



REPORT ON REGIONAL BENCH MARKS, WHERE "NATURAL HERITAGE" HAS BEEN SUCCESSFULLY CAPITALISED

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1. Background

The project HealingPlaces - Enhancing environmental management capacities for sustainable use of the natural heritage of Central European SPA towns and regions as the driver for local and regional development is funded by the EU Interreg Central Europe program and running between April 2019 - March 2022. The project is run by Central Mining Institute (Katowice, Poland) as a lead partner, together with 9 Central European partners from Hungary, Austria, Croatia, Italy, Slovenia and Czech Republic.

The main objective of WP2 is the practical implementation of sustainable thermal water use in SPA, understood primarily as ensuring effective & rational use of identified resources & protection of ecosystems while realizing social & economic functions.

In particular, the aim of Pilot Action 4 is to strengthen regional partnership in selected SPA regions in Upper Austria for capitalisation of location factor "natural heritage". This result will be based on in-depth analysis of economic framework & relevant future trends in health & environmental policies. A regional task force will be appointed to achieve long-term partnerships.

By elaborating regional and national benchmarks (D.T2.4.1), a good starting point should be created for processing the assignment. In this document, the existing touristic offers - where the capitalisation of the factor "natural heritage" is already used - are highlighted in order to show possible starting points and cooperation partners. In order to ensure the close connection to the SPA topic, the focus is on health tourism offers.

2. Health tourism in (Upper) Austria

The field of health tourism is methodologically difficult because the field is only limited distinguishable from other tourism areas. The "Research for TRAN Committee - Health Tourism in the EU: a general investigation" pointed out, that "Health tourism consists of medical tourism (travel for the purpose of medical treatment), wellness tourism (aiming to enhance 'health'), and spa tourism (travel to spas combining medical and health components)." This definition already points out that the elements cannot be clearly distinguished from one another, but rather overlap in terms of the continuum "illness, health, well-being" and "remedies, prevention, promotion". In addition, the exact demarcation from other forms of tourism - sports tourism, pure nature experience, etc. - is hardly possible in practice.

Nonetheless, overall health tourism can be seen as a growing market² with - depending on the source - stable to strong growth rates³ and therefore offers new growth opportunities. The importance of health tourism for the Austrian economy can be seen in different aspects: Health tourism provides added value and generates large numbers of jobs. Due to the year-round demand for health tourism offers, tourism companies can operate more independent of the seasons. The better capacity utilization in turn enables employees to be offered year-round jobs. Health

¹ https://www.europarl.europa.eu/RegData/etudes/STUD/2017/601985/IPOL_STU(2017)601985_EN.pdf, page 13.

² https://globalwellnessinstitute.org/wp-content/uploads/2018/10/Research2018_v5webfinal.pdf. page iii.

³ https://www.europarl.europa.eu/RegData/etudes/STUD/2017/601985/IPOL_STU(2017)601985_EN.pdf, page 9.





tourism is also quality tourism, with a high concentration in the commercial four-star hotel industry and offers opportunities especially for structurally weak regions.⁴



Figure 1: Global Wellness Economy, \$ 4.2 trillion in 2017⁵

In Austria there are approx. 70 health resorts, spas / thermal baths, mud baths, climatic health resorts and climatic health resorts as well as around 400 spa facilities. With about 20 million annual overnight stays - a share of approx. 15 percent of all overnight stays - they are an important factor in domestic tourism and in many cases the basis for further tourism initiatives⁶.

The long-term trend is towards a stronger specialization - from pure wellness offers to holistic concepts. In this context, it is even more important to deepen the quality of the offers. As a destination for health and wellness holidays, Austria has to offer the best conditions. As it is scores with clean environment and unique nature as well as high-quality offers of professionals and service providers.⁷

Also, in Upper Austria, health tourism has developed very positively in recent years (see tables below). In the past 5 years, health tourism communities have achieved up to 37,2 % more arrivals (Bad Ischl) and up to 22,5 % more overnight stays (Bad Hall). On average, the SPA municipalities

http://www.oehkv.at/wp-content/uploads/2019/05/Buch 2015_Doppelseiten.pdf, page 5 and Bericht über die Lage der Tourismus- und Freizeitwirtschaft in Österreich 2014, Federal Ministry of Science, Research and Economy, https://www.bmnt.gv.at/dam/jcr:6b7f3450-d4ad-4564-8f32-045d4434cedc/LAGEBERICHT%202014%20mit%20Deckblatt.pdf, page 45.

