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GOLDRUSH OR TOOLSMITH:

MEDITECH GROUP'S STRATEGIC CHOICE IN DIGITAL HEALTHCARE GROWTH

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Abstract

This case study offers students an in-depth look into the strategic decision-making within Meditech, focusing on Digital Health Applications (DiGAs). It explores Meditech's initial preference for partnerships and its later consideration of ownership in the DiGA sector, in light of the evolving digital healthcare landscape. This shift in strategy is analyzed through the lens of core strategic concepts, highlighting Meditech's adaptive responses to technological advancements and regulatory changes. Students will examine the complexities and challenges of innovation in digital healthcare, gaining insights into Meditech's strategic balance between diversification, partnership, and ownership in a market characterized by continuous evolution and innovation.

Keywords: Strategy, Healthcare, Vertical Integration, Sustainability of Competitive Advantage

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CASE STUDY

Meditech Group

The journey of Meditech Group began when Dr. Julius Neubauer, Sebastian Müller and Max Scholl crossed paths at an industry event back in 2018. The three quickly bonded over the realization that the digital healthcare landscape was ripe for disruption and that there existed glaring gaps in patient care that needed urgent addressing. With complementary skill sets, they formed a dynamic trio. While Dr. Neubauer and Müller, with their vast experience, served as the more public faces of the company holding the title of CEO, Max, the original visionary behind the Meditech concept operated more behind the scenes. Yet, his role in driving innovation and continuous improvement at Meditech was indispensable.

Meditech's mission was clear yet audacious: to revolutionize healthcare accessibility by tearing down the conventional barriers that prevented people from seeking medical help. Unlike many telemedicine platforms that serve as mere digital extensions of traditional healthcare systems targeting those already willing to consult doctors, Meditech targets a different audience. They focus on individuals aware of their health issues but reluctant to consult healthcare professionals. This avoidance can be due to a variety of reasons, but Meditech focused on social stigmas and shame or discomfort associated with certain conditions. Their first platform, PrimeMan, was designed to tackle evident treatment gaps in men's health, in particular addressing erectile dysfunction. Approximately 8 million German men, representing 20% of those aged between 30 and 80, suffer from erectile dysfunction, but more than 80% do not seek medical consultation.

At the heart of Meditech's innovative approach is a business model designed to provide a seamless, end-to-end digital experience for the patient. The journey begins with a comprehensive medical anamnesis (MA). The anamnesis has been scrutinized and approved by

Meditech's own medical advisory board, consisting of Germany's best doctors, ensuring that it captures the essential information required for accurate diagnosis and treatment. Once the anamnesis is completed, the next step involves Meditech's in-house medical professionals. These doctors review the MA and symptoms to issue a digital prescription. Completing the digital loop is Meditech's very own online pharmacy. As soon as a prescription is issued, the pharmacy dispatches the necessary medication directly to the patient. This immediate response eliminates any additional waiting time and ensures that patients receive their medications promptly and discretely.

Part A: The 2020 decision

In late 2019, Germany witnessed a significant legislative transformation with the enactment of the Digital Healthcare Act. This act, encompassing the Digital Health Application Regulation, marked a pivotal moment in the integration of Digital Health Applications (in German: DiGA), commonly referred to as "Apps on prescription", into Germany's healthcare offerings. DiGAs are mobile applications providing medical care and support, offering functionalities like diagnostic assistance, symptom tracking, and therapeutic interventions. They also enable patients to connect with peers for support and offer direct access to healthcare professionals for urgent inquiries and therapy guidance. Historically, Germany's healthcare system had been slower to adopt digital innovations compared to other countries due to vast and complex regulations. The introduction of this legislation signaled a crucial step in modernizing the German healthcare system, enhancing healthcare quality and efficiency, and benefiting patients, insurers, and care providers alike. A McKinsey analysis estimated the value of digital health solutions in Germany to have an annual potential of approximately 42 billion euros, accounting for 12% of the nation's total healthcare expenditure. However, at the time of their analysis, only about 1.4 billion euros of this potential had been realized, with DiGAs accounting for less than 7%. With the onset of the COVID-19 pandemic, telemedicine consultations in Germany

increased significantly from fewer than 3.000 in 2019 to 2,7 million in 2020. For Max and his company, understanding this evolving landscape was vital to assess Meditech's potential role and value proposition within this sector. It required a thorough evaluation of the regulatory, operational, and financial aspects to determine if to integrate and leverage DiGAs into its value-based, innovative ecosystem.

Opportunities and challenges in Germany's digital healthcare landscape

The Digital Healthcare Act in Germany opened a significant market opportunity. Approximately 73 million Germans, representing 90% of the population and covered by statutory health insurance, became eligible to use DiGAs from October 2020, provided they have a proper diagnosis and prescription. The distinctive aspect that sets digital health applications apart from conventional pay-on-your-own-health apps is their extensive financial coverage, as all health insurers committed to reimburse the associated DiGA costs. Yet, this market potential came with considerable obligations. DiGAs, classified as medical devices, must demonstrate substantial additional value in patient care and enhance treatment quality proved in an extensive clinical study. The certification process, comprising 175 questions, is overseen by the German Federal Institute for Drugs and Medical Devices (Appendix 1). Upon successful evaluation of the clinical study, the product is enlisted in BfArM's DiGA directory, which in turn is the prerequisite for prescription and reimbursement.

However, if no positive care effects can be proven, inclusion in the DiGA directory will not be possible – with one exception: Recognizing the challenges, particularly for start-ups in conducting clinical studies prior to the application, the public health department established a pathway for preliminary approval, valid for one year, allowing market entry during a temporary listing phase. Failing to prove significant care effects of the DiGA within this period results in immediate delisting.

In terms of pricing the law provided that the manufacturer itself could set a justifiable price for DiGA which the insurers had to pay for during the first year. The final reimbursement amount is then set by BfArM after submitting the final study and is retroactively valid from the 12th month onwards. However, the specifics surrounding this final pricing scheme remained rather unclear. Further, lawmakers gave no statements concerning the maximum number of approvable DiGAs per medical indication (e.g. erectile dysfunction).

Strategic decisions and financial projections in a nascent market

The competitive landscape in early 2020 seemed to be an open field and the lack of established players provided a unique opportunity for early adopters to set the rules of the game - yet the roadmap was obscured by legislative infancy and potential hidden challenges in implementation in the nascent DiGA industry. Max collected information from industry experts and other digital health companies to construct a financial model, as not only the strategic suitability but also the economics of the endeavor were of crucial importance for Meditech. As anticipated, a significant investment was required for the medical study, which, given limited access to clinics and medical professionals, would result in external collaborations with data engineers, medical professors and other experts. Financial projections estimated 100.000€ for the clinical trial, assuming a streamlined execution. An additional 30.000€ was projected for a pilot study preceding the BfArM application. Alongside the clinical trial, the technical product development was a considerable undertaking. Although Meditech could develop it cheaper in-house, the costs were estimated at 50.000€, supplemented by an annual maintenance fee of 10.000€ (Appendix 2).

Although there was some degree of certainty while forecasting the costs, the revenue side posed even more challenges to Meditech due to its ambiguity. There were no reliable indicators for predicting sales volumes, nor were there any preceding examples to determine DiGA's likely pricing. On the sales side, the overall consumer reception to DiGAs was a

mystery. True, the insurance coverage removed the immediate financial burden from the end-users, but the pivotal question remained: Would they embrace the digital way of treatments?

The absence of established benchmarks, secure parameters, and experienced industry peers in the emerging DiGA sector put planning safety for Meditech at great risk and the financial forecasts under speculation. The opportunity was certainly appealing and start-ups, by their very nature, frequently take calculated risks as they strive towards disrupting the market with innovative products. Nonetheless, the undisclosed expenses, uncertain pricing and compensation systems, and the lack of a well-defined consumer reaction to DiGAs presented noteworthy hazards. Consequently, Meditech decided to refrain from developing its own DiGA - electing instead to take a position of attentive vigilance toward the developing market forces. Meditech shifted its focus to more promising opportunities, building new verticals in the example of PrimeMan and in line with its core business model.

Strategic shift: The partnership model (2020)

As the year 2020 came to a close and the first DiGAs began to scale, a new opportunity emerged. A partnership proposition came from Eudomia, a DiGA focusing on erectile dysfunction, seeking to leverage leads from Meditech's high-performing men's health platform PrimeMan. The question arose: How could Meditech leverage its distinctive capabilities beyond just selling leads to Eudomia. It was apparent that some processes within the DiGA sector were still clung to some antiquated processes. Patients were bound by the necessity to visit physical doctors to secure prescriptions and then undertake the cumbersome task of mailing them to insurance entities – a seemingly paradoxical approach for such a digitally-centric initiative. Max envisioned a comprehensive, online enactment of this entire process, mirroring one part of their principal business model to the DiGA domain: the digital issuing of prescriptions via a medical anamnesis. The proposal's economic framework was relatively straightforward. Still in its first year, Eudomia managed to carve out a 600€ fee per activated

DiGA over the prescribed three-month period. After negotiations, a deal was closed. 100€ per issued prescription, regardless of whether the patient redeemed the code or not for Meditech. The medical anamnesis, comprised of 16 questions was relatively straightforward for Meditech's doctors to review, thus costing only €17 per prescription and netting an 87€ profit per case. In the end, Meditech presented its PrimeMan customers a product bundle, consisting of the desired drug (e.g. Viagra) and the option to have the DiGA on top for 0€ - a great success (Appendix 3).

In a strategic twist, Meditech managed to turn a high-risk, high-effort, and questionably profitable opportunity into a venture marked by minimal effort, low risk, and a robust profit margin. Additionally, the partnership with Eudomia, offered them great insights into the ED-DiGA market, as Meditech could monitor Eudomia performance, noting the hurdles they navigated and the strategies they employed.

Part B: The evolving landscape and renewed ambitions (2023)

As of 2023, the landscape around Meditech had changed significantly. The previous three years were marked by both growth and challenges. The company, once concentrated on its primary vertical PrimeMan had ambitiously expanded. Three new platforms were launched: a solution addressing men's hair loss, a unisex initiative combating obesity and a holistic platform tailored for women's health. These expansions, while marking impressive milestones, also demanded high investments of time, resources, and capital. Further, the COVID-19 pandemic put immense pressure on businesses, Meditech being no exception and as interest rates soared, securing venture capital became a more complex and costly affair. As a response the company had to carry out redundancies in two stages, resulting in a reduction of 30% of the staff. Gone were the days of pursuing growth at any cost. The new way was to become profitable and grow sustainably.

