builds its own investable technology asset and KI Maschine can keep using its platform in other industries:

TECHNOLOGY	RIGHTS
Kontorist and the generic orchestration platform	KI Maschine; Automatic Lab receives a long-term licence with source-code escrow, further development rights and a provision for a sale of the company
New lab agents, robot control, lab integrations	Automatic Lab
VR robotics modules and lab-related AI models	Automatic Lab
Nano-Test customer and analysis data	Nano-Test or Mete Yünezer
Recordings for robot training	contractually secured usage rights for Automatic Lab

This is governed by three contracts: a development agreement between Automatic Lab and KI Maschine with clear work packages, acceptance and an express grant of usage rights to the specific developments that are as exclusive and transferable as possible; a platform licence for the Kontorist core; and a data and training agreement with Nano-Test that sets which data may be used for what and for how long. Under German law, a commission alone does not automatically transfer all usage rights, so the contracts state this expressly. A lawyer will draft them before the funding round.

Conflicts of interest. Miguel and Martin hold shares in KI Maschine and Automatic Lab, Mete in Nano-Test and Automatic Lab. Therefore: contracts between Automatic Lab and KI Maschine are negotiated and signed for Automatic Lab by Mete; contracts between Automatic Lab and Nano-Test are negotiated and signed by Miguel and Martin. All services are billed at documented market rates; after the financing, such contracts also require the consent of the investors or an advisory board.

Every leased unit runs on this platform; this creates recurring revenue from hardware leasing and software at once, and the network grows with every new lab.

Stage 3 – Container labs (next round). Complete, sealed labs in container format, also leased and controlled through our platform. This stage is explicitly not part of the pre-seed financing.

Market and Scalability

For us, scaling means setting up another container. Because every lab is built from the same modules, the tenth lab is essentially a copy of the first. The vision is a network of such labs, for example near universities.

The market behind it is large and growing. Two figures frame it: lab automation as our technology field, and lab services as the market that automated labs ultimately serve.

MARKET	SIZE 2026	FORECAST	GROWTH
Lab robotics (worldwide)	approx. \$3.2B	\$4.6B by 2030	approx. 9.6% a year
Lab automation (worldwide)	approx. \$6.6B	\$8.6B by 2031	approx. 6.6% a year
Lab testing services (worldwide)	approx. \$118B	growing	approx. 5% a year
Clinical lab services (worldwide)	approx. \$230B	\$308B by 2033	approx. 4.3% a year

As a rough VC cascade: the total addressable market (TAM) is the worldwide market for lab services, in the hundreds of billions. The serviceable market (SAM) is lab automation at about \$6.6B, growing to \$8.6B by 2031. The target market (SOM) for the start is automatable labs in Germany and the DACH region.

Sources: Lab robotics – [The Business Research Company, "Laboratory Robotics Global Market Report"](#) (\$3.22B in 2026, \$4.64B by 2030, 9.6% a year). Lab automation – MarketsandMarkets, "Lab Automation Market" (approx. \$6.6B in 2026, \$8.6B by 2031, 6.6% a year). Lab testing services – The Business Research Company / Research and Markets, "Laboratory Testing Services Market" (approx. \$118B in 2026). Clinical lab services – Grand View Research, "Clinical Laboratory Services Market" (approx. \$230B in 2026, \$308B by 2033). Note: estimates for lab automation vary between about \$6B and \$9B depending on the source (Fortune Business Insights cites over \$10B); we give one headline figure and state the range openly. The hardware costs further below are not a market source but our own projection from individual equipment prices.

Competition

The market is crowded, including orchestration: several vendors already connect instruments, robots and lab data through software. Another orchestration platform alone is therefore no differentiator.

- **Instrument makers** such as Tecan, Hamilton and Opentrons sell pipetting robots and liquid-handling systems, mature for standardised liquid transfers.
- **Robot makers** such as ABB, KUKA and Universal Robots supply arms for diagnostics and research; in 2026 KUKA showed a KR AGILUS handling samples in an Anton Paar rheometer, explicitly also for the cosmetics industry.
- **Orchestration platforms** such as Biosero (Green Button Go, by its own account in over 1,000 labs) and Automata (LINQ, with a Python SDK and AI integration) connect instruments, robot arms and workflows. They are direct competitors to our software layer.
- **Full-service vendors from China** such as Zhentai combine mobile robots, arms, instrument control and orchestration of existing labs.
- **Cloud labs** such as Emerald Cloud Lab and Strateos: the customer books experiments online and a central lab runs them.