⁵ https://globalwellnessinstitute.org/wp-content/uploads/2018/10/Research2018_v5webfinal.pdf. page iii.

https://www.ots.at/presseaussendung/OTS_20140508_OTS0233/mitterlehner-gesundheitstourismus-staerken-neue-wachstumschancen-nuetzen-bild, without page and www.oehkv.at/wp-content/uploads/2019/05/Buch_2015_Doppelseiten.pdf, page 7.

http://www.oehkv.at/wp-content/uploads/2019/05/Buch_2015_Doppelseiten.pdf, page 5 and 6





all together have arrivals of + 11,1 % and overnight stays of + 7,1 %. More than 1.4 million overnight stays - that is almost 15 percent of the total overnight stays in Upper Austria - are now achieved in health destinations. 9

	arrivals 2018/2019	arrivals 2013/2014	change a bsolut	change in %	overnights 2018/2019	overnights 2013/2014	Change absolut	Change in %
in total	419 072	377 175	41 897	11,1	1 541 078	1 438 345	102 733	7,1
Bad Hall	30 525	27 336	3 189	11,7	241 551	197 263	44 288	22,5
Bad Ischl	107 108	78 042	29 066	37,2	406 811	343 535	63 276	18,4
Bad Kreuzen	27 922	24 664	3 258	13,2	60 162	52 365	7 797	14,9
Bad Leonfelden	44 160	40 780	3 380	8,3	140 147	122 496	17 651	14,4
Bad Schallerbach	98 598	107 869	-9 271	-8,6	393 043	456 495	-63 452	-13,9
Bad Zell	14 698	13 614	1 084	8,0	88 341	76 452	11 889	15,6
Feldkirchen a.d.D.	11 504	10 273	1 231	12,0	33 842	29 959	3 883	13,0
Geinberg	56 670	47 587	9 083	19,1	105 545	90 263	15 282	16,9
Schärding	27 887	27 010	877	3,2	71 636	69 517	2 119	3,0

Table 1: arrivals and overnights in "Health Municipalities" in Upper Austria, 2014-2019¹⁰, basis: touristic year = November till October

	companies 2018/2019	companies 2013/2014	change absolut	change in %	beds 2018/2019	beds 2013/2014	Change absolut	Change in %
summer season	269	259	10	3,9	8 446	8 128	318	3,9
Bad Hall	29	34	-5	-14,7	1 089	929	160	17,2
Bad Ischl	130	92	38	41,3	2 544	2 210	334	15,1
Bad Kreuzen	7	8	-1	-12,5	327	336	-9	-2,7
Bad Leonfelden	11	13	-2	-15,4	958	915	43	4,7
Bad Schallerbach	32	41	-9	-22,0	1 523	1 724	-201	-11,7
Bad Zell	13	14	-1	-7,1	476	463	13	2,8
Feldkirchen a.d.D.	22	27	-5	-18,5	297	310	-13	-4,2
Geinberg	12	16	-4	-25,0	525	533	-8	-1,5
Schärding	13	14	-1	-7,1	707	708	-1	-0,1
winter season	262	247	15	6,1	7 714	7 224	490	6,8
Bad Hall	30	34	-4	-11,8	1 093	929	164	17,7
Bad Ischl	128	88	40	45,5	2 160	1 833	327	17,8
Bad Kreuzen	7	8	-1	-12,5	276	322	-46	-14,3
Bad Leonfelden	10	12	-2	-16,7	700	661	39	5,9
Bad Schallerbach	32	38	-6	-15,8	1 523	1 700	-177	-10,4
Bad Zell	12	15	-3	-20,0	469	472	-3	-0,6
Feldkirchen a.d.D.	18	22	-4	-18,2	261	283	-22	-7,8
Geinberg	12	17	-5	-29,4	525	538	-13	-2,4
Schärding	13	13	0	0,0	707	486	221	45,5

Table 2: companies (hotels) and bed capacities in "Health Municipalities" in Upper Austria, 2014-2019¹¹; summer season = May till October, winter season = November till April

⁸ Oberösterreich Tourismus GmbH, not published materials.

⁹ Oberösterreich Tourismus GmbH, not published materials.

 $^{^{\}rm 10}$ Oberösterreich Tourismus GmbH, not published materials.

¹¹ Oberösterreich Tourismus GmbH, not published materials.