Acquisition opportunity for Meditech to enter the DiGA market

However, a new opportunity became apparent, as Meditech was approached by Erectoly, a close-to-bankrupt “pay-on-your-own” health application, treating erectile dysfunction. Erectoly started as a B2C start-up with high hopes but backed the wrong horse by opting for the unregulated and not the DiGA market for its health app and stumbled over profitability early on. With only low prices enforceable in the unregulated market, costs were outrunning the profits. The company grappled with escalating marketing expenses, which were further amplified by the effects of the pandemic and regulatory changes from tech giants like Apple and Facebook. A negative market outlook dissuaded potential investors, leaving Erectoly cash-strapped and unable to pivot towards the DiGA path. A potential acquisition by Meditech offered the opportunity to turn Erectoly into a DiGA and capitalize on Meditech's vast market access, marketing power and the promise of rapid sales acceleration using its PrimeMan customer base. MedTech’s success with erectile dysfunction DiGA was evident, showcased by the success of Eudomia, which consistently recorded up to 500 orders every month, solely through the Meditech channel. After all, Meditech now had the option of entering the DiGA market.

Past development in the DiGA market

Over the first three years since the initial upcoming of the DiGA, Meditech had gained considerable experience. The fast-track process for preliminary approval by BfArM had become a well-established and accepted path for applications. The freedom granted to manufacturers to set prices in the first year proved advantageous, providing sufficient financial cushion and time to carry out extensive clinical trials. Although the alignment on prices, both in the first and second year still raised some questions, it was found that the better the clinical trial and thus the better the care effects for the patient, the higher the price was set by BfArM. Historical data of 1st and 2nd year DiGA prices made planning more manageable (Appendix 4,

Appendix 9). The competitive landscape had also undergone a noticeable shift. Until the beginning of 2023, 55 DiGAs had been successfully launched, with 22 currently in the provisional phase and 26 permanently listed in and 7 excluded from the official DiGA directory (Appendix 5, Appendix 9). The consumer behavior also changed evidently. As the concept of digital health applications gained traction, DiGAs were more and more embraced by patients. The practical advantages became widely recognized as valuable supplementary aids for treating different illnesses (Appendix 6).

Despite the positive reception, a new challenge emerged: the stance of insurance companies. The criticism revolved around the current structure of the fast-track evaluation and the pricing scheme. Prescribing DiGAs for a 12-month period, when their benefits weren't conclusively established for a price showing considerable imbalance compared to other service areas in the system, wasn't in the best interest of the insurers. Some began expressing reluctance to accept online-issued indication letters, arguing that prescriptions issued in this way do not take sufficient account of contraindications and that personal contact with a doctor must take place. It was evident that this was an easy way to reduce costs by insurers, although the legitimacy was highly questionable.

Meditech's strategy for advancing in the DiGA market

Converting Erectoly's current CE-certified medical device into a DiGA was theoretically feasible but demanded more resources than Meditech had available internally. Although the collaborative work with Eudomia had provided beneficial knowledge that could be utilized for this undertaking, partnering with experienced specialists was essential for accomplishing the detailed process of conducting a clinical study and submitting the application at BfArM. Martin von der Heyden, a neurologist and former BCG consultant, joined the company as Medical Director in late 2021. With deep roots in Germany's telemedicine and urology scene and connections to numerous universities and professors, Martin had previously

conducted other clinical research for Meditech, all of them in the fields of men's health. Through Martins expertise and network, a clinical study was feasible and estimated at 50.000€. To navigate the complex BfArM application process, Max sought assistance from a trusted friend. MedApp Innovations, his friend's company, had developed numerous services focused on the DiGA development process. They were well-positioned to cover the BfArM application, simplifying the intricacies of the process for Meditech.

The subsequent success of Eudomia, underscored by the attraction of numerous investors and 15€ million in total funding, was a testament to the viability and effectiveness of digital health applications addressing erectile dysfunction. Recent technological progress has brought artificial intelligence to a level of commercial viability, revealing novel opportunities for DiGAs to potentially revolutionize treatment methods and improve patient recovery. Eudomia had engineered their product without the assistance of these modern technologies and BfArM legislation prohibited changes to approved DiGAs without supplementary clinical trials. Moreover, recent years saw an uptick in the adoption of wearables, enhancing the precision of patient data monitoring. Embracing these new technologies gave Erectoly a distinct advantage, potentially positioning it significantly ahead of Eudomia.

To better understand the implications and impact of the acquisition opportunity, Max started with the due diligence and first negotiations with both Erectoly for the tech product and MedApp Innovations for the BfArM application and a rough framework was set: instead of paying high amounts upfront to Erectoly for the App and tech team and to MedApp Innovations for carrying the BfArM application process, they decided on revenue shares. Erectoly would be bought for a symbolic price of 1€ and both MedApp Innovations and the shareholder of Erectoly were involved on a percentage basis until a certain limit and for a certain time on the revenues. The only investment Meditech had to carry would be the clinical study, the transaction costs

(legal and investment banking fees) for the acquisition, and compensation payments for possible layoffs (Appendix 7).

Partnerships as a lucrative side business

Besides growing substantially its core business over the previous years, Meditech had also scaled the partnering business with other DiGAs as it did with Eudomia. Although the partnerships differentiated with engagement, as not all of them had direct linkage with Meditech's platforms, the base was always the issuing of e-prescriptions through a medical anamnesis. Where possible, integration went deeper and the partnered DiGA was offered as an upsell product for Meditech's patients. Additionally, the company expanded its services by introducing a "Concierge Service" around the DiGA process. Max recognized that, particularly in the first year, the DiGA manufacturer had to allocate all their resources towards conducting the clinical study. As a result, essential resources for ensuring customer success, patient and insurance communication, and marketing and sales efforts were frequently unavailable. With Meditech, DiGA manufacturers could outsource these tasks to a partner with extensive experience in these domains. The suite of services provided by Meditech was rapidly embraced by its partners, mainly because of its distinctiveness. Although other online medical services like Teleclinic or Doctor.de provided online prescriptions, they all required video consultations. In contrast, Meditech customers weren't burdened with signing up or downloading an app, and the entire process was asynchronous, removing the need for real-time interactions between patients and doctors. Further amplifying its edge, Meditech had an entire business intelligence team dedicated to scrutinizing and refining every stage of the user journey on the website and within the medical anamnesis. This approach translated to impressive conversions and although smaller in terms of patient numbers compared to its competitors and with prices on the upper end, Meditech's singular emphasis on DiGA established closer, more individualized collaborations, creating a profound sense of trust and care among its partners. By 2023

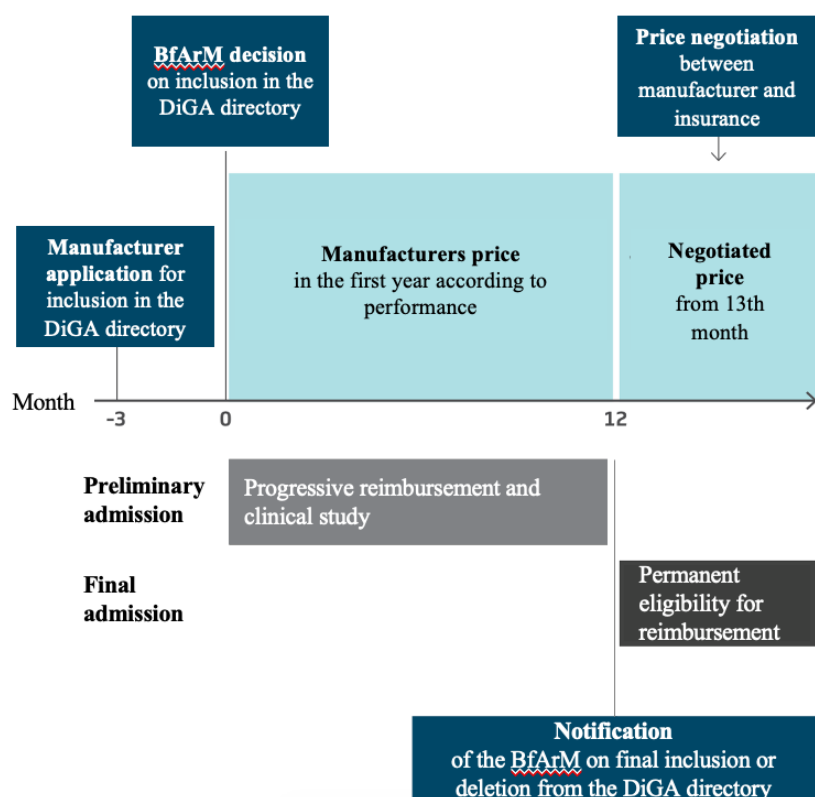
Meditech had forged five significant partnerships, a 6th one in sight, and successfully issued more than 20,000 prescriptions, showcasing its vast reach in the market. This success was further underlined by an excellent profit margin of over 75%, underlining the economic viability and success of the partnerships (Appendix 8)

The Road Ahead

The strategic decision between partnering with existing DiGA providers or acquiring Erectoly, held profound implications for Meditech's future performance. It's unique capabilities, market position, and strategic goals were key determinants in this crucial decision. Would having its own DiGA elevate Meditech's long-term performance and incrementally enhancing the company's value, or would the hidden costs and competitive forces erode the anticipated benefits?