- **Research mega-labs** such as the Acceleration Consortium in Toronto or the A-Lab in Berkeley: funded projects, not companies with a leasing offer.

Our gap: existing labs for which a complete automation system does not pay off, but where a flexible, leased robot can take over individual recurring manual steps. Three features are meant to set us apart:

- **VR teaching:** lab staff demonstrate a task through teleoperation instead of every movement being programmed.
- **Human in the loop:** when unsure, the robot stops and calls a person; every takeover is traceable.
- **Vendor-independent:** we buy existing robots, including low-cost models, and connect them to the lab's instruments; we do not develop our own mechanics.

This is a hypothesis, not proof: whether VR teaching actually lowers set-up costs has to be measured in the Nano-Test pilot.

An honest point for investor conversations: according to 2026 market analyses, fully autonomous labs without people do not exist yet; the well-known headlines were all human-guided. That supports exactly our hybrid approach, but it will also come up as a critical question.

Team

Three founders bring software and the lab together; Rolf Fellmann leads finance and sales as CFO and has been on board as a business angel from the start.

PERSON	ROLE
Miguel Marquez Gonzales	Founder, software (KI Maschine) and VR; founder of VR Immersiv S.L. (Spain), produces VR videos
Martin Sokolowski	Founder, software (KI Maschine)
Mete Yünezer	Founder, lab (Managing Director of Nano-Test GmbH, Düsseldorf)
Rolf Fellmann	CFO and sales (finance, funding round, sales), business angel

Nano-Test already has paying customers, mainly in cosmetics but also in RNA research. Today all analyses go to partner labs in Turkey; exactly this volume is the first order book for the hybrid lab in Düsseldorf. With Kontorist, KI Maschine has already built an AI tool that is in daily use at Nano-Test.

Robotics is led by a permanently employed robotics lead. In addition, we fund a PhD position at an NRW university for research. We will raise both during the first wave of university visits.

Capital Requirement

Automatic Lab does not run a lab of its own; space, equipment and staff are provided by Nano-Test. Our capital requirement is therefore limited to robots, software and team. Rough calculation for the first 18 months after funding; guide values, not quotes:

ITEM (18 MONTHS)	APPROX. EUR
Robotics lead / engineer (1 FTE)	112,500
Founder part salaries (3 × €2,500/month)	135,000
PhD position at an NRW university (65–75%, incl. overhead)	82,500
2 cobot arms (purchase)	92,000
VR equipment, grippers, sensors	20,000
Integration	15,000
KI Maschine platform licence (placeholder €1,000/month)	18,000
Development work by KI Maschine (lab agents, robot integration, VR modules; placeholder)	60,000
Travel (first wave of universities, selected trade fairs)	30,000
Other (incorporation, legal, contracts, insurance)	40,000
Buffer (15%)	90,750
Total	approx. 696,000

For comparison: with a lab of our own, the requirement was about €1M. Lab leasing, analytics, materials and lab staff drop out because they sit with Nano-Test.

PRE-SEED ROUND	SHARE	PRE-MONEY	POST-MONEY	TICKETS
EUR 400,000	15%	~EUR 2.27M	~EUR 2.67M	5 × EUR 80,000 for 3% each

The timeline depends directly on the size of the round: the more capital, the faster we get from robot to leasing and to building containers.

Buy or lease

We plan to buy the robots. Leasing saves only about €60,000–70,000 in the first 18 months and costs 12–20% more over the term. Above all, we want to lease the robots on ourselves: with purchased hardware this needs no third-party consent, and the lease income stays entirely with us.