To take account of the delimitation difficulty described above, these data were simplified based on those communities that hold a recognized remedy. However, it must be kept in mind that there certainly also are travellers who, despite a health motive, spend the night in other communities and some travellers in these "health communities" have other reasons for travel. But the independent guest survey conducted by Tourismus-Monitor Austria (T-MONA) also confirms that a total of 7% of guests attribute their vacation to health and spa vacation and even 13% of guests to wellness and beauty vacation.¹²

In addition, 3,9% increases in companies (hotels) and bed capacity were recorded in the Upper Austrian health destinations. Enormous investments and accompanying quality improvements in the companies, a strong focus on the topic of "health" and the concentration of forces both in marketing and in the funding area of the state of Upper Austria show effect. In total, around 277 million euros have been or will be invested in the construction, renovation and expansion of the tourist infrastructure in the health destinations:¹³

- Kneipp establishments (Spa "Bründl" in Bad Leonfelden) + quality improvement for different Kneipp providers: 24 million Euro
- EurothermenResorts (Spas Bad Hall, Bad Schallerbach and Bad Ischl): 180 million
- New Hotel "Lebensquell" (Spa Bad Zell): 30 million
- Hotel "Villa Seilern Vital Resort" (Spa Bad Ischl): 21 million
- Health Center "Revital Aspach", new construction and expansion: 22 million Euro

In Upper Austria the offer of health services is quite wide. There are large thermal baths as well as familial health- and wellness-establishments, Kneipp specialists and other health offers, which are briefly introduced below.

3. Nature-based health offers in Upper Austria

3.1. Thermal- and healing waters

Upper Austria's thermal baths and health oases cure all sorts of medical ailments with means such as iodine, brine, sulphur, radon and thermal water. The touristic offer of the thermal baths ranges from Caribbean sandy beaches feeling in the Spa Geinberg and tropical South Sea worlds feeling in the EurothermenResort Bad Schallerbach. In the brine pools of the EurothermenResort Bad Ischl, relaxation with salt improves health. The EurothermenResort Bad Hall scores natural iodine brine as healing ingredient in the water. Another SPA - not with thermal but healing Radon mineral water - is found in Bad Zell. SPAs in Upper Austria often combine the comfort of 4 star-superiorhotels with advanced medical supervision. An overview of municipalities with water-based resources is given in the following table.

¹² Oberösterreich Tourismus GmbH, not published materials.

¹³ https://www.land-oberoesterreich.gv.at/Mediendateien/LK/PK_Sigl_3.3.2011_Internet.pdf, page 3.

¹⁴ https://www.oberoesterreich.at/aktivitaeten/ganzjaehrig/gesundheit-wellness.html, without page.

¹⁵ https://www.lebensquell-badzell.at/therapie/jungbrunnen-radon/, without page.

¹⁶ http://www.oehkv.at/wp-content/uploads/2019/05/Buch_2015_Doppelseiten.pdf, page 48 ff.





Source	Water temperature at outlet	Delivery rate	SPA
Sodium chloride bicarbonate-sulfur source	18,7°	0,96l/s	No
iodine brine	14,7°	0,14l/s	Yes
Sodium chloride sulphate-sulfur mineral water	12,4°	1,6l/s	Yes
Sodium bicarbonate-sulfur spa	37,8°C / 40,3°C	25,3 l/s / 28,7 l/s	Yes
Acrylic radon medicinal water	8,8 - 9,4°C	118,8 m ³ /24 h	Yes
Sodium hydrogen carbonate chloride thermal mineral water	35,5°	1,5l/s	No
Mineral thermal sulfur medicinal water	100°	24l/s	Yes
Calcium magnesium sulfate (hydrogen carbonate) source with bituminous ingredients	13°	5,5l/s	No
	Sodium chloride bicarbonate-sulfur source iodine brine Sodium chloride sulphate-sulfur mineral water Sodium bicarbonate-sulfur spa Acrylic radon medicinal water Sodium hydrogen carbonate chloride thermal mineral water Mineral thermal sulfur medicinal water Calcium magnesium sulfate (hydrogen carbonate) source with	Source temperature at outlet Sodium chloride bicarbonate-sulfur source iodine brine 14,7° Sodium chloride sulphate-sulfur mineral water 12,4° Sodium bicarbonate-sulfur spa 37,8°C / 40,3°C Acrylic radon medicinal water 8,8 - 9,4°C Sodium hydrogen carbonate chloride thermal mineral water 35,5° Mineral thermal sulfur medicinal water 100° Calcium magnesium sulfate (hydrogen carbonate) source with 13°	Source temperature at outlet Sodium chloride bicarbonate-sulfur source iodine brine 14,7° 0,96l/s Sodium chloride 14,7° Sodium chloride 12,4° sulphate-sulfur mineral water Sodium bicarbonate-sulfur spa 37,8°C / 40,3°C 25,3 l/s / 28,7 l/s Acrylic radon medicinal water 8,8 - 9,4°C 118,8 m³/24 h Sodium hydrogen carbonate chloride thermal mineral water Mineral thermal sulfur medicinal water Calcium magnesium sulfate (hydrogen carbonate) source with 13° 5,5l/s