APPENDICES TO THE CASE STUDY

Appendix 1: DiGA application process



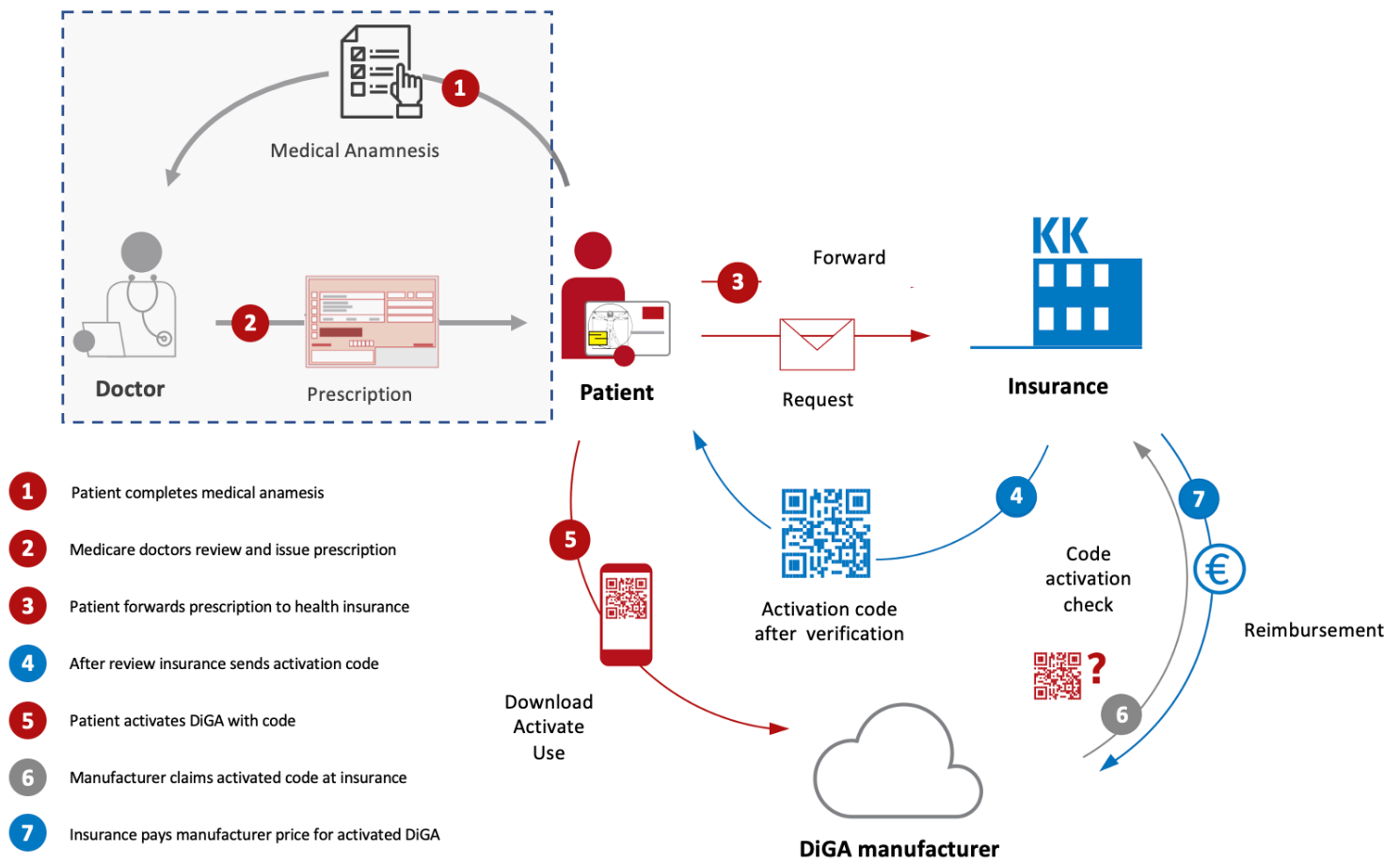
Source: Own illustration

Appendix 2: Simplified financial calculations for own DiGA in 2020

	Best-Case	Medium-Case	Worst-Case	Best-Case	Medium-Case	Worst-Case
Financial Calculations						
Price	€ 250	€ 250	€ 250	€ 100	€ 100	€ 100
Volumina	€ 3.000	€ 1.000	€ 500	€ 9.000	€ 3.000	€ 1.000
P&L						
Revenue	€ 750.000	€ 250.000	€ 125.000	€ 900.000	€ 300.000	€ 100.000
Operating Cost p.m.						
Fix Cost	€ 369.090	€ 369.090	€ 369.090	€ 160.000	€ 160.000	€ 160.000
Admission fee	€ 13.500	€ 13.500	€ 13.500			
Pilot Study	€ 30.000	€ 30.000	€ 30.000			
Medical Study	€ 100.590	€ 100.590	€ 100.590			
CE Conformity	€ 15.000	€ 15.000	€ 15.000			
Product development	€ 50.000	€ 50.000	€ 50.000			
Salaries	€ 150.000	€ 150.000	€ 150.000	€ 150.000	€ 150.000	€ 150.000
Product maintenance	€ 10.000	€ 10.000	€ 10.000	€ 10.000	€ 10.000	€ 10.000
Variable Cost	€ 87.000	€ 29.000	€ 14.500	€ 261.000	€ 87.000	€ 29.000
Help Desk	€ 9.000	€ 3.000	€ 1.500	€ 27.000	€ 9.000	€ 3.000
Acquisition cost	€ 12.000	€ 4.000	€ 2.000	€ 36.000	€ 12.000	€ 4.000
App store comission	€ 66.000	€ 22.000	€ 11.000	€ 198.000	€ 66.000	€ 22.000
Total cost	€ 456.090	€ 398.090	€ 383.590	€ 421.000	€ 247.000	€ 189.000
EBIT	€ 293.910	-€ 148.090	-€ 258.590	€ 479.000	€ 53.000	-€ 89.000
EBIT Margin	39%	-59%	-207%	53%	18%	-89%

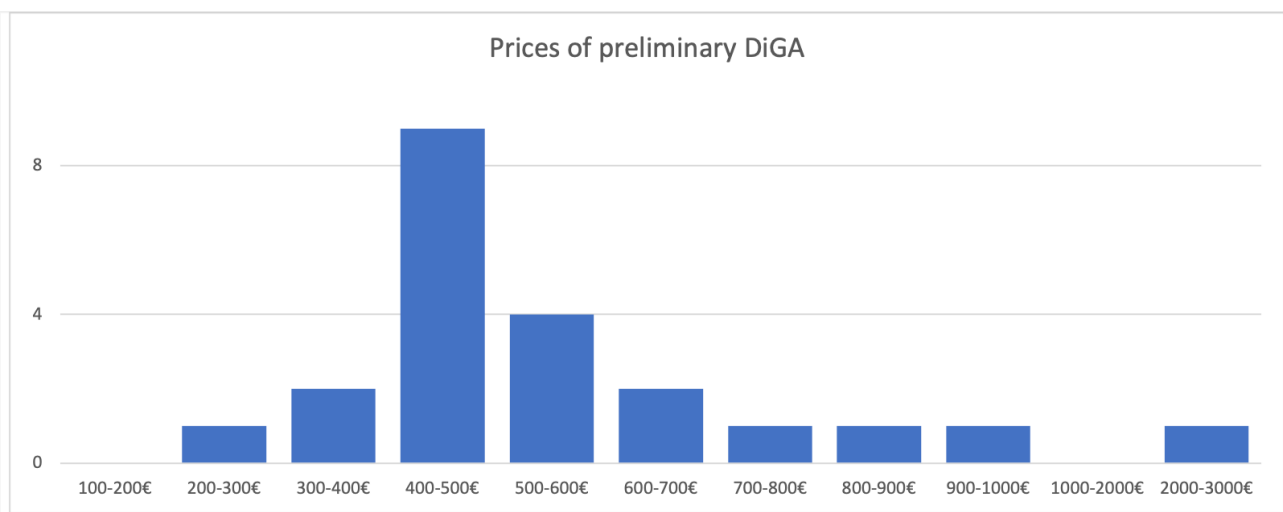
Source: Meditech's internal documents

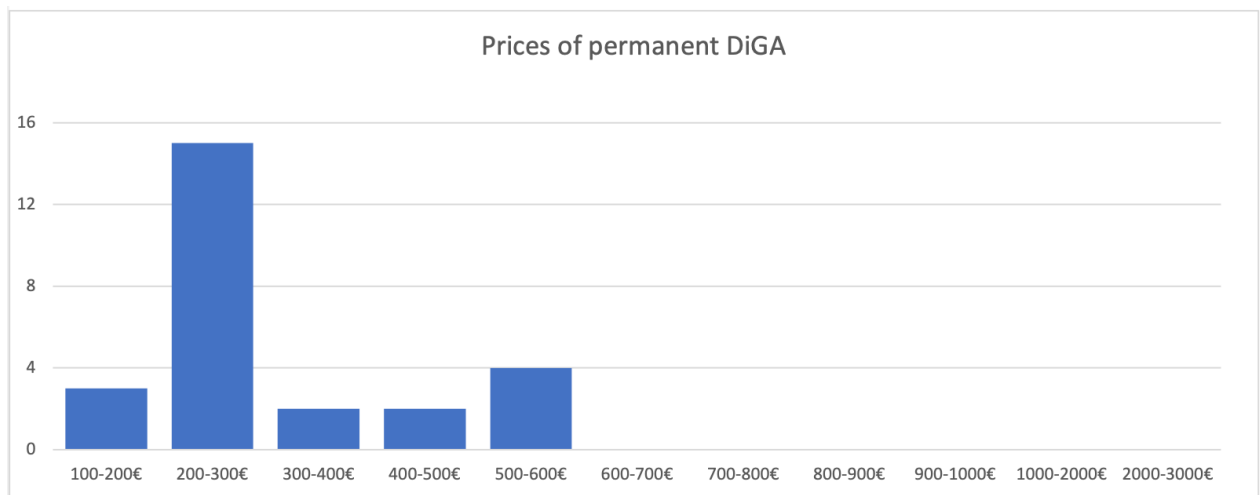
Appendix 3: Overview of MediTech's partnering business with all stakeholders



Source: Own illustration

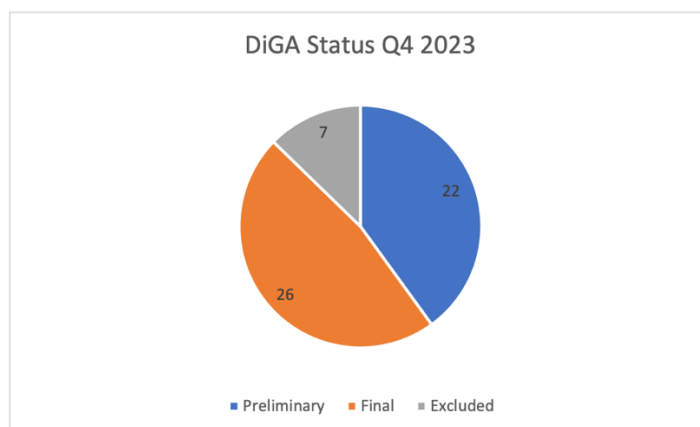
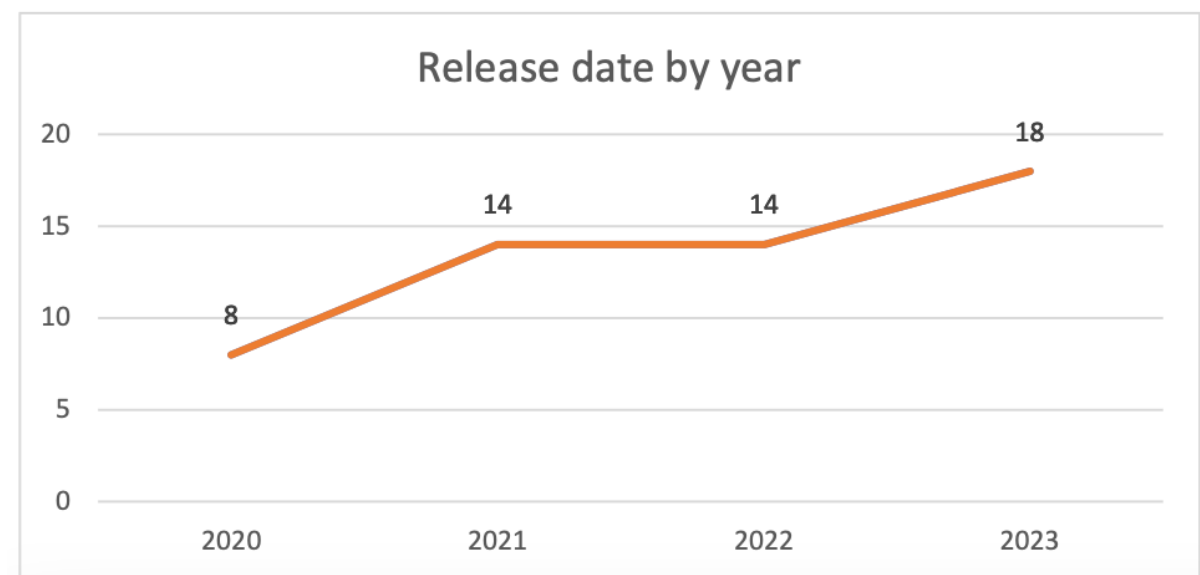
Appendix 4: Prices of preliminary and permanent DiGAs in 2023