	BUY	LEASE 36 MONTHS	LEASE 48 MONTHS
Monthly rate	–	approx. €3,470	approx. €2,800
Capital at start	approx. €112,000	approx. €10,000	approx. €8,500
Hardware cost, first 18 months	€112,000	approx. €62,500	approx. €50,400
Hardware cost over the term	€112,000	approx. €125,000 (+12%)	approx. €134,000 (+20%)
Total requirement, 18 months	approx. €696,000	approx. €639,000	approx. €625,000
Leasing on to customers	freely possible	only with consent	only with consent
Lease income	entirely ours	minus our own rate	minus our own rate

Basis: leasable hardware of about €112,000 (2 cobot arms, VR equipment, grippers, sensors). Lease rate 3.1% (36 months) or 2.5% (48 months) of the purchase value per month. Integration (approx. €15,000) applies in all variants.

Lessors usually require a credit rating or track record from a young GmbH, another reason to buy the robots. Small equipment can be leased if needed.

Hardware options for the first robot

The €92,000 for two cobot arms in the capital requirement is a cautious upper limit, not a quote. Which option fits depends on what staff do with their hands for a typical cosmetics sample (opening vessels, dosing, weighing, loading centrifuges, operating instruments); we will clarify this first with Mete Yünezer.

Two arms, same scope compared (guide values, not quotes):

COST BLOCK	TWO COBOT ARMS, EUROPE (AS IN CAPITAL REQUIREMENT)	TWO ARMS, CHINA, E.G. UFACTORY OR FAIRINO
Robot arms	€92,000	€14,000–22,000
Grippers, cameras, sensors	€15,000	€8,000–15,000
VR control hardware	€5,000	€2,000–5,000
Integration and safety technology	€15,000	€10,000–20,000
Total	€127,000	€34,000–62,000

Not included in either column: shipping, import, VAT and validation in the lab. The split of the €20,000 for grippers, sensors and VR in the Europe column is our own estimate. The comparison only becomes reliable with quotes for the same lab cell from both regions.

Further options depending on the task: A – a single cobot arm (e.g. Universal Robots, ABB, KUKA) for loading instruments, transporting samples, opening and closing; cheaper if the step can be done with one arm. C – an existing pipetting robot plus orchestration (Opentrons Flex from approx. \$26,400) for workflows that consist mainly of liquid transfers.

The China scenario comes from price comparisons, not quotes. Before buying, we check ROS 2 support, SDK and external real-time control, safety documentation, CE conformity of the whole lab cell, support in Europe and operation without a cloud connection to the vendor, because customer data is processed in the lab. If a cheaper option is chosen, the funding gap shrinks by up to about €90,000.

Pre-seed capital requirement

Decision: pre-seed round of €400,000 for 15%. This corresponds to a pre-money valuation of about €2.27M (post-money about €2.67M).

Financing components for 18 months

COMPONENT	AMOUNT	STATUS
Pre-seed equity (5 tickets of €80,000)	€400,000	open for commitments
NRW.SeedCon (subordinated convertible loan from NRW.BANK)	€200,000	application after incorporation of the GmbH
Nano-Test lease income (12-month pilot at €3,500)	€42,000	term sheet in draft; extension not included
Total	€642,000	
Requirement including 15% buffer	€696,000	
Remaining gap	€54,000	

We do not treat the buffer as financing but as a reserve for the unexpected. The cash-flow plan therefore shows the gap openly: in the base scenario, about €20,000 remains in the bank after 18 months, calculated with twelve months of pilot, ongoing SeedCon interest and Nano-Test's payment terms. That leaves about €71,000 short of the full 15% reserve (about €90,750). In the conservative scenario, with robot start and SeedCon disbursement each three months later, about €19,500 remains; the cash balance is not negative in any month. The round therefore carries us to the first technical milestone, but without a sufficient reserve. We will close this gap before the round closes using one of these levers:

- cheaper hardware (China scenario or a single arm): saves up to about €90,000
- staggering development work by KI Maschine until after the first external customer
- an additional ticket, or NRW.SeedCap alongside an angel

Reconciliation: funding gap and reserve shortfall. The components table compares nominal funds with the budget; the cash-flow plan works with actual payments. Both figures fit together:

ITEM	AMOUNT
Budget 18 months without buffer	€605,000
15% buffer (target reserve)	€90,750
Requirement including buffer (rounded €696,000)	€695,750
less funds: equity, SeedCon, 12 months Nano-Test	-€642,000
Gap per components table (rounded €54,000)	€53,750
plus SeedCon interest, not in the budget (6% from month 2)	€17,000
Shortfall to target reserve per cash-flow plan	€70,750

With a low-cost lab cell, the full reserve is kept. A third scenario in the cash-flow plan uses the upper estimate for two arms from China, €62,000 including integration instead of €127,000. Then about €85,000 remains after 18 months, more than the target reserve of €81,000 due at that point; without SeedCon, money would only get tight in month 14 instead of month 11. The prices come from price comparisons; the scenario only becomes reliable with quotes for the same lab cell.

NRW.SeedCon. NRW.BANK grants €50,000 to €200,000 as a subordinated convertible loan to GmbHs and UGs in NRW that are at most 36 months old: 7-year term, 6% fixed interest, repayment at the end of the term; in a funding round NRW.BANK can convert the loan into shares ([NRW.BANK](#)). Whether

interest is paid on an ongoing basis or also at the end will be clarified in the application; the cash-flow plan cautiously assumes ongoing interest payments. A possible later conversion dilutes founders and investors further.

Option for a larger round: NRW.SeedCap. NRW.BANK takes an open equity stake of €100,000 to €500,000, usually in the same amount and on the same terms as an experienced business angel who is not yet invested ([NRW.BANK](#)). SeedCap therefore does not close part of the gap by itself but enlarges the round; valuation and shares would then have to be re-agreed. It requires at least one angel who commits a matching amount.

Round structure and closing

We offer five equal tickets: **€400,000 pre-seed, five investor tickets of €80,000 for 3% each.** At a post-money valuation of about €2.67M, 1% corresponds to about €26,667. Different ticket sizes are possible as long as the round adds up to €400,000 for 15%. There are no binding commitments yet.

INVESTOR	INVESTMENT	SHARE
Investor 1	€80,000	3%
Investor 2	€80,000	3%
Investor 3	€80,000	3%
Investor 4	€80,000	3%
Investor 5	€80,000	3%
Total	€400,000	15%

Closing conditions. The round only closes if (1) the full €400,000 is committed, from at most five investors (what counts is the amount, not the number of investors, so that one dropping out does not endanger the round) and (2) remaining financing of at least €200,000 is secured, primarily through NRW.SeedCon. If NRW.BANK approves less, the difference can be replaced by an equivalent, such as NRW.SeedCap alongside an angel, an additional ticket or a correspondingly smaller plan approved by the investors. If the round does not close, any amounts already paid in are returned under the contractually agreed unwinding.

Process with NRW.BANK. SeedCon and SeedCap require an existing GmbH, and NRW.BANK only decides once private capital is committed. We therefore proceed in five steps: (1) initial meeting at the NRW.BANK.Venture Center (venture-center@nrwbank.de) to confirm that NRW.BANK accepts this sequence and structure and on what terms it finances. (2) Incorporation of Automatic Lab GmbH. (3) Investors commit, conditional on the SeedCon approval. (4) SeedCon application with these commitments. (5) With the approval, the condition is met and payment follows. If this proves too slow, investors pay in two tranches, the second after the approval.

Legal process. Automatic Lab has not been incorporated yet. Whether investors come in at incorporation or through a subsequent capital increase, and how funds are held in escrow until closing, will be set by a lawyer before the first payment.

For investors this structure has an advantage: no one finances alone, and the round starts as a consortium with a fixed equity amount and secured remaining financing.

Financial plan (3 years, from funding)

Simplified cash view: hardware purchases are booked as expenses in the year bought, not spread by depreciation. Year 1 is the first twelve months after funding. Assumptions: Nano-Test leases one unit from month 4 at €3,500/month (pilot price, 12 months); from year 2 the plan assumes an extension still to be agreed in the pilot contract; external labs pay €5,000/month per unit including software; first external customer from month 18, an average of three external units in year 3; each new unit costs about €60,000 in hardware.