Table 3: water-based health municipalities in Upper Austria with or without Spas 17

In addition to classic health tourism in the form of wellness and thermal tourism, the spa and rehabilitation segment also plays an important role. Particularly noteworthy are the services provided by healthcare companies for prevention, reintegration into the employment process, and for preventing early care and need for care. A map of SPA municipalities and municipalities with natural health-promoting substances in Austria is provided in Annex 1.

3.1.1. Molassebecken

A significant natural resource is the thermal water in the Lower Bavarian-Upper Austrian Molasse basin, which is used balneologically as medicinal water and for bathing purposes and geothermally for energy generation. The aquifer is overlaid by a sediment package up to 3000 m thick. This consists primarily of gravel, sand and clay from the Tertiary. The mighty coverage has the consequence that the new formation rate is very low and the round water occurrence is several thousand years old.¹⁹

The use of thermal water in the Lower Bavarian spa triangle Bad Füssing - Bad Griesbach - Bad Biernbach and in the Upper Austrian Innviertel in Bad Schallerbach, Altheim and Geinberg has

¹⁷ http://www.oehkv.at/wp-content/uploads/2019/05/Buch_2015_Doppelseiten.pdf, page 48 ff.

¹⁸ http://lifestyleundreisen.at/gesundheitstourismus-in-oesterreich/, without page.

¹⁹ https://www.land-oberoesterreich.gv.at/files/publikationen/gtw_grundsatzpapier2012.pdf, page 7.





developed into an important economic factor. This intensive use of water resources in recent decades has led to considerable pressure drops. Management measures were necessary in order to secure the existing use and to enable future use to an extent that is economically justifiable²⁰. The increasing number of applications for (including geothermal) use of the thermal water made it necessary to consider the water management issues to a greater extent than before.

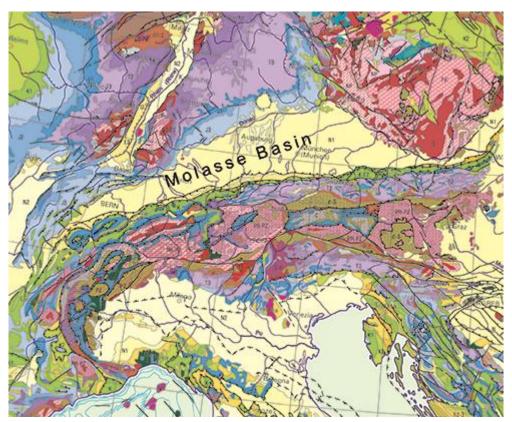


Figure 2: Geological overview of the Molasse Basin²¹

For this reason, the "Thermal Water expert group" was set up. The members of this group are appointed by the German and the Austrian side, and include experts from public institutions such as the Federal Ministry, the county or academic institutions.²² The central task of the expert group was on the one hand the set up and the technical support of investigations and studies to be carried out on the thermal water aquifer and on the other hand the preparation of proposals on how the cross-border thermal water resources should be managed sustainably.²³ These studies

https://www.bmnt.gv.at/dam/jcr:9ac1f98f-cd88-4a05-94b8-02b123f09bb6/Thermalwasservorkommen 20Molassebecken 20Hydrogeologisches 20Modell 20und 20Thermalwasser Str mungsmodell 202002.pdf, page 6.

²¹ https://www.en.palaeontologie.geowissenschaften.uni-muenchen.de/forschung/forsch_gebiete/molasse1/index.html, without page

²² https://www.land-oberoesterreich.gv.at/files/publikationen/gtw_grundsatzpapier2012.pdf, legal notice.