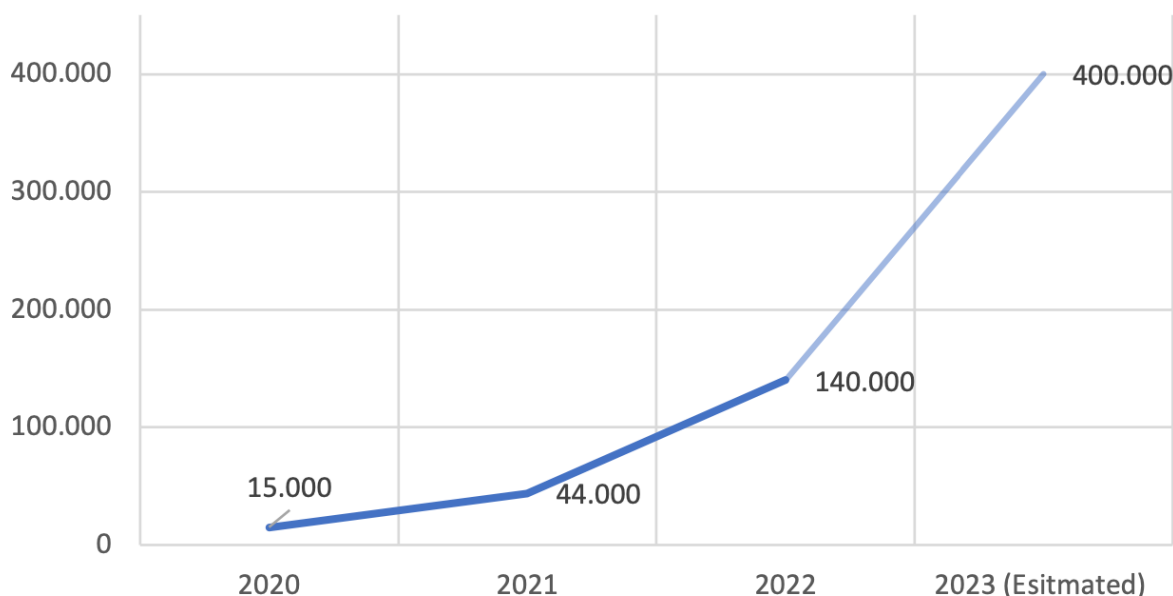
Source: BfArM 2023a

Appendix 5: Release date and status of DiGAs per Year



Source: Techniker Krankenkasse (2022); BfArM (2023a)

Appendix 6: DiGA prescriptions growth from 2020



Source: GKV Spitzenverband (2023)

Appendix 7: Financial model for own DiGA from acquiring Eudomia

Assumptions		Year 1	Year 2	Year 3	Year 4	Year 5	Total
# of Prescriptions DiGa			12.000	13.800	15.870	18.251	59.921
Y-o-Y DiGa Growth	15%						
Avg Price in €	288,10 €		600,00 €	210,00 €	210,00 €	210,00 €	
Reduction in Price After 1st YR	-65%						
Redemption Rate	50%						
No. Redeemed Codes			6.000	6.900	7.935	9.125	
Gross Revenue			3.600.000 €	1.449.000 €	1.666.350 €	1.916.303 €	8.631.653 €
Costs based on % of Revenue	-16%	-	576.000 €	231.840 €	266.616 €	306.608 €	1.381.064 €
Rev. Share App	-12%	-	432.000 €	173.880 €	199.962 €	229.956 €	1.035.798 €
Rev. Share Consultant	-4%	-	144.000 €	57.960 €	66.654 €	76.652 €	345.266 €
Net Revenue			3.024.000 €	1.217.160 €	1.399.734 €	1.609.694 €	7.250.588 €
Costs based on # of Prescriptions	- 26 €	-	312.000 €	358.800 €	412.620 €	474.513 €	1.557.933 €
Doctor Costs	- 20 €	-	240.000 €	276.000 €	317.400 €	365.010 €	1.198.410 €
Concierge Service Cost	- 6 €	-	72.000 €	82.800 €	95.220 €	109.503 €	359.523 €
PC2			2.712.000 €	858.360 €	987.114 €	1.135.181 €	5.692.655 €
Fix Costs		-	630.000 €	580.000 €	530.000 €	530.000 €	2.270.000 €
Salaries		-	530.000 €	530.000 €	530.000 €	530.000 €	2.120.000 €
External Consult.		-	100.000 €	50.000 €			150.000 €
EBITDA			2.082.000 €	278.360 €	457.114 €	605.181 €	3.422.655 €

		# of Prescriptions					
3.989.424 €		25.000	40.000	55.000	70.000	85.000	100.000
AVG DiGa Price	100 €	- 1.675.000 €	- 1.528.000 €	- 1.381.000 €	- 1.234.000 €	- 1.087.000 €	- 940.000 €
	150 €	- 1.240.000 €	- 832.000 €	- 424.000 €	- 16.000 €	392.000 €	800.000 €
	200 €	- 805.000 €	- 136.000 €	533.000 €	1.202.000 €	1.871.000 €	2.540.000 €
	250 €	- 370.000 €	560.000 €	1.490.000 €	2.420.000 €	3.350.000 €	4.280.000 €
	300 €	65.000 €	1.256.000 €	2.447.000 €	3.638.000 €	4.829.000 €	6.020.000 €
	350 €	500.000 €	1.952.000 €	3.404.000 €	4.856.000 €	6.308.000 €	7.760.000 €
	400 €	935.000 €	2.648.000 €	4.361.000 €	6.074.000 €	7.787.000 €	9.500.000 €

		# of Prescriptions					
3.989.424 €		25.000	40.000	55.000	70.000	85.000	100.000
Redemption Rate	10%	- 1.887.063 €	- 1.867.300 €	- 1.847.538 €	- 1.827.775 €	- 1.808.013 €	- 1.788.250 €
	15%	- 1.558.094 €	- 1.340.950 €	- 1.123.806 €	- 906.662 €	- 689.519 €	- 472.375 €
	20%	- 1.229.125 €	- 814.600 €	- 400.075 €	14.450 €	428.975 €	843.500 €
	25%	- 900.156 €	- 288.250 €	323.656 €	935.563 €	1.547.469 €	2.159.375 €
	30%	- 571.188 €	238.100 €	1.047.388 €	1.856.675 €	2.665.963 €	3.475.250 €
	35%	- 242.219 €	764.450 €	1.771.119 €	2.777.788 €	3.784.456 €	4.791.125 €
	40%	86.750 €	1.290.800 €	2.494.850 €	3.698.900 €	4.902.950 €	6.107.000 €
	45%	415.719 €	1.817.150 €	3.218.581 €	4.620.013 €	6.021.444 €	7.422.875 €
	50%	744.687 €	2.343.500 €	3.942.313 €	5.541.125 €	7.139.938 €	8.738.750 €

Source: Meditech's internal documentation

Appendix 8: Financial plan DiGA partnering for 202

DiGAs	Jan. 23	Feb. 23	Mär. 23	Apr. 23	Mai. 23	Jun. 23	Jul. 23	Aug. 23	Sep. 23	Okt. 23	Nov. 23	Dez. 23	FY 23
Orders													
Eudomia	350	387	409	462	502	574	610	650	684	703	739	778	6.848
Partner 2	11	11	11	22	22	22	34	34	34	45	45	45	334
Partner 3	175	175	175	218	218	218	220	220	220	220	220	220	2.498
Partner 4	0	175	175	220	238	238	242	242	242	242	242	242	2.497
Partner 5	0	0	96	112	124	137	151	166	181	199	218	239	1.624
Partner 6	0	0	0	0	0	0	50	50	50	50	50	50	300
Total	536	748	866	1.034	1.103	1.188	1.306	1.361	1.411	1.459	1.514	1.574	14.100
AOV													
Eudomia	100	100	100	100	100	70	70	70	70	70	70	70	83
Partner 2	120	120	120	120	120	70	70	70	70	70	70	70	91
Partner 3	70	70	70	70	70	70	40	40	40	40	40	40	55
Partner 4	0	60	60	60	60	60	60	60	60	50	50	50	53
Partner 5	0	0	110	110	110	110	110	110	110	110	110	110	92
Partner 6	0	0	0	0	0	0	250	250	250	250	250	250	125
Total	91	84	87	87	87	73	75	75	75	74	74	75	80
Revenue in €													
Eudomia	35.000	38.700	40.900	46.200	50.200	40.180	42.700	45.500	47.880	49.210	51.730	54.460	542.660
Partner 2	1.260	1.260	1.260	2.646	2.646	1.544	2.352	2.352	2.352	3.161	3.161	3.161	27.153
Partner 3	12.250	12.250	12.250	15.225	15.225	15.225	8.800	8.800	8.800	8.800	8.800	8.800	135.225
Partner 4	0	10.500	10.500	13.200	14.250	14.250	14.520	14.520	14.520	12.100	12.100	12.100	142.560
Partner 5	0	0	10.592	12.326	13.654	15.099	16.592	18.209	19.962	21.868	23.977	26.307	178.587
Partner 6	0	0	0	0	0	0	12.495	12.495	12.495	12.495	12.495	12.495	74.970
Total	48.510	62.710	75.502	89.597	95.975	86.298	97.459	101.876	106.009	107.634	112.263	117.323	1.101.155
Doc Costs in €													
AVG Doctor Costs (per order)	20	20	20	20	20	20	20	20	20	20	20	20	20
Total Doctor Costs	10.710	14.950	17.316	20.672	22.064	23.766	26.129	27.223	28.221	29.179	30.282	31.486	281.998
PC2 in €													
Eudomia	28.000	30.960	32.720	36.960	40.160	28.700	30.500	32.500	34.200	35.150	36.950	38.900	405.700
Partner 2	1.050	1.050	1.050	2.205	2.205	1.103	1.680	1.680	1.680	2.258	2.258	2.258	20.475
Partner 3	8.750	8.750	8.750	10.875	10.875	10.875	4.400	4.400	4.400	4.400	4.400	4.400	85.275
Partner 4	0	7.000	7.000	8.800	9.500	9.500	9.680	9.680	9.680	7.260	7.260	7.260	92.620
Partner 5	0	0	8.666	10.085	11.172	12.354	13.575	14.898	16.333	17.892	19.618	21.524	146.117
Partner 6	0	0	0	0	0	0	11.495	11.495	11.495	11.495	11.495	11.495	68.970
Total	37.800	47.760	58.186	68.925	73.912	62.532	71.330	74.653	77.788	78.455	81.980	85.836	819.157