ITEM	YEAR 1	YEAR 2	YEAR 3
Nano-Test lease	€31,500	€42,000	€42,000
External lab leases	€0	€35,000	€180,000
Total income	€31,500	€77,000	€222,000
Personnel (founders, robotics lead, PhD; service from year 2, sales from year 3)	€220,000	€268,000	€356,000
Robot hardware (purchase) and integration	€127,000	€60,000	€180,000
KI Maschine platform licence	€12,000	€12,000	€18,000
Development work by KI Maschine	€40,000	€30,000	€30,000
Travel	€20,000	€35,000	€40,000
Other (legal, insurance, advisory)	€30,000	€35,000	€45,000
Total expenses	€449,000	€440,000	€669,000
Balance	-	-	-
	€417,500	€363,000	€447,000

Year 3 is more negative despite rising income because each new lease unit is bought upfront. That is the typical capital need of a leasing business: each unit pays back after about 20 months and brings about €168,000 in contribution over a 48-month term. From the next round on, we will therefore also finance new units through debt or refinancing, not only equity.

The cumulative balance after three years is about -€1.23M; of this, about €367,000 is robot hardware that sits on the books as an asset. Licence and development work by KI Maschine are shown separately: the licence is the ongoing price for the platform, while the development work creates IP owned by Automatic Lab. The pre-seed round carries us to the gate, the first external lease customer. The biggest lever after that is the number of leased units. The monthly 18-month cash-flow plan is available as a separate table.

Milestones

We do not ramp up everything at once but in sequence. Each phase proves something before the next one starts. Automatic Lab does not run a lab of its own: the first robot works in Nano-Test's running lab, which takes in orders as it does today, and Nano-Test leases it as the first customer.

1. **First robot in use at Nano-Test.** Set up in Nano-Test's lab, paid for under a lease contract, first work steps on real samples (cosmetics first).

2. **Autonomous robot in operation.** Developed and in use in the hybrid lab; the control software orchestrates, VR teleoperation works.
3. **Robot is leased to external labs.** First lease revenue: the gate for the next funding round.
4. **Container lab researched.** In parallel: feasibility, modules and costs clarified, not yet built.
5. **First container lab built.** In the next round: proof that the model can be copied (proof of scale).

Timeline (from funding)

All figures count from the close of the funding round (month 0), not from a fixed calendar date. That way the plan stays valid whenever the round closes.

Before the funding – NRW Go-to-Market voucher. The entry starts before Automatic Lab: Nano-Test applies for the voucher (deadline 31 October 2026, term 12 months) and KI Maschine implements it. AI agents take over the lab's office work, with Kontorist orchestrating them, plus agents for sample intake and test reports. This means the orchestration that will later also control the robots already runs in a real lab, and Nano-Test is a paying customer before the first robot arrives. The voucher funds only this software; the robots and Automatic Lab are not part of it.

PERIOD	WHAT HAPPENS
Month 0	Funding closed, GmbH incorporated
Months 1–3	Buy the first robot (2 cobot arms) and set it up in Nano-Test's lab; robotics lead on board; fill the PhD position at an NRW university; Nano-Test leases the unit from month 4
Months 4–9	Robot in day-to-day operation at Nano-Test; staff control it through VR teleoperation, training data is created; first workflow (cosmetics analysis) partly automated, share of human time per sample is measured
Months 10–15	Robot running reliably in the hybrid lab; first talks about leasing a robot to an external lab; container lab researched conceptually (feasibility, modules, costs)
Months 16–18	First lease revenue from an external lab, the gate for the next funding round; prepare the second wave (major trade fairs, China market research)
Next round	Build the first container lab (proof of scale) and expand the lab network

The periods are guide values and depend on the size of the round: more capital shortens the path from robot to leasing and to building containers.

Pre-Investment

In the pre-seed round we give up 15% of the shares for €400,000, split among up to five investors. We are also applying for NRW.SeedCon at NRW.BANK. We are seeking access to investors and NRW.BANK through three channels: the network at Life Science Hub Düsseldorf, Rolf Fellmann's network and Miguel's LinkedIn account with about 10,000 followers.

