



Stories of Cooperation: Sustainable valorization of natural health resources

02/10/2018, Schloss Leopoldskron

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PARACELSUS
MEDIZINISCHE PRIVATUNIVERSITÄT



Cooperation as game changer in peripheral alpine areas Project chains to foster Evidence Based Health Tourism



Innovation and Technology
Transfer Salzburg ITG



Alpine Health Region SalzburgerLand

High quality tourism

Alpine assets &
Glocalization

Evidence-based Health Tourism

Qualified Jobs &
Strategy for lack
of qualified staff

Modernization of hardware

Cross sectoral innovation
New value chains



EU-Interreg ITAT „Trail for Health“

EU-Interreg ITAT „WinHealth“

EUSALP ARPAF „HEALPS“

K-Net Water competence Pool

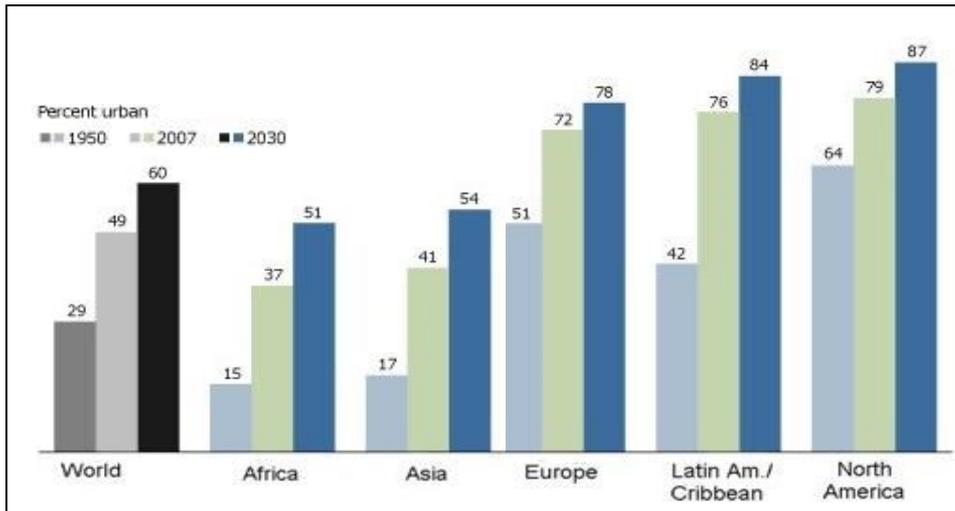
Austrian Innovation Price Tourism 1st price „Cooperations“

EU-RegioStar Finalist

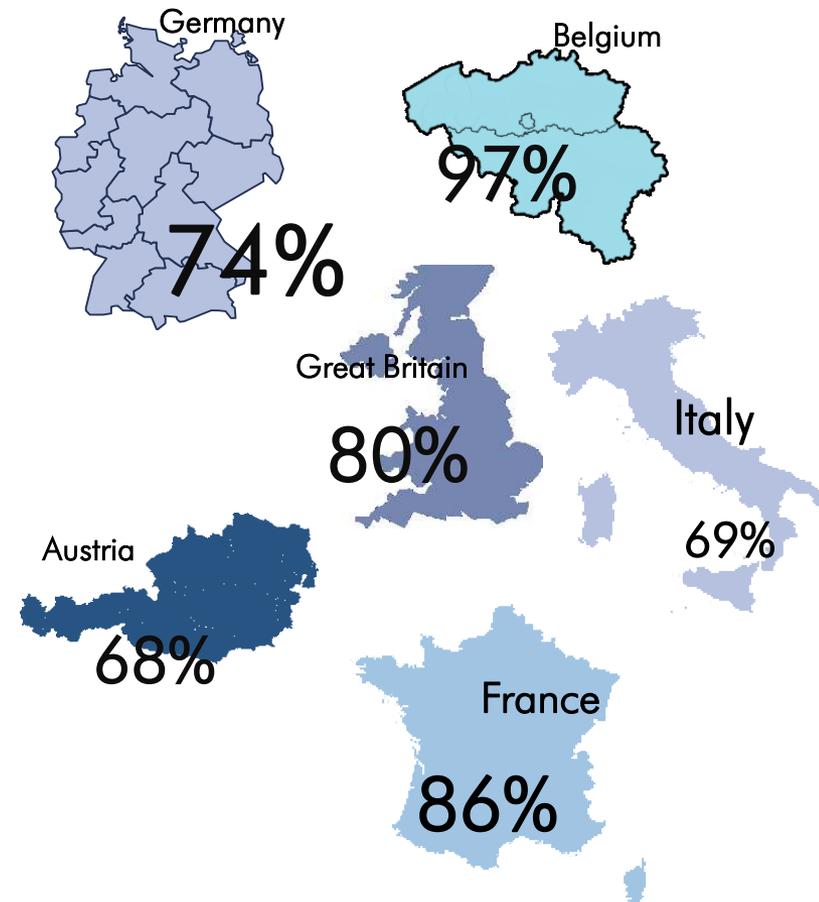
Austrian Lighthouse Project in Tourism 1st price

Urbanization is a major global trend

Degree of urbanization (percentage of urban population in total population) globally and per continent



Degree of urbanization in selected source markets



Urbanization is a global trend:

- 1940 19 % of the world's population was urban
- 2014 54 % of the world's population residing in urban areas in 2014
- by 2050, 66 % of the world's population is projected to be urban