²³ https://www.zobodat.at/pdf/BerichteGeolBundesanstalt_92_0014-0017.pdf, page 14f.





lead to a better understanding of the thermal-hydraulic relationships in the examined area and provided valuable information on the operation of the systems.²⁴

In order to ensure the sustainable management of this thermal water deposit on both sides, Bavaria and Austria developed a common protection and use strategy and set it down in policy documents in March 2002. This ensured a uniform procedure across borders while adhering to the state of the art. Topics such as the water management requirements for thermal water use, design parameters for the use of the systems, principles for the application, care and maintenance of the systems, requirements for the approval process and principles for information exchange were processed.²⁵

3.2. Peloid applications

The peloids are sediments of organic and / or inorganic origin that have arisen from geological and geological-biological processes. These sediments are either already fine-grained in their natural form or they are brought into a fine-grained state by certain processes. In this form, they are then used in applications for humans. The term peloid for these materials, which differ in terms of their origin, means that these are materials that are used therapeutically. Depending on their origin and composition, the peloids are generally distinguished in peat (high peat, low peat, peat soil), sludge (silt, mineral mud, mud) and healing earths. An overview of municipalities in Upper Austria with peloid sources is given in the following table.

Municipality	Type of peloid	peloid	In use?
Aigen-Schlägl	organic	healing moor	yes
Bad Leonfelden	organic	healing moor	yes
Bad Wimsbach Neydharting	organic	healing moor/peat	yes
Eferding	inorganic	narl clay	no
Mondsee	organic	healing moor	no
Gmös (Laakirchen)	organic	healing moor	yes
Liebenau	organic	healing moor/peat	no
Windischgarsten	organic	healing moor	yes

Table 4: municipalities with peloid sources in Upper Austria (in use or not in use)²⁶

The recognition of a peloid and the way it is used on humans are subject to legal regulations (Oö. Heilvorkommen- und Kurortegesetz = provincial legislation of Upper Austria).²⁷ These regulations state that a so-called full peloid analysis must be carried out before the recognition, in which the thermophysical properties, the chemical composition and the bacteriological composition are

²⁴ https://www.land-oberoesterreich.gv.at/files/publikationen/w_Thermal_KB.pdf, page 1.

²⁵ http://www.fcwe.de/files/vortraege_kongress03/vollhofer.pdf, page 9ff.

²⁶ http://www.oehkv.at/wp-content/uploads/2019/05/Buch_2015_Doppelseiten.pdf, page 131 and 139.

²⁷ https://www.ris.bka.gv.at/GeltendeFassung/LrOO/10000048/O%c3%b6.%20HKG%2c%20Fassung%20vom%2011.02.2020.pdf, § 1 and § 4.





examined. Based on the full peloid analysis, a balneomedical report is then drawn up, in which the indications and contraindications are defined. For the recognition of a peloid, it is needed, that:

- it is available in a deposit sufficient for the intended use,
- it has such physical, physical-chemical or chemical properties as they are necessary for the intended use, and
- it exerts or is expected to have a scientifically recognized healing effect without changing its natural composition.

In contrast to medicinal waters, whose balneotherapeutic application is based on the chemical ingredients, the thermophysical properties play a role in the peloids, which are described with terms such as heat retention, specific heat and thermal conductivity. Peloids with a pulp-like consistency, usually in the form of peloid packs, are used for therapeutic use. Peloids have a high specific heat, a low coefficient of thermal conductivity and, accordingly, high heat retention. The consequence of this is that peloids can be applied to the body surface at a significantly higher temperature than water. The low heat conduction results in a slow and gentle heat transfer from the peloid to the body surface and the layers underneath. During the therapeutically relevant time of approximately 20 minutes, the temperature in the peloid is reduced only very slightly. The special thermophysical properties of the peloids have been known for a long time. Their importance as the basis of the balneotherapeutic effectiveness of the peloids is undisputed.²⁸

3.3. Kneipp therapy

Kneipp Therapy means Activation of heat production by cold stimulus. This concept may not sound obvious at first, but after a cold stimulus, the body activates heat production and blood circulation with all its strength. This is not an antiquated finding, but is still highly topical: Especially in the modern environment, the body lacks stimuli and challenges. In everyday monotony, he stops his regulatory functions. This makes it susceptible to all types of malfunctions. A targeted cold stimulus brings movement into the system²⁹.