Investors receive a liquidation preference: in a sale, liquidation or insolvency, their investment is served first, before the founders receive anything. This lowers their risk and makes early-stage entry more attractive. The exact terms (e.g. 1x, participating or non-participating) will be set in the investment agreement.

This keeps a clear majority with the founding team, and we gain five supporters with networks instead of a single financier.

Roadmap

The first step is capital; the first proof is a real test lab in Düsseldorf.

1. Raise venture capital. The round is led by Mete, Miguel and Rolf Fellmann.
2. Survey the robot market. Discuss with RWTH Aachen which automation robots exist today and what we can build on. We start with existing robot models. First wave: the technical universities in North Rhine-Westphalia, reachable by train, such as RWTH Aachen, TU Dortmund with Fraunhofer IML, the University of Duisburg-Essen and the University of Siegen. This keeps the travel budget small at first. Second wave later: the major trade fairs and market research in China. Planned for the second wave: three people visit three trade fairs, two people visit the most important universities. Trade fairs could be SLAS Europe 2027 (Hamburg), automatica 2027 (Munich) and the World Robot Conference (Beijing).
3. Set up the first robot in Nano-Test's lab at Life Science Hub Düsseldorf. Nano-Test provides space, equipment and staff; our robots work there side by side with the lab staff.
4. Incorporate Automatic Lab.
5. Develop the business plan further from this paper.

Focus and Limits

The long-term target market is RNA and DNA research. To start, we focus on low-hanging fruit with quick revenue and lower hurdles, such as cosmetics.

Deliberately excluded:

- Food analysis: according to Mete it does not pay off, because the regulatory effort outweighs the return.
- Animal testing: under no circumstances, as a clear ethical line from the start.

Test Lab Equipment

The lab equipment is provided by Nano-Test; it is not part of our capital requirement. The following overview serves as orientation for Nano-Test and for later container labs.

We will decide with Mete which analyses the lab offers first. Analytics depends on this most.

AREA	ENTRY LEVEL	HIGH-END
Basic equipment: biosafety cabinet, fume hood, cooling, centrifuges, incubator, ultrapure water	quote pending	quote pending
Analytics, e.g. LC-MS/MS (triple quad)	used from \$15,000	new \$150,000–500,000
Pipetting robots	Opentrons OT-2 from \$15,950, Flex from \$24,950	Hamilton \$100,000 to \$2M
Robot arms	cobot \$25,000–75,000 per arm	humanoid robot over \$200,000
Software: LIMS and control	in-house development by KI Maschine	plus licences, e.g. Momentum or Cellario
Quality: accreditation DIN EN ISO/IEC 17025, possibly ISO 15189, S1/S2 classification	costs open	costs open

All prices are guide values in US dollars, not quotes. Sources: [Opentrons and Hamilton](#), [Hamilton price range](#), [mass spectrometers](#), [used LC-MS](#), [robot prices](#).

Lease instead of buy. We do not have to buy the large instruments. Specialised providers such as [Excedr](#) lease lab equipment over 3 to 5 years including maintenance and repair, also refurbished. Excedr is mainly active in the US; in Germany such contracts usually run through manufacturers, leasing companies or the house bank. Leasing preserves starting capital and does not dilute shares. Another option is sharing equipment with other companies at the Life Science Hub.

That labs prefer leasing to buying also supports our own business model: we lease robots on the same principle.

What the hardware costs at the start (3 workstations)

Rough estimate for initial planning, not quotes. Lease rate with a typical factor of 2.5 to 3.5% of the purchase price per month. Conversion at about EUR 0.92 per USD.

VARIANT	EQUIPMENT	PURCHASE PRICE	LEASE PER MONTH
High-end	new LC-MS/MS, Hamilton, humanoid robot per station	approx. \$3.16M (~€2.9M)	approx. \$79,000–111,000 (~€73,000–102,000)
Lean	used analytics, Opentrons, cobots, software by KI Maschine	approx. \$495,000 (~€455,000)	approx. \$12,000–17,000 (~€11,000–16,000)

The biggest levers downwards are used rather than new analytics, and cobots rather than humanoid robots. The actual start will probably lie between the two rows and depends on which analyses the lab offers first.