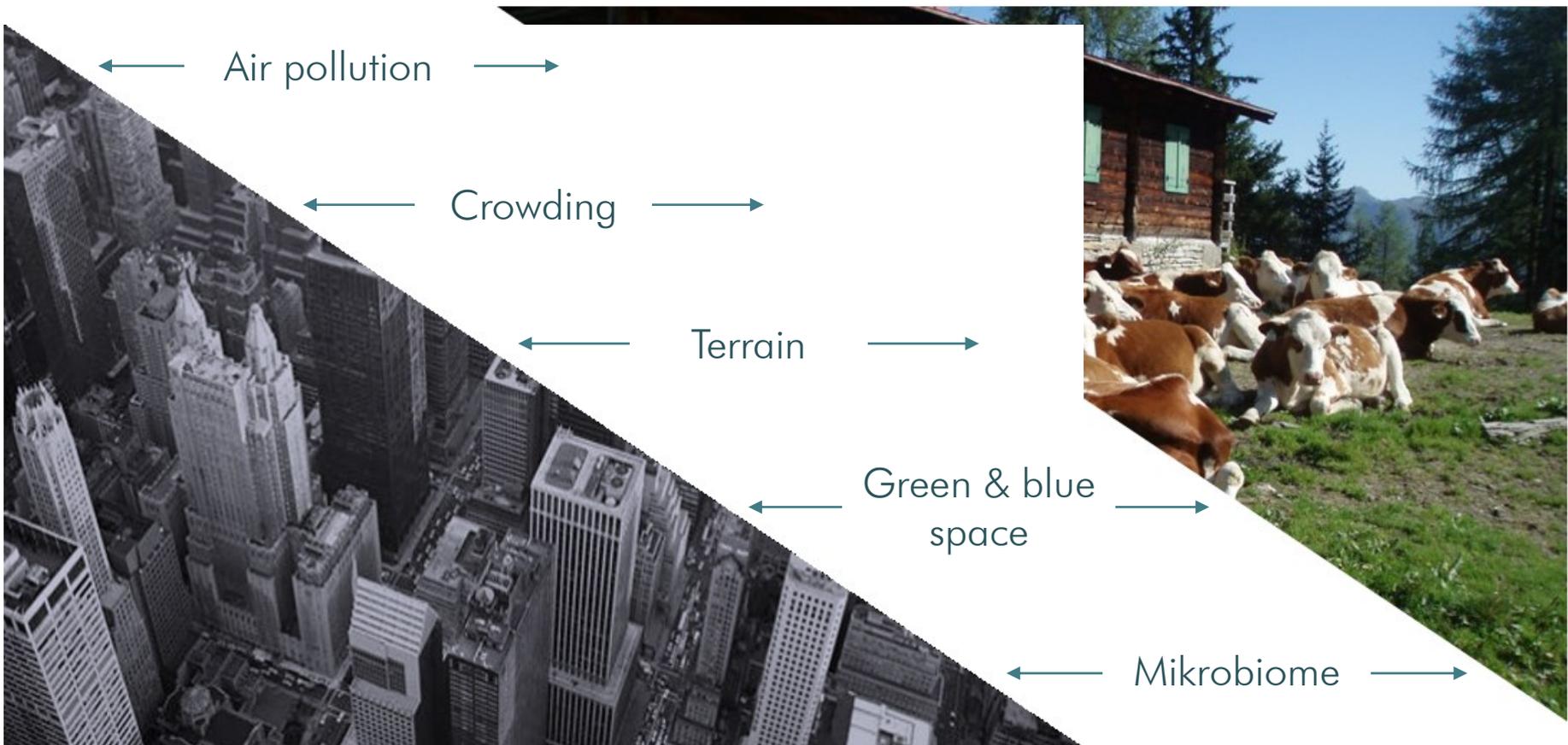
Arch Intern Med. 2012 Mar 26;172(6):494-500. doi: 10.1001/archinternmed.2011.2174.

Sitting time and all-cause mortality risk in 222 497 Australian adults.

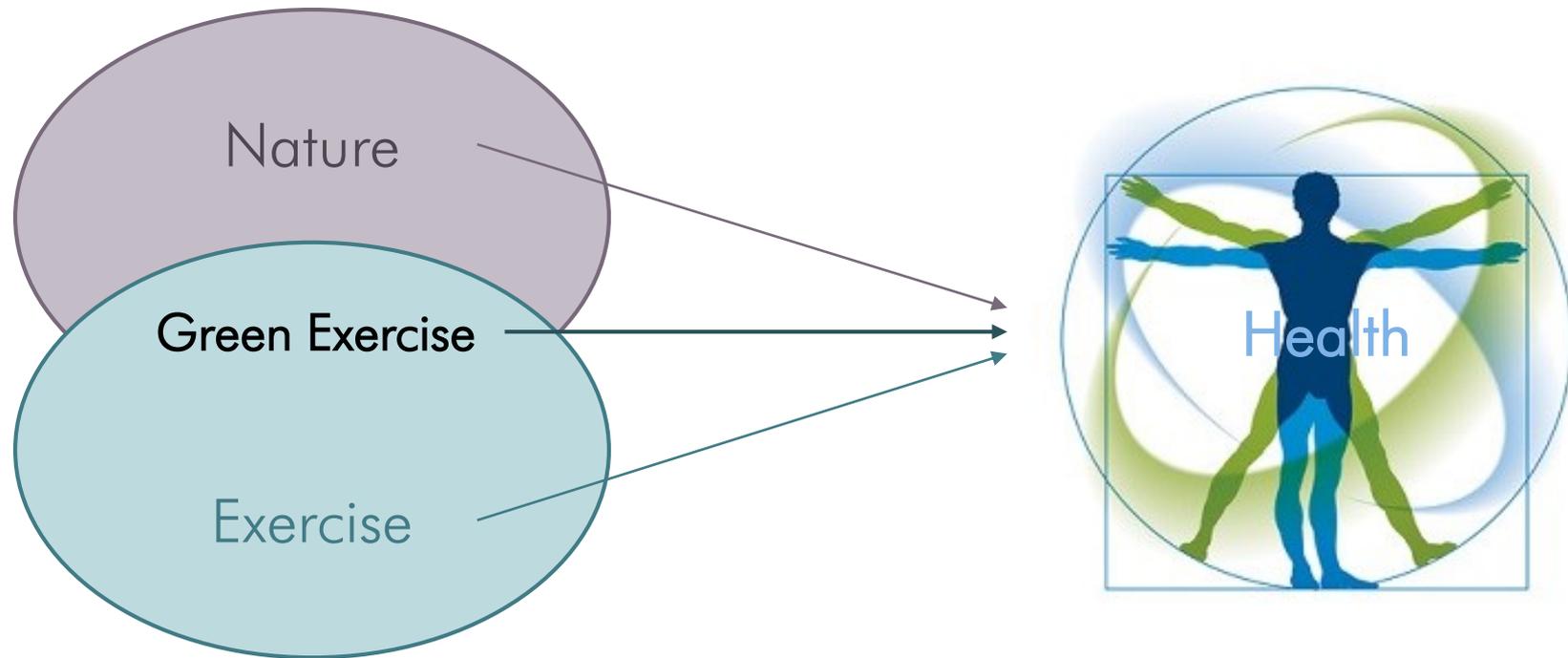
van der Ploeg HP¹, Chey T, Korda RJ, Banks E, Bauman A.



Modern urban societies increase the need for recreation and preference for nature



Green Exercise



Regarding the growing scientific evidence of nature's positive effects on human health and well-being, **natural resources build an excellent base for the development of evidence-based health tourism**

For Exercise, Nothing Like the Great Outdoors

Phys Ed

By GRETCHEN REYNOLDS JUNE 28, 2017

The New York Times



Long walks can improve moods and reduce anxiety, but the benefits may be greatest if the walks take place outdoors rather than in a gym, according to a new study by researchers in Austria. And while the Alps may be a particularly fine place to hike, a vigorous walk in the woods or paths near home may provide the mental boost we need to keep us moving.