Kneipp philosophy is based on the "hydrotherapeutic cold-water therapy ", created of Pfarrer Sebastian Kneipp (1821 - 1897, Bad Wörishofen in Germany) and is linked with Christian rules and spirit. He wanted to strengthen the weak city people with natural stimuli such as movement, light, sun, cold and fresh air. Essentially, Kneipp was primarily concerned with preventing diseases: "Prevention is better than cure", because "everyone wants to stay healthy and live long, but very few do anything about it." The approach is based on 5 pillars: ³⁰

Water

Treading water is probably the most famous Kneipp treatment. However, it is less well known that 80% of the more than 140 different water therapies are applications with warm water. In 2015, the German UNESCO Committee even decided to recognize "Kneippen (water-treading) as traditional knowledge



http://www.oehkv.at/wp-content/uploads/2019/05/Buch_2015_Doppelseiten.pdf, page 115.

²⁹ https://www.phytodoc.de/naturheilkunde/naturheilverfahren/kneipp-therapie

³⁰ https://www.kneipp.com/us_en/kneipp-magazine/water-cures/ and https://www.tem-zentrum.at/blog/blog-tem-institut/blog-detail/das-5-saeulen-programm.html





and practice according to the teachings of Sebastian Kneipp" as a form of intangible cultural heritage.

Plants

Kneipp viewed plants and herbs as celebrated gifts offered by nature, brimming with innate benefits and functions to generate good health. Herbs in the form of teas, bath additives and wrap additives are used effectively in Kneipp therapy.



Exercise

Today, enough research and studies have been done that it is clear that exercise and sport are good for the health. Sebastian Kneipp established Exercise as one of his key pillars to living an ideal lifestyle over 125 years ago. Regular exercise is the basis for a healthy body, an attentive mind and a balanced soul.



Nutrition

As nutrition creates the fuel for the body to efficiently operate it can be seen as the foundation for a healthy and active life. Healthy, sensible eating can lead to a new lifestyle and a unique body feeling with pleasure in.



• Balance

Balance is an essential pillar in the Kneipp philosophy as it combines all of the learnings from the other pillars to contribute to a healthy, sustainable lifestyle. The interaction of all pillar elements keeps the body and spirit in equilibriuma complete mind, body, and soul approach.



Today, as part of the "Traditional European Medicine", the approach is experiencing a new, more modern touch. In contrast to traditional Chinese medicine, traditional European medicine summarizes a number of treatment methods that have emerged in the European cultural area. It is a not clearly defined approach which is rather attributed to alternative or complementary medicine.

The key player of Kneipp therapy in Upper Austria is the congregation of Marienschwestern (Sisters of Mary), that owns and operates two Kneipp Cure Centers³¹:

- Kneipp Kuranstalt Bad Kreuzen
- Kneipp Kuranstalt Bad Mühllacken

In some SPAs Kneipp Therapy/Traditional European Medicine is closely linked with other therapies. Some elements of this approach get more and more important for physical and psychical prevention, cure and rehabilitation programmes.

³¹ https://www.tem-zentrum.at/, without page.





3.4. Climate therapy - climatic health resorts

In addition to medicinal waters and medicinal gases, climatic factors that are beneficial to the health are also legally recognized as natural healing resources. The terms "Climatic SPA" (Luftkurort) or "Healthy Climate Municipality" (heilklimatischer Kurort) are used in this context. While "Healthy Climate Municipality" have local climatic factors that promote the healing of certain diseases, climatic SPAs "only" have factors that promote the maintenance or recovery of health. ³²

In principle, climatic therapy can either be at rest, e.g. in the form of a lying cure or in connection with muscle work - traditionally known as terrain cure. Climatic therapy at rest requires therapeutically effective climatic factors and is therefore primarily considered for climatic health resorts. Terrain cures, on the other hand, represent a current option of therapy in the climate, as can be practiced in climatic health resorts. The term terrain cure refers to those types of exercise outdoors that primarily affect the extra muscular factors of work (circulation, metabolism, etc.). The desired therapeutic purpose is achieved by long-term exposure to low intensity or by exposure according to the interval principle. Terrain cure differs from conventional gymnastics outdoors or in the hall through the conscious use of climatic stimuli, from sports training through the much lower intensity. This means that a heart rate of 180 minus age is reached 3-4 times a week for 20-40 minutes. Terrain cures are used analogously as therapeutic agents for sick people. Legally recognized climatic health resorts in Upper Austria are listed below:

Municipality	Classification (rough)	Sea level
Aspach	bland climate in summer, stimulating climate in other seasons	445m
Bad Goisern	slightly stimulating climate	500m
Bad Ischl	subalpine climate with slight irritant factors	469m
Gallspach	bland climate	365m
St. Wolfgang	bland climate in summer, stronger stimulating stimulus factors in winter	550m
Weyer	Gentle climate in summer, mild climate during the transitional periods	393m
Windischgarsten	Mild climate, "climate swing"	601m
Wolfsegg	Gentle climate with slight irritant factors	638m

Table 5: climatic health resorts in Upper Austria³⁴

^{32 &}lt;a href="https://www.ris.bka.gv.at/GeltendeFassung/LrOO/10000048/0%c3%b6.%20HKG%2c%20Fassung%20vom%2011.02.2020.pdf">https://www.ris.bka.gv.at/GeltendeFassung/LrOO/10000048/0%c3%b6.%20HKG%2c%20Fassung%20vom%2011.02.2020.pdf, § 9.

³³ http://www.oehkv.at/wp-content/uploads/2019/05/Buch_2015_Doppelseiten.pdf, page 132.

³⁴ http://www.oehkv.at/wp-content/uploads/2019/05/Buch_2015_Doppelseiten.pdf, page 137.





3.5. Woods and forests - (new?) recreational areas

Wooden areas cover a high portion of Upper Austrian landscape and wood is very important for the capitalisation basis, not only in respect of the raw materials for handicraft, industrial and manufacturing production but also for sustainable development of leisure services, health offers, outdoor activities. Within the last decades wood has also been recognized as "natural SPA". To stay in the wood for a certain amount of time has positive effects on the health of people. This result has been determined in scientific projects in Upper Austria - in our healing-places pilot action region. Therefore, Martin Spinka, a specialist in traditional European medicine, carried out a twelve-month medical field study on the effects of forest air bathing in the heart of the Mühlviertel region. It is based on the development of relevant measurements from 20 test subjects who were in the forest for at least four hours a week. Based on this expertise from Upper Austria and abroad, new touristic and health offers and especially protected wooden areas, have been developped in Upper Austria (eg. "Waldluftbaden", "Waldness", "Naturpark Rechberg", "Nationalpark Kalkalpen").

In this context, the term "forest bathing", a wellness therapy from Japan, has spread in recent years. 'Shinrin yoku', as it is called there, includes the conscious perception of the forest during a certain length of stay and has been practiced since the 1980s. Various studies have proven the positive effects of forest bathing on humans. The therapeutic approach is said to lower blood pressure and cortisol levels, as well as calm nerve activity. In addition, forest bathing reduces stress and prevents depression. Forest Bathing also promotes the formation of natural killer cells that fight infected cells or tumor cells. ³⁶

There are also developments in this area in the Mühlviertel. The health effects of Mühlviertel forest air bathing have been researched and tested. The forest air bathing health tour is a circular route of around 170 km through the Mühlviertler Kernland region from the Maltsch in the north to the confluence of the Feld- and Waldaist in the south. This is followed by 33 local forest air bathing trails in 12 certified forest air bathing communities.

4. Summary

The literature shows a trend towards the guests' desire for natural experiences and the increasing value of health issues.³⁷ Trends such as demographic change, increasing requirements and digital living environments (see also D.T1-3.4) sharpen the focus on topics such as provision, relaxation and well-being.³⁸

³⁵ https://kurier.at/chronik/oberoesterreich/vier-stunden-pro-woche-im-wald-baden/400592036, without page.

https://www.umweltnetz-schweiz.ch/themen/gesundheit/2553-%E2%80%9Aforest-bathing%E2%80%98-der-bewusste-waldspaziergang-als-therapie.html,, without page.

³⁷ E.g. https://www.zukunftsinstitut.de/artikel/der-wichtigste-megatrend-unserer-zeit/, without page;
Baumbach, I.: Was erwartet der Gast von morgen? Trends in Tourismus und Freizeitgestaltung und wie man sie rechtzeitig erkennt, 2007, page 133 and 153 and https://www.wko.at/branchen/tourismus-freizeitwirtschaft/hotellerie/130318_Klimawandel_u._Tourismus_in_Oe._2030_Kurzfassung.pdf, page 14.

³⁸ https://www.europarl.europa.eu/RegData/etudes/STUD/2017/601985/IPOL_STU(2017)601985_EN.pdf, page 36.





Upper Austria offers a good starting point for a health tourism offer. Also, the strategy of Oberösterreich Tourismus GmbH confirms that health, well-being and experiencing nature are among the strongest motives of Upper Austrian guests.³⁹ The thermal baths in the county are based on different remedies and enable a wide range of applications. In addition, they target different target groups (families, cure tourism, etc.) and thus achieve a differentiated offer design.