Source: Meditech's internal documentation

Appendix 9: All DiGAs preliminary and finally listed at BfArM

DiGA Name	Provisionally until	Final	Price	Medical indication
Cara Care für Reizdarm	25.11.2023		574,56 €	Irritable bowel syndrome (IBS)
Companion patella powered by medi		X	345,10 €	Knee pain
deprexis		X	210,00 €	Depression
Eudomia		X	235,00 €	Erectile Dysfunction
edupression.com	25.12.2023		357,00 €	Depression
elevida		X	243,00 €	Multiple Scleroses
elona therapy Depression	25.12.2023		535,49 €	Depression
Endo-App	08.03.2024		402,30 €	Endometrioses
HelloBetter Diabetes und Depression		X	222,99 €	Diabetes Type 1 / Type 2 + Depression
HelloBetter Panik		X	230,00 €	Panic disorder
HelloBetter ratiopharm chronischer Schmerz		X	599,00 €	Chronic pain disorder
HelloBetter Schlafen	17.12.2024		599,00 €	Sleep disorders
HelloBetter Stress und Burnout		X	235,00 €	Stress and burnout
HelloBetter Vaginismus Plus		X	235,00 €	Vaginism
Invirto- Die Therapie gegen Angst		X	220,00 €	Panic disorder
Kaia COPD: Meine aktive COPD Therapie	25.12.2023		415,00 €	Chronic lung disease
Kaia Rückenschmerzen		X	489,39 €	Backpain

Kalmeda		X	189,00 €	Tinnitus
levidex	06.01.2024		2.077,40 €	Multiple Scleroses
Mawendo		X	119,00 €	Knee pain
Mebix	13.07.2024		499,00 €	Diabetes Type 2
Meine Tinnitus App - Das digitale Tinnitus Counseling	05.03.2024		449,00 €	Tinnitus
Mindable: Panikstörung und Agoraphobie		X	576,00 €	Panic disorder
My7steps App	16.02.2024		470,05 €	Depression
neolexon Aphasie	05.02.2024		487,90 €	Speech therapy training
NeuroNation MED	12.05.2024		499,00 €	cognitive impairment
NichtraucherHelden- App		X	329,00 €	Tobacco addiction
Novego: Ängste überwinden	23.03.2024		219,98 €	Panic disorder
Novego: Depressionen bewältigen		X	249,00 €	Depression
optimune	13.07.2024		952,00 €	Breast cancer
Orthopy bei Kniewerletzungen	08.09.2024)		487,84 €	Knee pain
Oviva Direkt für Adipositas		X	411,30 €	Obesity
priovi - digitale Unterstützung der Borderline- Behandlung	04.12.2023		855,82 €	Borderline

ProHerz	14.05.2024		605,00 €	Heart failure
re.flex	28.03.2024		784,21 €	Knee pain
Selfapys Online-Kurs bei Binge-Eating- Störung		X	540,00 €	Eating Disorder
Selfapys Online-Kurs bei Bulimia Nervosa		X	540,00 €	Bulimia
Selfapys Online-Kurs bei chronischen Schmerzen	20.04.2024		540,00 €	Chronic Pain
Selfapys Online-Kurs bei Depression		X	217,18 €	Depression
Selfapys Online-Kurs bei				
Generalisierter Angststörung		X	228,50 €	Panic disorder
sinCephalea - Migräneprophylaxe	09.08.2024		690,00 €	Migraine
Smoke Free - Rauchen aufhören	28.01.2024		389,00 €	Tobacco addiction
somnio		X	224,99 €	Sleeping disorder
velibra		X	230,00 €	Panic disorder
Vitadio	14.04.2024		499,80 €	Diabetis
Vivira		X	206,79 €	Chronic Pain
vorvida		X	192,01 €	Alcohol addication
zanadio		X	218,00 €	Obesity

DiGA Name	Excluded at	Medical indication	Reason for exclusion
CANKADO PRO-React Onco	21.04.2023	Breast cancer	No positive care effects could be demonstrated
ESYSTA App & Portal – Digitales Diabetesmanagement	04.10.2022	Diabetes	Did not finish final study in time
M-sense Migräne	04.04.2022	Migraine	Removed from list at request of the manufacturer
Mika	25.03.2022	Depression due to cancer diagnosis	Removed from list at request of the manufacturer
PINK! Coach	26.10.2023	Breast cancer	No positive care effects could be demonstrated
Rehappy	26.09.2022	Stroke	No positive care effects could be demonstrated
Selfapys Online-Kurs bei Panikstörung	18.11.2022	Panic disorder	No positive care effects could be demonstrated

Source: BfArM (2023a)

TEACHING NOTE

Case synopsis

The case of Meditech Group, explores the evolution of a company in the rapidly changing landscape of digital healthcare. Founded in 2018, Meditech focused on disrupting the digital healthcare scene, particularly addressing gaps in patient care with innovative, digital solutions. The case pivots around the strategic decisions made in response to Germany's 2019 passed Digital Healthcare Act and the rise of Digital Health Applications (DiGAs). Meditech initially refrained in 2020 from developing its own Digital Health App as of uncertain market conditions and great risks, opting instead for a low-risk, high-profit partnership model with DiGA manufacturers, by leveraging parts of their existing business model. The partnerships not only proved financially successful but also offered valuable insights into the DiGA market. As of 2023, Meditech faces a new decision, as an acquisition opportunity opens to enter the DiGA market as a manufacturer. This decision holds significant implications for Meditech's future, weighing the potential for enhanced performance and greater value capture against the risks and hidden costs in the competitive, evolving DiGA market. This case study examines the strategic considerations, risks, and opportunities involved in Meditech's process, providing a deep dive into the strategic decision-making and the critical choices facing the company.

Teaching purpose

The purpose of the Meditech case is to analyze in detail all steps necessary to come to a justified diversification decision. The case has sufficient information about the external environment and internal resources and capabilities as well as information about the business model and the overall company vision for the students to explore different angles and all the issues that come up when deciding upon a differentiation and vertical integration opportunity. In particular, it allows students to initially assess whether a diversification opportunity has the potential to create value, explore the advantages and disadvantages of different modes of entry, and finally

decide on what the company has to do to capture value and gain sustainable competitive advantage. By the end of the class discussion, students will be able to

- perform the “3 essential tests” by Porter to understand the attractiveness of the market, the cost of entry, as well as the value capture potential of a firm to evaluate the diversification potential.
- weight up the pros and cons of different modes of entry and create scenarios with particular assumptions under which one mode of entry is superior to the other
- assess the value capture potential and analyze sources of sustainable competitive advantage of the underlying resources and capabilities.

While the context of this diversification decision is Meditech entering the DiGA market, instructors can easily ask the students to apply the 2 tests to other Meditech vertical integration decisions (Buying its online pharmacy or developing its own Viagra (tadalafil) generic) to see the underlying drivers of such decisions and to generalize the underlying theory of vertical integration. Appendix 10 serves as a directive for structuring the teaching plan, encompassing suggested timings, to guide discussions of the case study in alignment with the outlined learning goals.

Suggested discussion questions

Q1: Analyze the DiGA industry in 2023. Is Meditech’s diversification strategy likely to succeed in creating value for the business?

As the case highlights the situations around the diversification into the DiGA industry at different points in time (2020 vs 2023), the students could be asked to give a short summary of the situation in 2020 and explain why Meditech decided to not explore the DiGA industry further at that point of time. To start the discussion around the situation in 2023, the lecturer can ask students “*What questions do you have to ask in order to assess if the diversification into*

a new market/industry has the potential to create value for a firm". By collecting and sorting answers from students, the framework of the 3 essential tests by Porter should become apparent and be finally presented. With the framework at hand, the students should go through each question, thinking about suitable frameworks to analyze and conclude whether the diversification strategy is likely to succeed in creating value for the business.

A) "Attractiveness Test"

To start, PESTEL is an appropriate tool to analyze macro-environmental factors influencing the industry. Discussion should focus on the relation between the various PESTEL drivers and should mention but are not limited to the key points listed in Appendix 11. The discussion should focus on the favorable political factors, how they kicked off growth in the market and influenced consumer adoption and demand. While environmental factors can be neglected, technological advancements and legal requirements must be highlighted.

The 5-forces analysis should help them understand the complex interplay of factors that shape market dynamics and inform strategic decisions about market attractiveness. Aspects of the 5-forces analysis, as shown in Appendix 12, should be emphasized. The special situation, that buyers (patients) don't pay for the service, and thus their bargaining lies not with them but with the insurers, should be highlighted. When discussing rivalry among existing competitors, students might perceive the DiGA market initially as highly competitive, primarily due to the increasing number of DiGAs. However, upon closer examination, this anticipated level of intense competition doesn't fully materialize. This is attributed to the diverse array of digital health applications within the market, each focusing on specific health conditions. It's crucial to note that DiGAs targeting different health issues aren't in direct competition with each other. They should rather be viewed as collaborative entities, sharing best practices and insights.

Despite limited data availability, due to the lack of obligatory data publishing by insurances and DiGA manufacturers, a quick market analysis can be insightful for students.

As of the latest reports, the number of DiGA applications (Appendix 5) and the increasing rate of their prescriptions (Appendix 6) underscore significant growth opportunities in the market. However, realizing the full potential of the DiGA market remains an ongoing process. The information provided in the case combined with the earlier analysis, underscores a significant growth opportunity in the German digital health market. Students should conclude, that while the DiGA initiative and the broader digital health landscape in Germany have shown promising developments, the realization of the market's full potential remains a work in progress. The integration of digital health applications into the healthcare system, the evolving regulatory landscape, and the increasing interest in digital health solutions among patients and healthcare providers all contribute to this expanding market. However, the gap between the potential market value and the current realization suggests that there are still untapped opportunities and challenges to be addressed in fully harnessing the benefits of digital health innovations in Germany.

Finally, students are encouraged to answer the underlying question of market attractiveness, by synthesizing their understanding of the external environment from the insights gained through the performed analyses. The key arguments can differ, but it should become apparent, that even though the market bears some risks and is highly regulated, the DiGA market in 2023 appears to be attractive (in great contrast to 2020), primarily due to its growth potential driven by government support, increasing public adoption, and technological advancements. However, this attractiveness is moderated by the high regulatory barriers, the great dependency on insurers, and the substantial resources required for market entry and compliance. For companies willing to navigate these challenges, the DiGA market offers substantial opportunities for growth.

B) Cost of entry

The instructor should emphasize the critical evaluation of whether the potential profits from entering the market outweigh the associated costs. Students should consider the financial implications of different entry strategies. Initially, the partnering approach appears financially advantageous, as demonstrated in Appendix 8, with minimal setup fees and negligible fixed costs. This path offers lower risk and lower cost to somewhat participate in the DiGA industry.