 **PLOS** | ONE

Citation: Niedermeier M, Einwanger J, Hartl A, Kopp M (2017) Affective responses in mountain hiking—A randomized crossover trial focusing on differences between indoor and outdoor activity. *PLoS ONE* 12(5): e0177719. <https://doi.org/10.1371/journal.pone.0177719>



International Journal of
*Environmental Research
and Public Health*

Article

A Randomized Crossover Trial on Acute Stress-Related Physiological Responses to Mountain Hiking

Martin Niedermeier^{1,*}, Carina Grafetstätter², Arnulf Hartl² and Martin Kopp¹

 **frontiers**
in Psychology

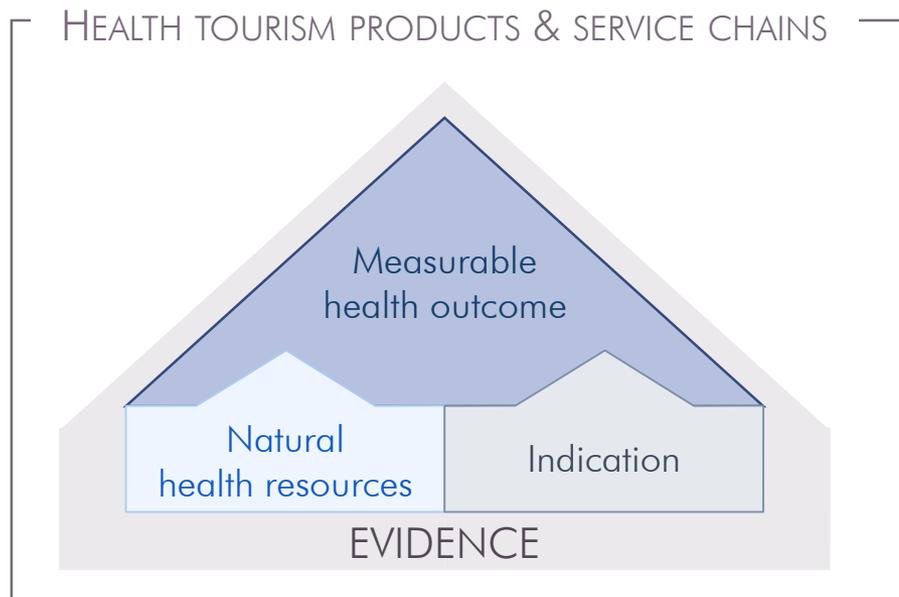
ORIGINAL RESEARCH
published: 20 July 2017
doi: 10.3389/fpsyg.2017.01237

Prevalence of Mental Health Problems and Factors Associated with Psychological Distress in Mountain Exercisers: A Cross-Sectional Study in Austria

Martin Niedermeier^{1*}, Arnulf Hartl² and Martin Kopp¹

Outdoor athletes have less mental health problems than Europeans (14%: 38%)

Alpine Health Region Salzburg



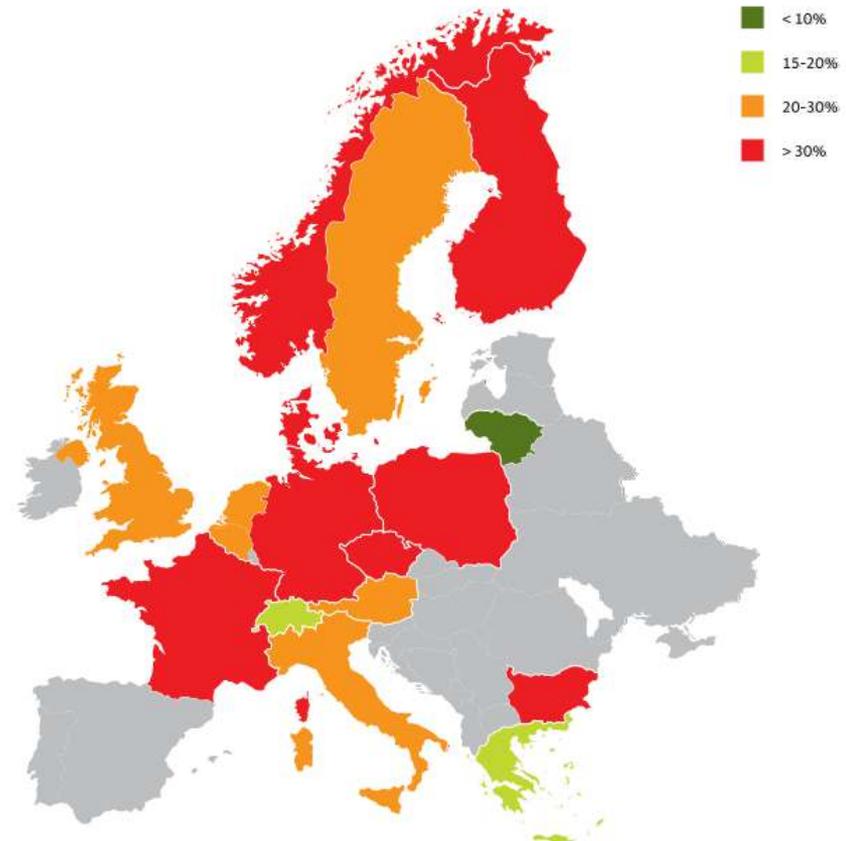
→ Strong focus on **location-bound natural resources** as basis for health tourism development and USP for specific destinations



Relevance of allergy and asthma



- Worldwide, the number of allergy sufferers is increasing due to urbanization
- Currently one in three Austrians / Germans is allergic.
- 11% of children have allergic asthma / 6% of adults At the age of seven,
- 15 percent of all children are affected By the year 2015, half of all Europeans will be allergic to allergy
- 5% annual increase Asthma - doubling in the last 15 years