Nevertheless, it should be kept in mind that the health guest is demanding and has high expectations of the performance of a thermal spa. The study "Health Tourism in Austria 2014" lists the following key challenges for the health tourism market:⁴⁰

- **Specialization and profiling:** The categorization of destinations and companies according to wellness, health and medical tourism is currently not stringent. Comprehensible criteria for the allocation to the individual offer areas support tourism marketing and enable guests to make better vacation choices based on their specific needs.
- Quality assurance: Process-oriented quality management in connection with medical care is essential when using health tourism services. The question of quality management is also closely linked to the development of offers.
- Integration of prevention and tourism services: Close cooperation between tourism and the health and social insurance system can help to position health tourism offers better and more affordably. Especially since these often are financed by consumers through private supplementary insurances or the travel budget.
- Regional cluster formation: The further development of tourism offers in health tourism as well as the increasing demand for wellness, medical wellness and medical tourism make a higher-level strategy and closer cooperation with the "second health market" (e.g. nutrition, coaching, training planning) necessary.

Health awareness among the population is increasing and many guests are willing to finance applications beyond the health insurance benefits, but the demands of consumers have also increased. An ongoing improvement of the quality offered and an expansion of the range of offers can help to ensure that thermal spas can operate economically success also in future. The trend already is increasingly towards more professionalization and specialization, health and nature are no longer a "by-product" but rather the main product in specialized companies.⁴¹

(Strategic) Regional partnerships/regional cluster formation seem to be a good opportunity to expand the range of offers and thus strengthen the position in the market. The pilot action of PP4 builds on this consideration and tries to strengthen the networks in Upper Austria and thus show new market segments for thermal spa operators. Within the pilot action, the aim is to link the spa and the forest offers more closely in order to clearly position the thermal providers on the market and to offer guests a more holistic holiday experience.

³⁹ https://www.oberoesterreich-tourismus.at/fileadmin/user_upload/oberoesterreich-tourismus/Bilder/B2B/LTO/Dokumente/Oberoesterreich_Landes-Tourismusstrategie_2022_web.pdf, pages 46-47.

⁴⁰ Donau Universität Krems, Prof. Haber: https://docplayer.org/10747501-Gesundheitstourismus-in-oesterreich-2014.html, page 46 and Bericht über die Lage der Tourismus- und Freizeitwirtschaft in Österreich 2014, Federal Ministry of Science, Research and Economy, https://www.bmnt.gv.at/dam/jcr:6b7f3450-d4ad-4564-8f32-045d4434cedc/LAGEBERICHT%202014%20mit%20Deckblatt.pdf, page 45f.

⁴¹ Bericht über die Lage der Tourismus- und Freizeitwirtschaft in Österreich 2014, Federal Ministry of Science, Research and Economy, https://www.bmnt.gv.at/dam/jcr:6b7f3450-d4ad-4564-8f32-045d4434cedc/LAGEBERICHT%202014%20mit%20Deckblatt.pdf, page 45.





Annex 1 Map of Austria: Spa municipalities and municipalities with natural health-promoting substances

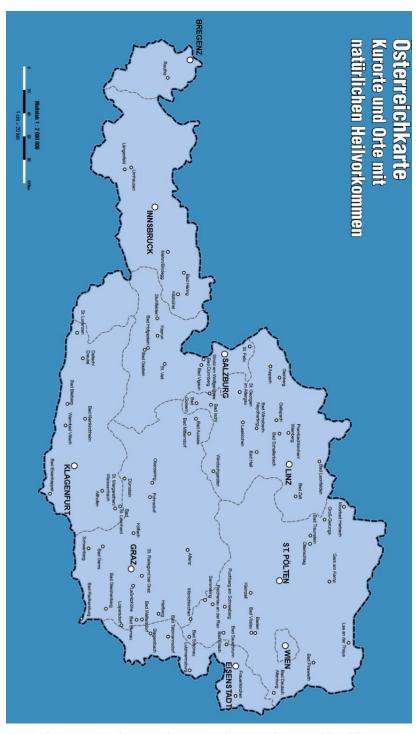


Figure 3: Spa municipalities and municipalities with natural health-promoting substances⁴²

⁴² http://www.oehkv.at/wp-content/uploads/2019/05/Buch_2015_Doppelseiten.pdf, page 3.