In contrast, a more integrated approach involves significantly higher entry costs. However, as illustrated in Meditech's financial model (Appendix 7), the high initial costs of clinical studies and running fix costs are offset by the long-term revenue potential. This assessment should include a thorough discussion of key variables, such as the redemption rate of insurance reimbursements and patient activation of DiGAs, as well as the pricing for the first and second year. Furthermore, Meditech's strategic approach to minimize capital expenditure should be highlighted. Through smart profit-sharing contracts with partners like Erectoly and MedApp Innovations, Meditech effectively reduces both risks and initial investment, creating a more favorable financial scenario. Concluding the discussion, the instructor should guide students to recognize that under these specific conditions and assumptions, the Cost of Entry Test is successfully passed.

C) Better – off test

The overall goal of this last test is that students understand the key resources and capabilities to evaluate whether the new DiGA venture will create added value when combined with the existing operations of Meditech.

Initially, students should identify tangible and intangible key resources by delving into Meditech's business model and the company-specific information provided in the case study. Furthermore, the instructor should guide the discussion towards Meditech's core capabilities, such as their proficiency in brand building, and expertise in creating high-converting websites

and products. Students are not limited but should incorporate the points presented in Appendix 13.

Ultimately the potential value-add, which is derived from the core resources and capabilities should be analyzed. The concept of the value stick should be introduced for this. The lecturer can start by drawing two value sticks on the board as shown in Appendix 14. It should become apparent, that Meditech generates value by both increasing the customer benefit and by reducing its costs. Students should start by collecting benefit drivers for existing and new patients (Appendix 15) followed by cost advantages by Meditech (Appendix 16) and finally conclude, that Meditech has the potential to create added value by diversifying into the DiGA Market. Comparing the situation in 2020 to that in 2023, it's evident that the landscape has evolved favorably for Meditech. The company is now in a much stronger position to consider diversification into the DiGA market. External conditions have stabilized, and Meditech has the necessary resources and capabilities to capitalize on them.

Q2: Collect arguments for and against each approach. Why is both not possible?

After it's clear that value is created along the value chain, it still needs to be decided whether partnering or acquisition is the best way to participate in the DiGA market and capture value. As the only two sensible options are partnering and the acquisition for Meditech to diversify, we stick to those and do not explore other means of entry. In order to evaluate both options students should collect arguments for and against each approach. Some of the potential arguments are shown in Appendix 17 and Appendix 18. The partnering business allows Meditech to participate in the DiGA market at low-cost and mitigated risks. Although profits are limited, they can use the partnering business as a cash cow and invest profits in the main business. On the flip side, they are highly dependent on DiGA partners and have low bargaining power due to great substitutes. Further, too many partnerships bear the risk of diluting Meditech's carefully in-house built brands.

Acquiring its own DiGA positions Meditech for direct market control and rapid entry, leveraging its existing customer base for significant profit potential. However, this move carries risks, including regulatory uncertainties and potential dilution of focus from core competencies, while also risking existing partnerships in the competitive DiGA market. Students can construct two scenarios based on different risk profiles, investment levels, and strategic objectives, that make one or the other approach favorable. **Scenario 1: Risk-Averse Approach (Partnering).**

When Meditech prioritizes a conservative, low-risk strategy with a focus on stable returns and minimal investments in businesses not related to their core offerings, partnering with existing DiGA providers seems to be the most favorable option. This approach allows Meditech to leverage its existing infrastructure and expertise in digital health while minimizing the risks. The partnership model can act as a cash cow, providing consistent profitability which can be invested to grow its core business, with very limited exposure. If market dynamics change or the partnership ceases to be beneficial, Meditech can easily pivot without significant financial losses. **Scenario 2: Rapid Market Entry and Expansion (Acquisition).** Under the assumption that Meditech aims for a quick and substantial entry into the DiGA market, seeking immediate market presence and scale, acquiring Erectoly becomes the preferred choice. This move would enable Meditech to gain a foothold in the market with sharing risk in the lengthy and complex process of developing a DiGA. The strategy, while entailing considerable investments, positions Meditech for potentially higher long-term gains and market influence. Leveraging its strong brand presence and established infrastructure, Meditech is well-equipped to rapidly scale the acquired DiGA, fully capitalizing on the market opportunities at hand. To conclude, students should present arguments (some listed in Appendix 19), about why mid-to-long-term, both partnering, and the acquisition are not combinable.

Q3: What is the right path for Meditech? Which one will allow the company to capture more value in a sustainable way?

The last question is divided into three parts to guide students step by step to a final decision concerning diversification: (1) Assessing the current value capture potential of both approaches (2) and analyzing potential sources of sustainable competitive advantage for Meditech to finally (3) come to a justified decision on how to proceed.

Part 1: To start the discussion students should assess the current value capture potential of Meditech by referring to the economic models and comparing the 2 approaches (Appendix 23). In the end, it's a no-brainer that with owning the DiGA the value capture potential is greater than with the partnering approach, however, this example demonstrates the different scales of potential revenues and profits. It should be made clear, that it's just a rough calculation to showcase the impact and does not include all possible variables, such as costs related to clinical studies or prescriptions obtained through non-digital channels.

Part 2: After it is clear, that the current value capture potential of an acquisition is without doubt higher, the discussion should focus on the more long-term analysis of potential sources of sustainable competitive advantage of the two approaches, by referring to the previously collected key resources and capabilities.

When considering the partnering strategy, Meditech's key strengths lie in its ability to issue online prescriptions via medical anamnesis (MA) and its expertise in sales and marketing. Students should be encouraged to apply a structured five-step approach to assess these capabilities (Appendix 20). While the key activities identified for partnering are both durable, they represent only sources of temporary competitive advantage. Although the combination of these services is still somewhat new, it should become obvious that the ease with which these activities can be replicated and the availability of strong substitutes in the market diminish their uniqueness and long-term strategic value. (Appendix 21).

Students should now evaluate the key resources and capabilities that Meditech would leverage in owning and operating a DiGA. Due to time limits, it should be communicated to

students that the focus is set on three activities as highlighted in Appendix 22. If the case should serve for a longer session, the discussion could be extended to the other key resources and capabilities listed in Appendix 22. Besides Meditech's huge market access and customer base, the digital health treatments to issue e-prescriptions present key sustainable competitive advantages over other DiGA manufacturers.

While analyzing sources of competitive advantage for each approach, students will likely mention Meditech's extensive customer base as a pivotal asset. The lecturer should take this impulse to steer the conversation towards considerations on why Meditech cannot leverage all its resources and capabilities equally in both approaches. On a high level, students should mention arguments as shown in Appendix 23. If the lecturer wants to go deeper into this topic, it can be done with the above-mentioned example of Meditech's patient base.

While the existing customer base is a critical asset for Meditech as DiGA manufacturer, Students should analyze why it does not translate into a huge advantage for the partnering option, by considering the legal and strategic implications of sharing Meditech's patient base with third-party DiGA manufacturers. Legally, the transfer or selling of patient data raises complex data security and privacy issues, particularly with stringent GDPR. Strategically, the discussion should focus on the potential risks of brand dilution. Excessively incorporating third-party DiGAs into Meditech's ecosystem could weaken the strong trust and brand loyalty Meditech has built with its in-house health solutions. Ultimately, Meditech would channel patients towards a business where the value created is largely captured by the DiGA partner, with Meditech retaining only a small portion of it.

To conclude the analysis of sources of sustainable competitive advantage, the concept of network externalities emerges as an important factor and should be discussed. Students should be instructed to analyze the impact of network externalities both in the partnering and ownership model. The analysis of Meditech's partnering strategy in the DiGA market is

straightforward, revealing that the volume of patients through the five DiGA partnerships of Meditech isn't yet large enough to lead to positive network effects and thus to an unassailable advantage.

On the contrary, when exploring Meditech as a DiGA owner, the impact of network effects shifts significantly. The company can strategically utilize its existing customer base from PrimeMan to jumpstart network effects and quickly reach a critical mass of users for its own DiGA and thus not have to start from zero. This user base is essential to attract not only more patients but also healthcare professionals through direct and indirect network effects. The lecturer should emphasize that doctors' willingness to engage with a DiGA platform is contingent on there being a substantial number of patients using the app. Simultaneously, the app's value to patients increases with the availability of reputable and skilled doctors. Here, Meditech's robust medical network becomes a significant asset, ensuring quality care and prompt responses to urgent patient inquiries. The discussion should help students grasp the effects of network externalities in Meditech's ecosystem, appreciating how the company's large user base and robust medical network jumpstarts operations and mutually reinforce each other, overcoming entry barriers and enhancing the overall value proposition of Meditech's potential DiGA offering.

Part 3: In concluding the case, the lecturer should synthesize the findings to guide students towards a well-justified decision on Meditech's strategic approach in the DiGA market. This final part of the discussion should focus on Meditech's unique ecosystem and its comparative advantages over the other ED-DiGA manufacturer Eudomia. The comparison to competitors in the partnering business is neglected, as the partnering business provides no source of sustainable competitive advantage as analyzed before. The lecturer should highlight two critical aspects:

Network effects and market entry: The discussion should revisit the ED-DiGA market. Here, students should mention how Eudomia leveraged its first-mover advantage, by

building a network of patients and healthcare professionals over the years, creating substantial entry barriers. The instructor should then pivot to Meditech's capabilities to bypass these significant entry barriers, leveraging its extensive patient base and healthcare network to initiate a critical mass and positive network effects from the outset – not only from the patient but also from the doctor side. This discussion should illuminate how Meditech's unique market access and customer base not only allows market entry but also establishes a long-term competitive advantage over Eudomia. Unlike Eudomia, which lacks a continuous influx of new potential patients, Meditech can seamlessly transition users from its ED platform to its DiGA, sustaining and amplifying network effects.

Legal and operational advantages: Next, the lecturer should explore how Meditech's legal and operational setup allows it to both manufacture and prescribe DiGAs, creating a unique competitive advantage. While specific operational details remain confidential, the broader understanding is that Meditech's self-sufficiency in issuing online prescriptions circumvents the need for external partnerships, leading to significant cost savings. Further, the lecturer should guide students to understand the economies of scope Meditech enjoys. With its integrated approach, the company utilizes in-house capabilities in marketing, sales, and operations, leading to significant cost efficiencies and operational synergies.

Conversely, students should contrast this with Eudomia's operational model. While Eudomia might have internalized some aspects of sales and marketing over time, it still relies on external services for issuing e-prescriptions, a crucial component of the DiGA process. This reliance is not just an operational complexity but also a financial burden, as it involves paying a substantial portion of the DiGA price to partners for each e-prescription issued. The lecturer should emphasize the strategic implication of this difference: While the exact proportion of offline versus online issued prescriptions in Eudomia's operations is not publicly disclosed, the digital nature of DiGAs suggests a significant reliance on e-prescriptions. Therefore, Eudomia's

dependency on external partners for e-prescription issuance, about 30% of the total DiGA price (as outlined in Appendix 8 & 9), contrasts sharply with Meditech's more economically efficient and integrated approach.