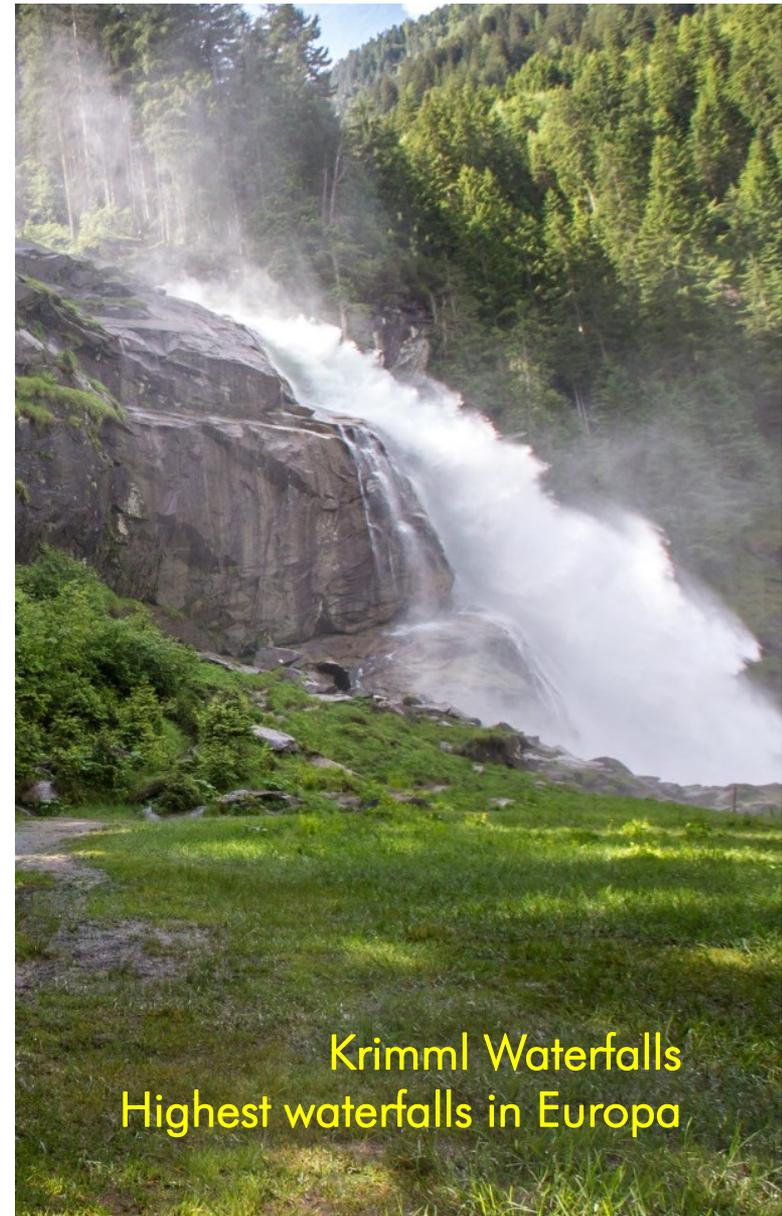


Waterfall aerosols

High concentration of negatively-charged, finely atomized breathable water fragments

- The droplet size is 200 times smaller than the droplets in an emergency asthma spray
- The miniscule size allows them to penetrate deep into the respiratory tract and to develop an immune modulatory effect

(Kolarz, Hartl et al., Atmospheric chemistry and physics, 2012)



Krimml Waterfall: approved remedy against Allergy and Asthma ICD-10:J45

- The Krimml waterfalls are a medical remedy for allergies and asthma
- Therapy on health certificate since 2015
- They induce a „balancing“ immune response and sustainably improve functional, clinical and immunological parameters of allergic asthma“



Journal of Asthma, 2012; 49(8): 830-838
Copyright © 2012 Informa Healthcare USA, Inc.
ISSN: 0277-0903 print/1532-4303 online
DOI: 10.3109/02770903.2012.705408

informa
healthcare

PHARMCOTHERAPY

Effects of Ionized Waterfall Aerosol on Pediatric Allergic Asthma

MARTIN GAISBERGER, M.S.,¹ RENATA ŠANOVIĆ, PH.D.,¹ HEIDEMARIE DOBIAS, PH.D.,¹
PREDRAG KOLARŽ, PH.D.,² ANGELIKA MODER, PH.D.,¹ JOSEF THALHAMER, PH.D.,³
AMINA SELIMOVIĆ, M.D.,⁴ ISIDOR HUTTEGGER, M.D.,⁵ MARKUS RITTER, M.D.,¹ AND
ARNULF HARTL, PH.D.^{1,*}