Funding Programmes

Funding from NRW and the EU can co-finance the test lab and lowers the risk for investors. Which programme fits depends on the phase.

PROGRAMME	PHASE	WHAT IT BRINGS	STATUS OCTOBER 2026
NRW Go-to-Market voucher (via Nano-Test)	Now	grant of up to €35,000	deadline 31 October 2026
DTTP (BMDS) with Nano-Test as pilot lab	Now	funding for the software core	outline deadline 11 October 2026
EFRE/JTF NRW 2021–2027	Ongoing	about €1.9B in EU funds, awarded through individual calls; robotics was a topic e.g. in Defence.Tech.NRW	watch for calls
NRW.BANK Seed Fonds Initiative	After incorporation	equity; names robotics, life sciences and automation	requires a corporation
VC funds backed by NRW.BANK, e.g. neoteq ventures	Seed	venture capital from pre-seed to Series A	fund 2 being set up
EIC Accelerator	After the test lab	grant of up to €2.5M plus €1–10M equity, from TRL 6	realistic 2027/2028

Start-up Transfer.NRW does not fit: the last round ended on 31 July 2026 and no new one is planned. NRW seed funding is a further argument for moving from a GbR to a GmbH.

Exit Perspective

Whoever owns a working network of automated labs with its control software is interesting to large players. Possible buyers are lab chains, lab instrument makers and robotics companies.

The market is consolidating strongly: five large vendors hold about 45 to 60% of worldwide lab automation, and they grow mainly through acquisitions. That makes a network of automated labs with its own control software an attractive acquisition target.

Three types of buyer come into question:

- **Lab chains** such as Eurofins, which grow through acquisition. Eurofins has acquired over 85 companies, in 2025 for example the testing provider Planton. For them we would be an automated, scalable lab network.
- **Makers of lab instruments and automation** such as Thermo Fisher, Tecan, Danaher or Hamilton. They buy software and robotics in a targeted way: Thermo Fisher bought Genedata (2024), Hamilton the robotics technology of UK Robotics (2025). Our control software and the hybrid approach would be strategic for them.
- **Robotics companies** that want to expand into lab automation and buy market access and application know-how through us.

A trade sale to one of these players is the most likely path; a later IPO is conceivable if the lab network becomes large enough. The timeframe depends on how fast the network grows.

Risks and Countermeasures

RISK	COUNTERMEASURE
Technology: fully autonomous robots in the lab are demanding; fully autonomous labs do not exist yet in 2026.	Hybrid approach from the start: robots work alongside staff, and a person steps in via VR. We start with existing robot models and bring robotics expertise into the team through a university partnership.
Financing: the first round does not reach break-even; a follow-on round is needed.	The first external lease revenue is set as a clear gate for the next round. Nano-Test already pays before that as the first lease customer. Remaining financing comes from NRW.SeedCon, a convertible loan repaid only after seven years, instead of a loan with ongoing repayment.
Market / customers: labs are conservative and adopt new technology slowly.	Entry via low-hanging fruit such as cosmetics with quick revenue, and via Mete's existing customer relationships at Nano-Test. Leasing lowers the entry barrier for customers.
Dependence on lessors: young GmbH without credit history.	We buy the robots and therefore do not depend on lessors; lab equipment sits with Nano-Test.
Team / key people: dependence on a few founders.	Three founders with complementary roles (software, VR, lab), CFO and sales with Rolf Fellmann on board, a permanent robotics lead plus a PhD position.
Regulation / accreditation: lab operation requires standards (ISO/IEC 17025, possibly 15189) and biosafety levels.	Mete's lab brings the experience; deliberate limits (no food analysis, no animal testing) keep the regulatory effort manageable.
Competition: large manufacturers and cloud labs.	Focus on existing labs for which complete systems do not pay off; differentiation through VR teaching, human in the loop and vendor-independent hardware, backed by the pilot's measurements. Market consolidation also makes us an acquisition target rather than just a competitor.