As the discussion closes, the lecturer should steer students towards the critical decision facing Meditech: choosing between owning a DiGA or further scaling their partnerships. Firstly, students should be directed to consider how Meditech, by owning and operating a DiGA, would be able to fully harness its distinctive resources and capabilities. The lecturer should highlight the synergistic potential of this approach, where Meditech can create more substantial and integrated benefits compared to the partnering model. This ownership would not only allow Meditech to directly reach a critical mass of users but also benefit from indirect network externalities, a key aspect in the digital health market.

Additionally, the discussion should extend to how this strategy applies to other potential DiGAs in Meditech's portfolio. The lecturer should encourage students to recognize that the same arguments apply for all platforms where an existing patient base and a DiGA have a fit between the indications, such as in cases of obesity. By guiding students through these considerations, the lecturer should lead them to understand that Meditech's decision to own a DiGA aligns with its strategic goal of maximizing its unique market position, fostering sustainable growth, and efficiently scaling its digital health solutions.

APPENDICES TO THE TEACHING NOTE

Appendix 10: Suggested teaching plan

Students should make themselves known to the company and the DiGA market prior to the class. They should understand the external factors and Meditech's internal resources in 2020, which led them to not diversify into the DiGA market at that point in time. They will also receive Q1 for preparation in advance. However, the associated frameworks will not be pre-discussed. It's up to them to decide how to analyze the DiGA market in 2023 and determine if Meditech diversification strategy is likely to succeed in creating value for the business. The preparation will encourage them to better understand the changed situation in 2023, and compare the two diversification approaches, which is required to have a fruitful class discussion. The other questions (Q2/Q3) are not presented prior to students and should only be discussed in class. The planned duration for the class discussion is 90 minutes. Nonetheless, the comprehensive material provided in the case study and teaching note, including solutions to various case questions, offers enough content to potentially extend the discussion by an additional 30 minutes, giving the instructor greater flexibility.

Part	Subject	Duration	
1 Preparation/ Self-Study	Students receive case and prepare question (Q1) 1 week before the class	90 min	
	Students review the provided materials, understand the market and the company in 2020 and prepare Q1 for the in-class discussion		
2 Class Discussion	The instructor gives a short overview of the class session.	5 min	90 min
	Students discuss Q. 1, coordinated by the instructor.	30 min	
	Students discuss Q. 2, coordinated by the instructor.	15 min	
	Students discuss Q. 3, coordinated by the instructor.	35 min	
	The instructor wraps up the case and answers outstanding questions.	5 min	

Appendix 11: PESTEL Analysis applied to the DiGA Market in Germany in 2023

PESTEL Drivers	Description
Political	With the Digital Healthcare Act, the German government created a conducive, lasting environment for the growth of new digital health solutions and showed its proactive stance toward digital health. However, there is a large influence of doctor & pharma lobby against telemedicine and digital health and a missing lobby for digital health companies.
Economical	There's a growing market for digital health solutions, influenced by increasing healthcare spending and digitalization.
Social	- Increasing public acceptance and demand for digital health solutions - Changing perception as digital health provides actual positive care effects and turns out to be great additional treatment.
Technological	- Continuous technological advancements in areas like AI, machine learning, and big data analytics drive the development of new and more effective DiGAs. - The ability of DiGAs to integrate with existing healthcare systems and share data seamlessly is vital.
Environmental	Reduced carbon footprint due to less physical travel for healthcare services
Legal/Regulation	- Compliance with GDPR and other data protection regulations. - Compliance with medical device regulations and the process of obtaining necessary certifications like CE marking. - Everything must be passed through BfArM and comply with its very high standards.

Appendix 12: Porters 5- Forces analysis

Force	Explanation
Threat of New Entrants	- Regulatory hurdles, extensive clinical trials, and technological infrastructure requirements - Government policies might lower or raise these barriers, e.g. the fast-track process and the associated provisional authorization. - Network externalities of established players create great barrier to entry. - These hurdles create a barrier that only well-prepared and resourceful new entrants can surmount.
Bargaining Power of Suppliers	Suppliers in the DiGA ecosystem, include technology providers, healthcare professionals, digital prescription

	services (like the one Meditech is offering), and also concierge services. - The availability of healthcare professionals is crucial to prescribe DiGA, but with predefined standard rates of the government for treatments, their bargaining power is very limited. - Wide selection and availability of suppliers are reducing their overall bargaining power.
Bargaining Power of Buyers	- Buyers are comprised of both end-users (patients) and insurance companies - Buyer price sensitivity does not have an impact as health insurers cover all expenses. - The bargaining power of insurance companies is significant, affecting the final price of the DiGA and controlling each patient's cost reimbursement.
Threat of Substitute Products or Services	- Identification of substitute service poses a challenge, given the uniquely diverse nature of DiGA - Traditional healthcare services and alternative digital health solutions may serve as potential substitute products for current DiGA offerings. - Threat of substitute products very low
Rivalry Among Existing Competitors	- The number of competitors, the range of their offerings, the market growth rates, and the potential for innovation and differentiation are important factors - Direct competition only with DiGAs treating the same illnesses. Nevertheless, high concentration of DiGAs in the field of psychological health (depression, panic disorder,..) where competition is more pronounced than in other fields.

Appendix 13: Meditech key resources and capabilities

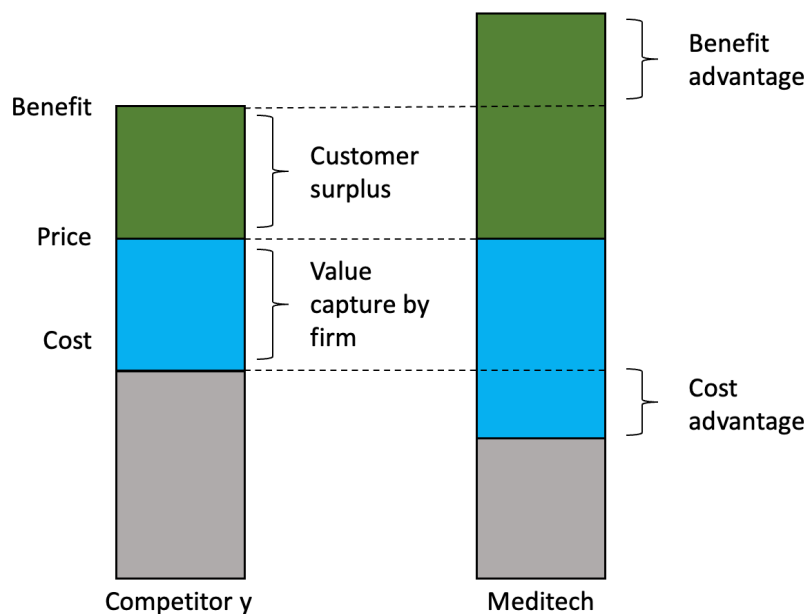
Resources

- **Market access and userbase:** Derived from existing services like PrimeMan, providing a substantial customer base and market access.
- **Brand recognition and trust:** Meditech's reliable and credible reputation in the target customer segments.
- **Healthcare expertise:** Deep knowledge in digital health, telemedicine, and healthcare regulations, augmented by the presence of medical professionals like Martin von der Heyden
- **Network of medical experts and advisors:** Particularly strong in the urology sector, offering valuable insights and connections.
- **Multidisciplinary staff:** A diverse team across various departments such as sales, marketing, tech, customer support, operations, legal and medical.

Capabilities

- **Brand building:** Demonstrated expertise in establishing strong brands (e.g. PrimeMan) in the digital health space.
- **Marketing and sales expertise in healthcare:** Navigating the unique challenges of marketing and selling within the highly regulated healthcare domain.
- **Digital health treatments to issue online prescriptions:** network of healthcare professionals who are reviewing Mas to issue online prescriptions.

Appendix 14: Value capture potential of Meditech



Appendix 15: Value capture potential of Meditechs customers in the DiGA market

Type of Patient	Benefit drivers
a) New Customers (Who come specifically for DiGA)	- Enhanced care effects - o The ED-DiGA developed by Meditech has to have superior care effects compared to the existing option Eudomia - o Incorporation of new technologies like AI - Holistic treatment approach - o Patients can benefit from a comprehensive approach that combines the DiGA with existing ED treatments offered by Meditech - o More personalized and effective treatment plan - Meditech reputation - o Great quality standards - o Approved by high-profile medical board

b) Existing Customers (existing PrimeMan / Meditech customers)	- Additional benefit at no extra cost - o PrimeMan customers who transition to using the DiGA receive added benefits without incurring additional costs. - Greater possibility of successful treatment - o An integrated solution combining pharmaceutical and digital therapeutic approaches. - The combined value exceeds that of standalone treatments
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Appendix 16: Value capture potential of Meditech in the DiGA market

Benefit driver	Explanation
Existing customer Base	- With an existing customer base from its platforms Meditech can effectively cross-sell its DiGA and leverage those customers. - Lowers costs by removing the necessity of buying/leveraging customers from other firms. - Additional value for Partner, as they can leverage on Meditech customers
Economies of Scope	- Lowering costs of collection of business by sharing Meditech's in-house telemedicine infrastructure and expertise in digital health - Leveraging existing human resources and sharing activities across all departments clearly reduces the costs of partnering and having owning DiGA
Economies of Learning	- Meditech's collaborations, like the one with Eudomia, and operating in the digital health sector provided great learning opportunities - Learnings will make DiGA development more efficient and precise and with that lowering costs - Leveraging on this knowledge and partnerships, Meditech can offer superior value to partners or make DiGA better
Efficient internal processes	- Fast and lean processes and cross functional teams - This allows Meditech to quickly shift manpower and react to new situations or business opportunities
Market Positioning	- An additional treatment method for ED increases Meditech trusted and credible position in the market and can be a strong driver for additional patients
Favorable governmental policies	- Fast track process allows for above-average prices in the first year

Appendix 17: Advantages and disadvantages of partnering with DiGA manufacturers

Advantage	Disadvantage
Strategic Risk - Partnering significantly lowers the initial investment and ongoing operational costs, by leveraging existing processes. - It also mitigates risks, particularly those associated with market entry and regulatory compliance.	Financials - Many DiGAs are facing price declines of up to 50% after the 1st year. Meditech's price for online prescriptions has to adapt and profits potential will decrease.
Strategic focus - By partnering, Meditech can maintain the focus on its core business while leveraging the capabilities of its partners to increase value for its own customers (cross- and upsell) - Use partnering business as cash cow and invest profits in main business	Profit sharing - While partnering reduces initial costs, it also means sharing the profits. This results in low long-term returns for Meditech
Costs - Through a good contracting strategy, Meditech can offer new products from 3rd parties without incurring the costs of acquiring and integrating an organization	Brand dilution - Partnering with lots of companies might dilute Meditech's brand identity and its influence on customer experience, which is a key aspect of their current business model.
Future outlook - The DiGA market is rapidly growing, and thus more partnerships should be possible, however one should keep in mind that not all indications are possible to prescribe digitally. - Build more competence and offers around complementary DiGA services (concierge) leveraging more key capabilities of Meditech (sales, marketing, customer success,...)	Dependency risk - Relying on partners leads to dependency, which might be risky if the partner faces issues or decides to change their strategic direction. High bargaining power, as they can just switch to a competitor.