Regional value chains in peripheral rural areas

HOHE TAUERN
HEALTH



Holidays for allergic and asthmatic guests

HOHE
TAUERN



DIE NATIONALPARK-REGION



Accommodation & Food: Certified HTH Hotels

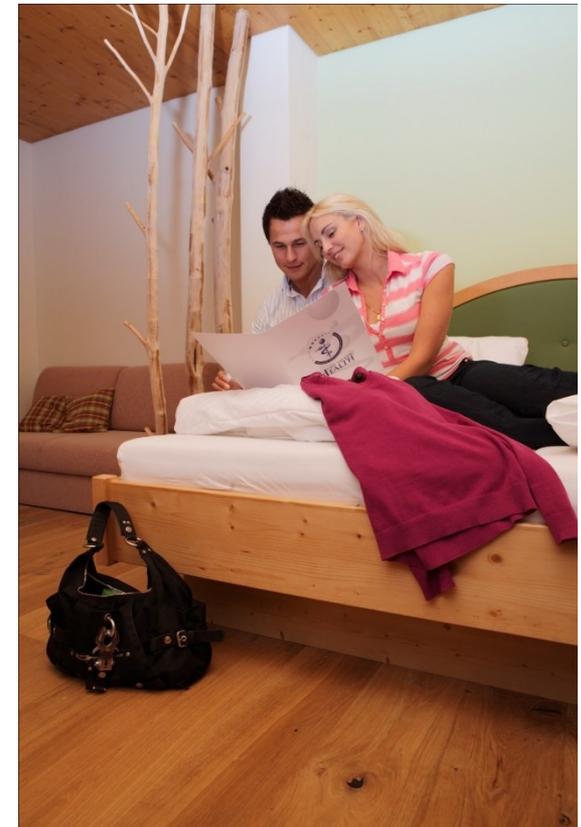


Hohe Tauern Health allergy-friendly partner hotels

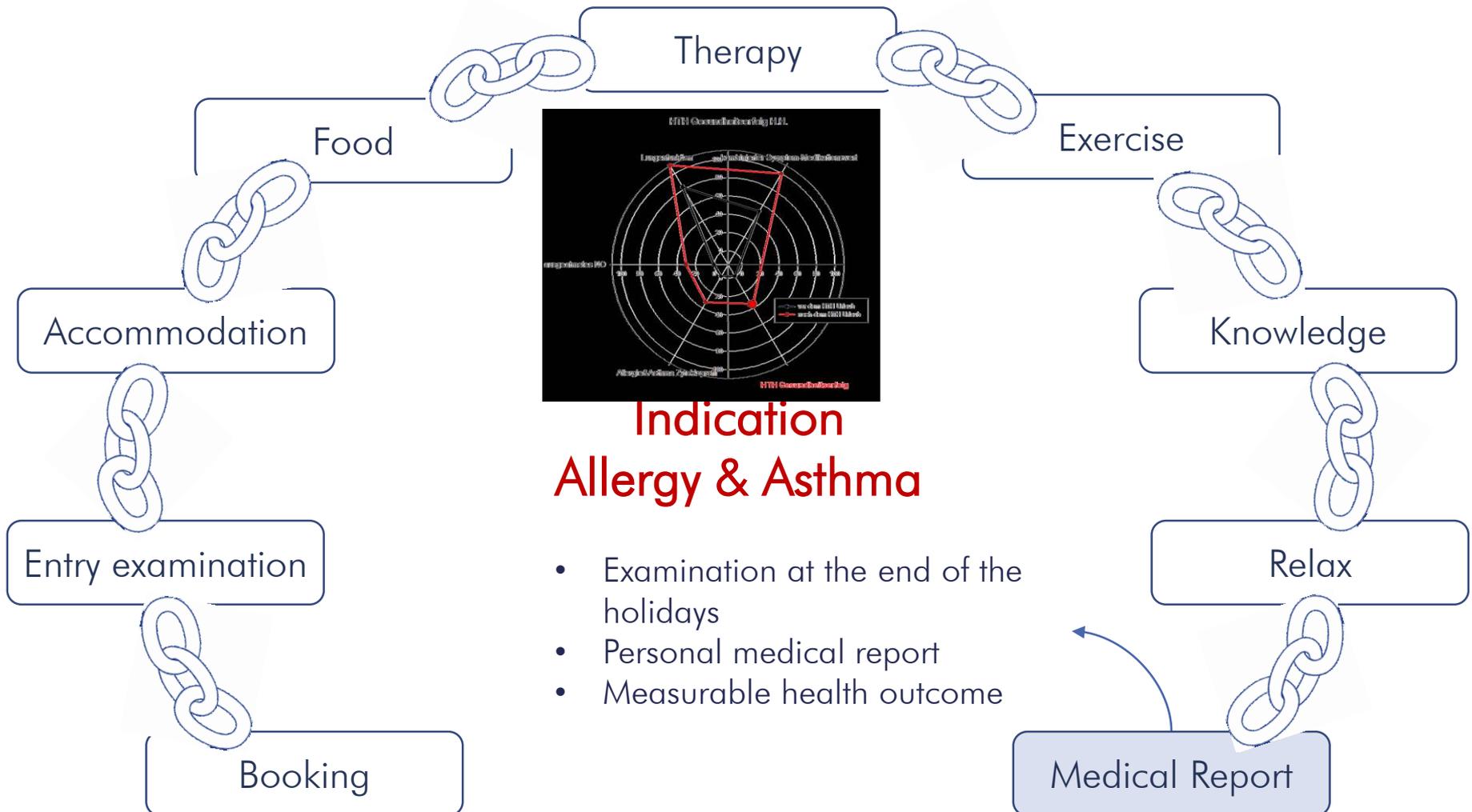
- evidence-based quality criteria
- Certification & re-certification every 2 years (PMU)

- concentration of fine dust and the eight most important indoor allergens is regularly monitored
- fine dust concentration has to be below $20 \mu\text{g} / \text{m}^3$ PM-10 (recommended max. indoor values in Austria and Germany: $80 \mu\text{g} / \text{m}^3$ PM-10)

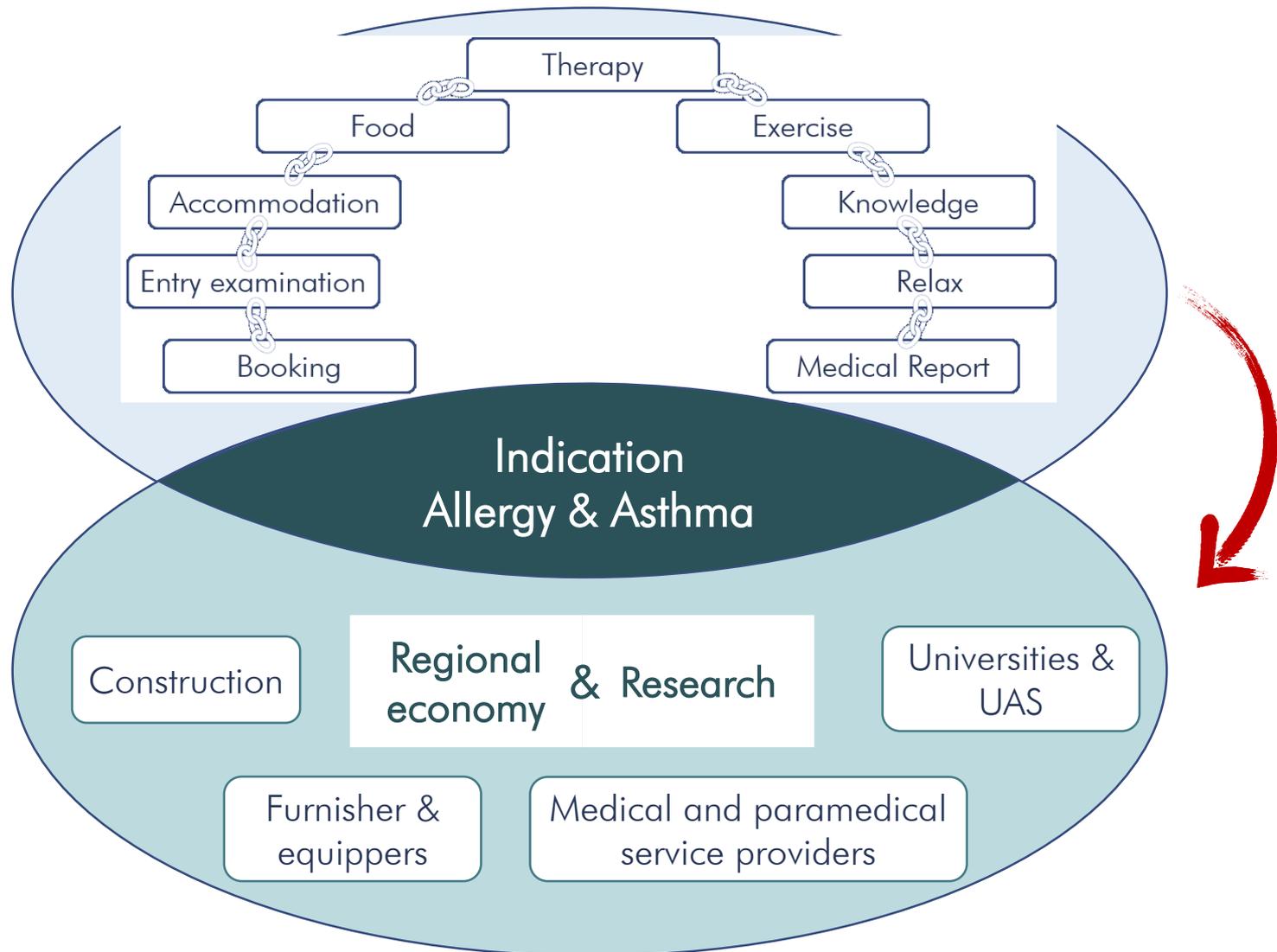
- Housekeeping has to be adapted to the needs of allergic people (e.g. special HEPA filter vacuum cleaner)
- Hotel staff has to participate in regular training to be re-certified (e.g. training on hygiene regulations, dietetic know-how for kitchen staff, responding to special needs of allergic and asthmatic guests)



Hohe Tauern Health Value Chain



Hohe Tauern Health – Cross-sectorial innovations



Triggering of research and cross-sectorial innovations

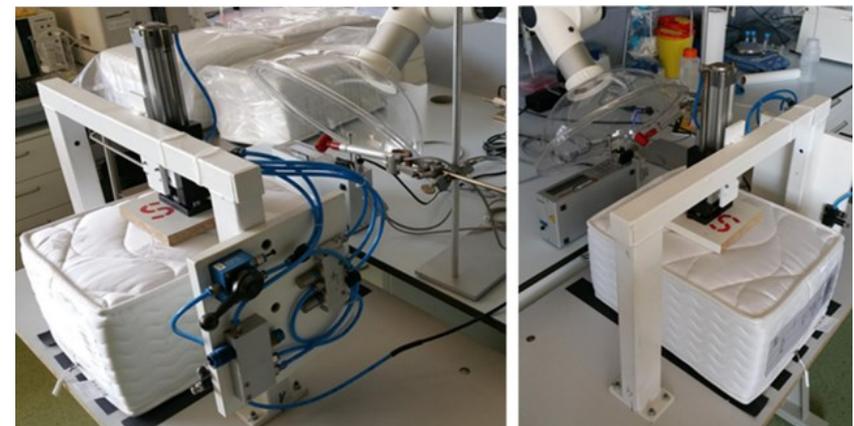
Allergologic and construction-related medical characterization of different wooden constructions



Triggering of research and cross-sectorial innovations

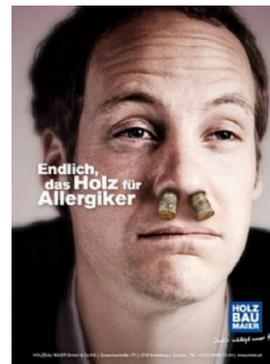
Sleeping systems

- Business partner: Elastica Sleeping systems, Salzburg
- Development of hypoallergen mattresses based on 3 research projects
- 1 double-blind randomized controlled clinical study in *Hohe Tauern Health Hotels* focusing on sleep quality; test persons: people with allergic rhinitis due to house dust mite allergy



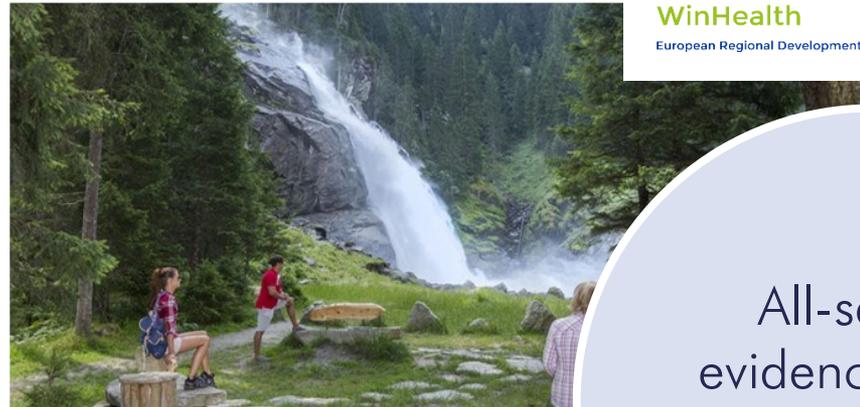
Impact on tourism & regional development

- Officially recognized as **natural healing resource** (2015) → health insurance
- Nationally & **internationally recognized** (e.g. Regiostar finalist 2012, 1st Price Austrian Tourism Award 2016)
- **Creation and higher qualification of jobs** (e.g. physiotherapists specialized on breathing techniques, kitchen staff specialized on allergies)
- Higher **satisfaction**, higher **willingness** to return to the destination & **higher rates of recommendation** among HTH guests
- **21 % increase** in the number of **overnight stays** during summer season (2010-2015)
- Triggering of **cross-sectorial innovations**



Further development through European Cooperation

Summer: Waterfall



Interreg
Italia-Österreich
WinHealth
European Regional Development Fund



Winter: Mix of winter sports



All-season
evidence-based
health tourism
product



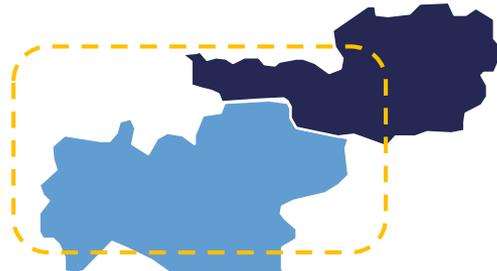
ZERTIFIZIERTER ALLERGIKERGERECHTER BETRIEB

**HOHE TAUERN
HEALTH**



All-season: Certified allergy-friendly HTH hotels

Valorization of Alpine health resources in winter



Interreg
Italia-Österreich
WinHealth
European Regional Development Fund



EUROPEAN UNION



Current projects and future development

- Further scientific substantiation of identified healing resources
- Qualification and knowledge transfer initiatives
- Lead: Institute of Ecomedicine, PMU