Appendix 18: Advantages and disadvantages of buying Erectoly

Advantages	Disadvantages
Direct Control and Integration - Acquiring gives Meditech full control over the product and its development. Allowing for higher integration and deeper adaption to Meditech's needs	Market and Regulatory Uncertainties - The DiGA market, especially in the context of healthcare regulations, can be unpredictable. There's a risk that the acquisition may not yield the expected benefits due to market or regulatory changes.

Rapid Market Entry - Acquisition provides a fast track to market entry, allowing Meditech to quickly capitalize on the DiGA market without the need to build a product from scratch. - With its existing customer base, Meditech has the critical mass for positive network effects already at hand	Company Focus - Managing an acquisition can dilute Meditech's focus on its core competencies and strategic objectives - Financial and human Resources are bound to DiGA product and become unavailable for main business and other ventures
Strategic Risk - Risk (mainly financial) is minimized as it is distributed across different stakeholders - Meditech is great connected in the urology world in Germany. This will help bring the DiGA to patients on the "offline" way.	Strategic Risk - An acquisition is a long-term commitment that locks Meditech into the DiGA sector, limiting flexibility in responding to market changes. - The DiGA will not be accepted by BfArM and the whole project fails. - Eunomia's brand could be so strong, that revenue targets of new ED DiGA will not be hit.
Costs - Low upfront investments are necessary, due to negotiated profit-sharing contracts - Great synergies to realize	Costs - Much higher financial expenditure, as with the partnering approach. Also, high fix costs to run DiGA
Profits - With the acquisition, Meditech does not have to share revenue with other partners. The profit upside is significant.	Potential loss of partnering business - The acquisition will be perceived negatively by other partners. This might lead to a loss of trust and partners switching to other DiGA service provider

Appendix 19: Reasons for why both partnering and the acquisition is not possible

Reason	Explanation
Conflict of Interest	- As a DiGA manufacturer, Meditech would directly compete with its partners, at least with the other ED DiGA. This competition strains relationships and leads to mistrust. - The partnership with Eunomia is affected most and would stop immediately, as Meditech will leverage its customers to their own ED-DiGA
Market Perception and Trust	- Other partners will question their relationship with Meditech and are likely to switch to more trustworthy competitors to stop the intellectual property and knowledge flow to Meditech
Legal and regulatory considerations	- Regulators may scrutinize Meditech's dual role, especially in terms of data usage and privacy, leading to potential regulatory challenges.

Appendix 20: Five tests to evaluate a firm's resources and capabilities as a source of sustainable competitive advantage.

1. The test of competitive superiority: Whose resource truly is better?
2. The test the durability: How quickly does this resource depreciate?
3. The test of inimitability: Is the resource hard to copy?
4. The test of substitutability: Can a resource be trumped by a different resource?
5. The test of appropriability: Who captures the value that the resource creates?

Source: Collis, and Montgomery (2008)

Resources/ Capabilities list	1. Superior?	2. Durable?	3. Hard to copy?	4. Hard to substitute?	5. Can appropriate value?	Outcome
...	✗					... not competitively superior (no source of advantage)
...	✓	✗				... superior but not durable (short-lived advantage)
	✓	✓	✗			... imitable (temporary advantage)
	✓	✓	✓	✗		... substitutable (temporary advantage)
	✓	✓	✓	✓	✗	... not appropriable (expropriable advantage)
	✓	✓	✓	✓	✓	... sustainable competitive advantage

Source: Adapted with permission from Afonso Almeida Costa's slides

Appendix 21: Assessment of Meditechs key resources and capabilities as a DiGA partner as a source of sustainable competitive advantage

Resource/ activity	1. Superior	2. Durable?	3. Hard to copy?
Digital health treatments via MA	No: From a conversion and user experience point of view, the MA approach is superior. Competitors, however, are mostly doing video consultations not because they are not capable of prescribing DiGAs per MA, but because video provides a better and more reasonable basis for diagnosis.	Yes: Always in discussion which indications can be diagnosed with MA and which not, but it is a reasonable mean to issue digital prescriptions.	No: Meditech has great experience in setting up MAs, however, this is just a temporary advantage. Competition can easily copy the approach. There are no legal means to protect the design of the MAs.
Marketing and Sales expertise	Yes: At the moment, Meditech's marketing and sales expertise in the domain of DiGA is superior. They have accumulated great knowledge which is increasing with each new partner.	Yes: The expertise is rather increasing than eroding over time.	No: Competition is not sleeping and with some effort, they can either copy or adopt the marketing and sales efforts Meditech is doing.

Resource/ activity	4. Hard to substitute?	5. Can appropriate value?	Outcome
Digital health treatments via medical anamnesis	No: Online treatments based on video consultations are a great substitute.	Yes: Meditech is capable of collecting the value created with its digital health treatments. It's a core part of their main business model and can be further monetized by selling it to DiGA partners.	At most temporary advantage
Marketing and Sales expertise	Yes: Marketing and sales efforts are hard to substitute. DiGA manufacturers can do it themselves, but that's rather copying than substituting.	Yes: Same here as with the issuing of digital prescriptions: Meditech can monetize its expertise and thus capture the value of their unique resource.	Temporary advantage

Appendix 22: Assessment of Meditech's key resources and capabilities as a DiGA manufacturer as a source of sustainable competitive advantage

Resource/ Activity	1. Superior	2. Durable?	3. Hard to copy?
Market Access and customer base (critical mass to jumpstart network externalities)	Yes: Meditech has built up a large, engaged customer base and strong market access, through its men's health platform. Other DiGA manufacturers don't have complementary products or businesses and thus lack this resource.	Yes: Although switching costs are low, Meditech has built its customer base over a long time. Continuous improvements and innovations have created great brand loyalty. It seems unlikely that it can erode fast.	Yes: Unique product portfolio, great reputation and constant innovations built up large and loyal customer base. Challenging and time-consuming for competitors making it hard to replicate.
Digital health treatments to issue e-prescriptions.	Yes: Digital issued prescriptions are a necessary complement to "offline" doctors. As other DiGA manufacturers don't have this resource and must buy it externally, Meditech is clearly superior	Yes: Legal setup seems durable, and the government is in favor of digital health treatments.	Yes: They built a solid legal construct, which allows them to combine drug/DiGA manufacturing and the issuing of prescriptions. High investments in building other companies are necessary. Unlikely that competitors will copy that.
Expertise in marketing, sales and building brands, all in the niche of digital health	Yes: Meditech expertise is proven and above industry standards, as seen with PrimeMan being the 11 th best startup brand in Germany (only digital health brand in the ranking)	Yes: If Meditech keeps continuously developing and improving, Marketing and brand-building expertise will not erode but increase.	Questionable: Even though they have a great head start and several years of experience, this resource is greatly linked to talent and that might go to competition. Competitors can also learn from Meditech and copy elements.

Healthcare professional network	Yes: The network is extensive and consists of more and better-known healthcare professionals.	Yes: Although, there is some fluctuation, Meditech keeps an ongoing engagement and effort to maintain network.	Yes: Building a trusted network takes time and effort, making it difficult for competitors to quickly replicate.
Healthcare Expertise	Yes: Meditech has great experience and expertise across various health issues due to its different digital health platforms.	Yes: It is continually updated with the latest medical and regulatory developments and more products/platforms increase expertise further.	Questionable: Although time challenging and consuming, it's not impossible for competition to copy or build up over time.

Resource/ activity	4. Hard to substitute?	5. Can appropriate value?	Outcome
Market Access and customer base (critical mass to attract doctors)	Yes: Customer base, loyalty and market access cannot be substituted by other resources or capabilities.	Yes: By leveraging their customer base for cross-selling and upselling DiGAs as well as jumpstarting their DiGA to reach critical mass.	Sustainable competitive advantage
Digital health treatments to issue e-prescriptions.	Yes: There may be other means of issuing those e-prescriptions besides the medical anamnesis, but the core activity of online treatments, is not substitutable. Offline doctors can be seen as substitutes, but with that major sales channels would be lost.	Yes: This activity directly enables and with that increases sales of their DiGA and other products.	Sustainable competitive advantage
Expertise in marketing, sales and building brands, all in the niche of digital health	Yes: While marketing approaches can vary, expertise in a niche market is essential and not easily substituted.	Yes: Expertise in marketing and building brands directly contributes to brand strength and sales.	Rather temporary competitive advantage
Healthcare professional network	Yes: You need that network, besides customers, to make the DiGA work. It's not substitutable.	Yes: By leveraging this network, Meditech can increase the value of their DiGA.	Sustainable competitive advantage
Healthcare Expertise	Yes: Especially in the digital healthcare sector deep expertise is critical and not easily replaced.	Yes: This expertise underpins the credibility and effectiveness of their DiGA offerings.	Sustainable competitive advantage

Appendix 23: Considerations of why leveraging resources and capabilities is not equally possible in partnership vs. owning DiGA

Reason	Explanation
Loss of competitive Advantage	Sharing key sources of competitive advantage with partners might dilute this advantage, especially if partners become competitors in the future and gain knowledge through the shared resources or capability
Brand dilution	Meditech has carefully built trust and reputation around its brands. If the key assets are closely tied to the brand identity, sharing them with external parties can dilute the brand's uniqueness and strength.
Quality and consistency issues	Especially in the case of Meditech, where everything is built in-house and done within the Meditech ecosystem, key assets are integral to maintaining quality and consistency in products or services. Entrusting them to partners can lead to variability and a potential decline in standards.
Data security and privacy concerns	Especially in the healthcare domain, e.g. the transfer or selling of patient data raises complex data security and privacy issues, particularly with stringent GDPR.
Unwillingness to accept terms	As it is strategically a tough decision to make key resources and capabilities available to 3 rd party, Meditech will demand great service in return. Partners might not be willing to accept those.

Appendix 24: Economic example for value capture potential – ED-DiGA

	Partnership	Ownership
Orders	5.620	5.620 (Potentially x2-3 as these are only online issued prescriptions. Many patients will also visit their Urologist)
AOV	100€ (Price for e-prescription while partner was in it's 1 st year)	600€ (realistic price for a new ED-DiGA in its first year – Eudomia was >600€)
Revenue	562.200€	2.023.200 € (assuming 60% redemption rate)
Costs	95.540€ (17€ per prescription)	849,796 € (Revenue share with acquired ED-DiGA and DiGA Partner included)
PC2/EBITDA	466.660 €	1,173,404 €

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