Climate Change

Interreg
Italia-Österreich
WinHealth

European Regional Development Fund



EUROPEAN UNION

Sustainable valorization of health tourism potentials in Alpine winter tourism



Demographic Change



TRAIL for Health Nord

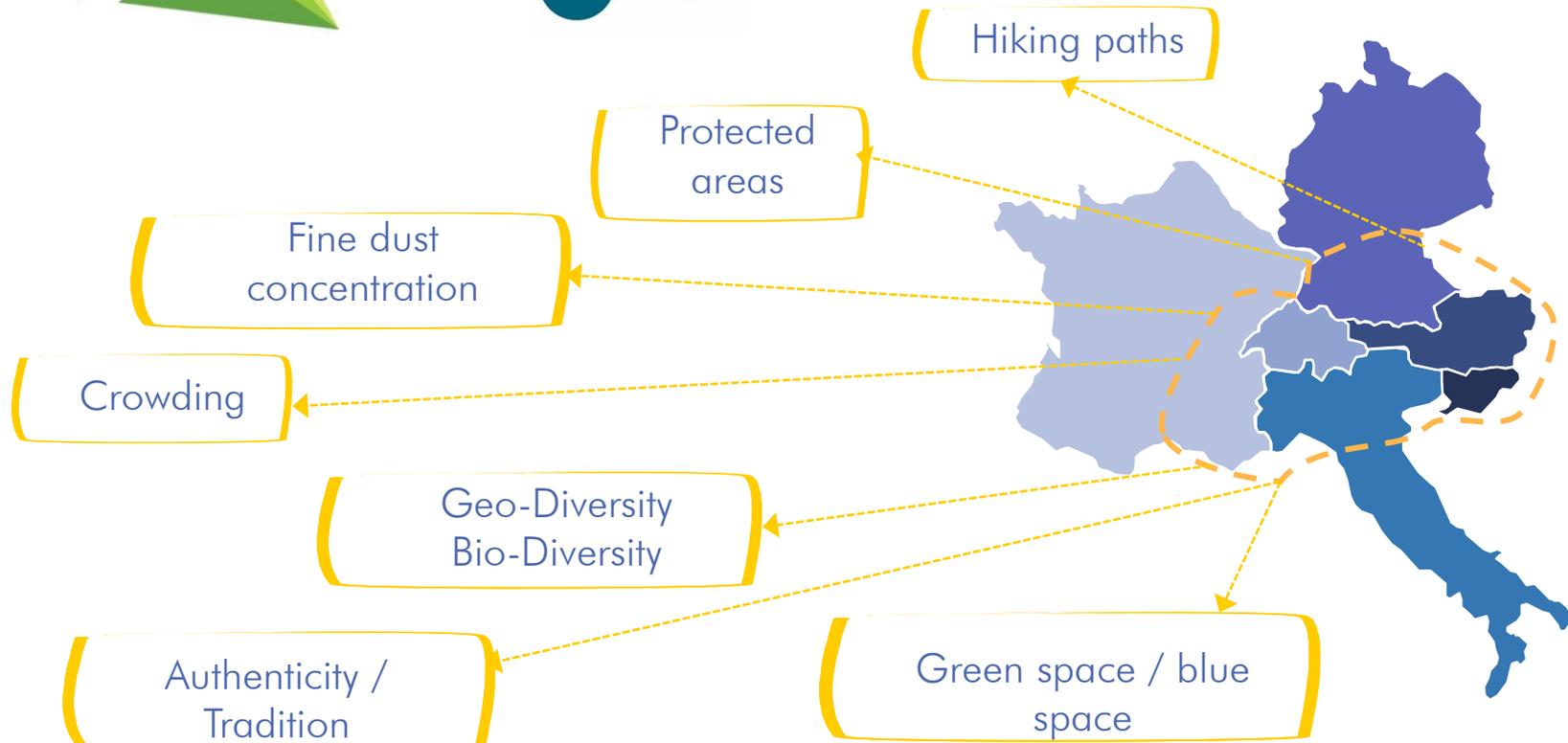
Health tourism competence development for regions and SME



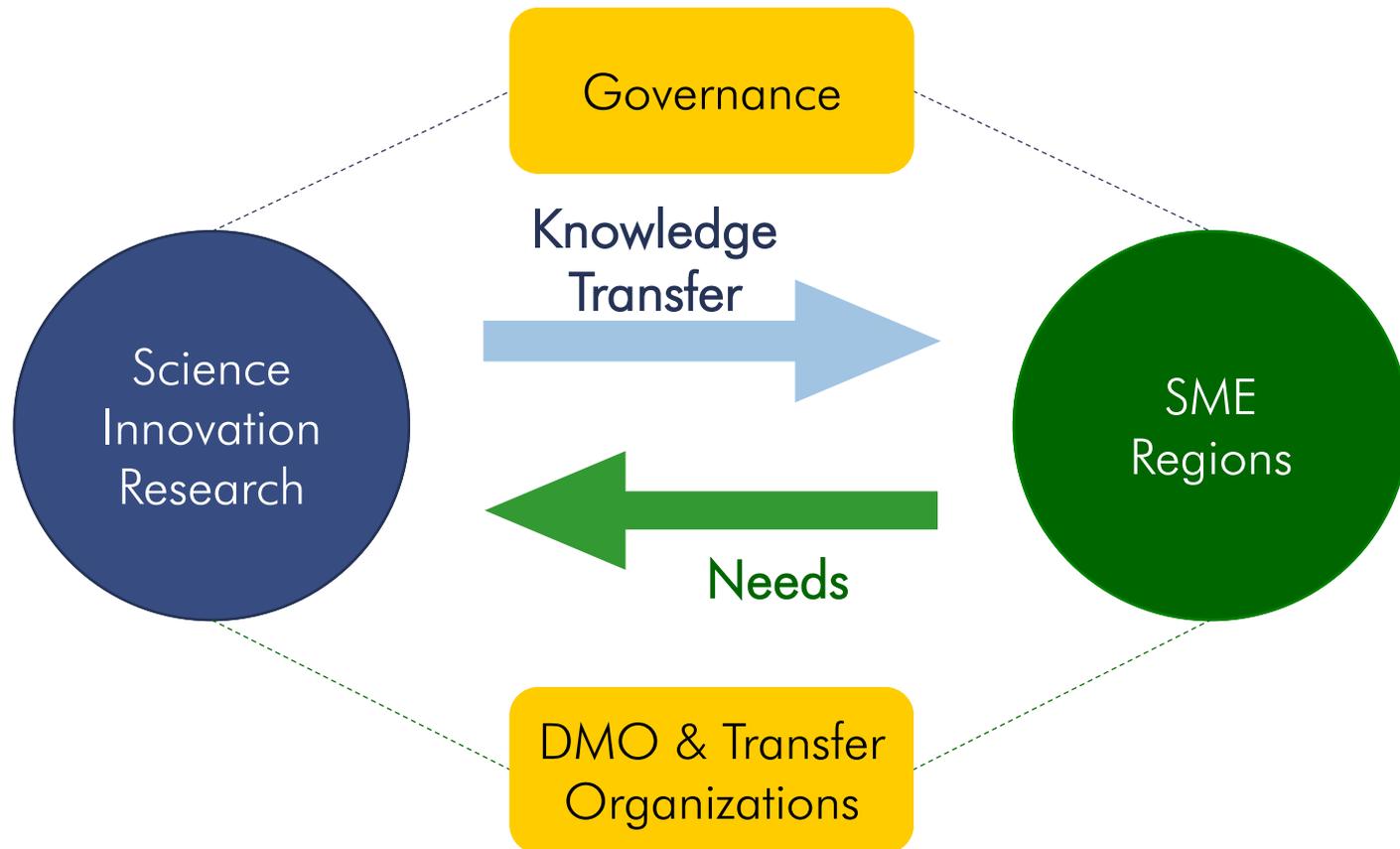
Positioning the Alpine region as healing environment



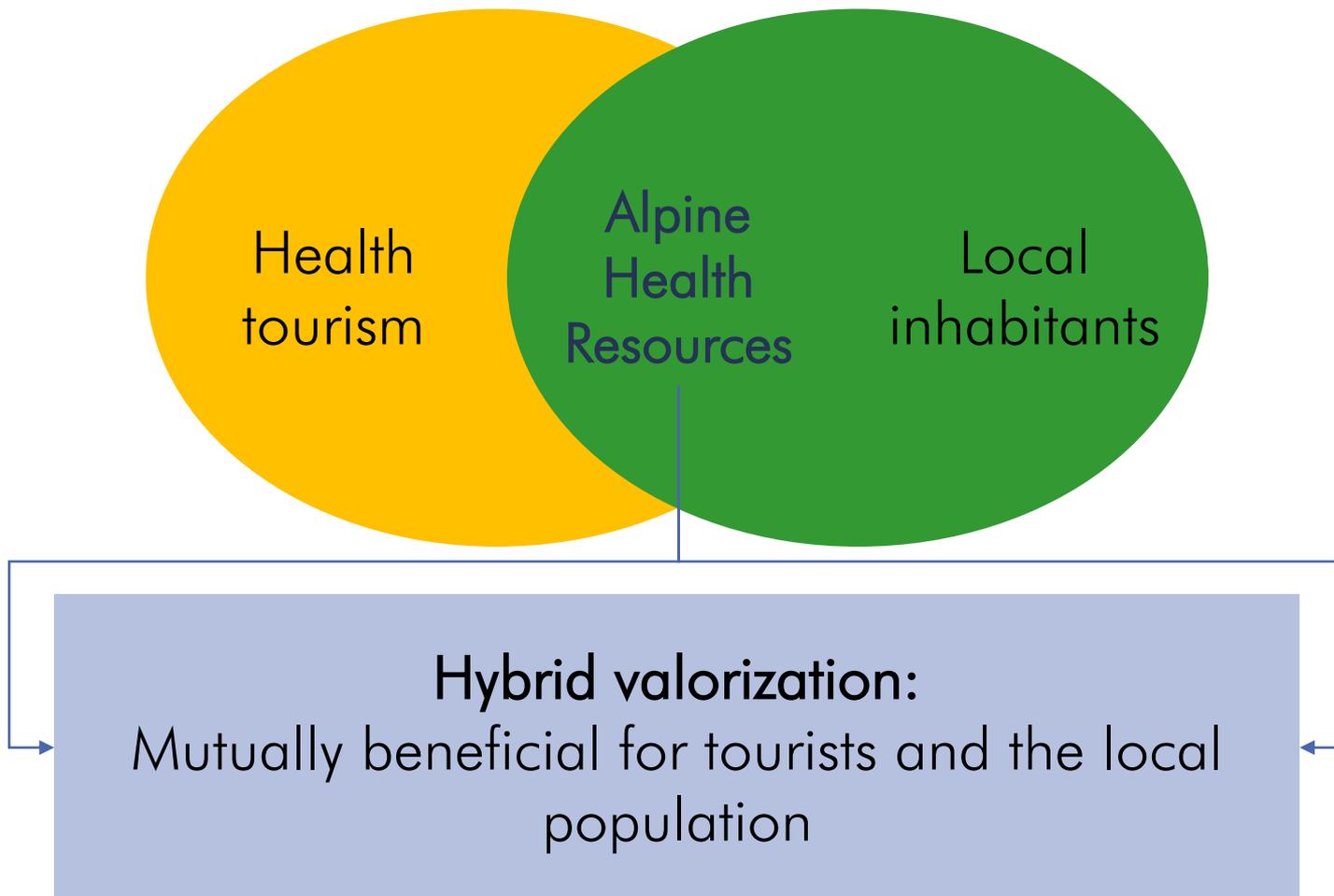
ARPAF project HEALPS: Healing Alps



Regional innovation system



Hybrid valorization of natural resources



Sustainable valorization of natural resources – especially in protected areas

Valorization of natural resources

- The economic valorization of natural health resources depend on their continued existence
- Therefore → strong interest in the responsible use and conservation of these resources
 - Result (at best...): increased awareness and protection of these natural resources

Protection of natural resources

Cordial Invitation

SAVE THE DATE: 6. & 7.12. 2018
BAD HOFGASTEIN, SALZBURG



HEILKRAFT DER ALPEN

Save the Date: Donnerstag, 06.12. 2018 | Freitag, 07.12. 2018
Kongresszentrum Bad Hofgastein | Tauernplatz 1 | 5630 Bad Hofgastein

Der Heilkraft der Alpen - Fachkongress alpiner Gesundheitstourismus 2018 findet innerhalb des Projekts WinHealth - Nachhaltige Inwertsetzung gesundheitstouristischer Potenziale im Alpinen Wintertourismus und in Kooperation mit der „Alpinen Gesundheitsregion SalzburgerLand“ in Zusammenarbeit mit „Heilkraft der Alpen Akademie des Forum Via Sanitas“ und der „EU-Strategie für den Alpenraum [EUSALP]“ statt.

Die Teilnahme am Kongress ist kostenlos.



CURATIVO DELLE ALPI

Save the Date: Giovedì, 06.12. 2018 | Venerdì, 07.12. 2018
Centro congressi Bad Hofgastein | Tauernplatz 1 | 5630 Bad Hofgastein

Congresso “Il potere curativo delle Alpi 2018” è realizzato nell’ambito del progetto Interreg V-A Italia-Austria 2014-2020 (ITAT2015) “WinHealth: Valorizzazione sostenibile dei potenziali turistici salutari nel turismo alpino invernale” in cooperazione con “Alpinen Gesundheitsregion SalzburgerLand” e in collaborazione con “Heilkraft der Alpen Akademie des Forum Via Sanitas” e “La strategia dell’UE per la regione alpina [EUSALP]”.

La partecipazione è gratuita.



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