«Landscape and human health: Forests, Parks and Green Care»
Vienna, 17-19 May 2017

**Landscape effects on human health and
well-being as elements of social innovation
in marginalized rural areas:
Reflections on why and how to evaluate them**

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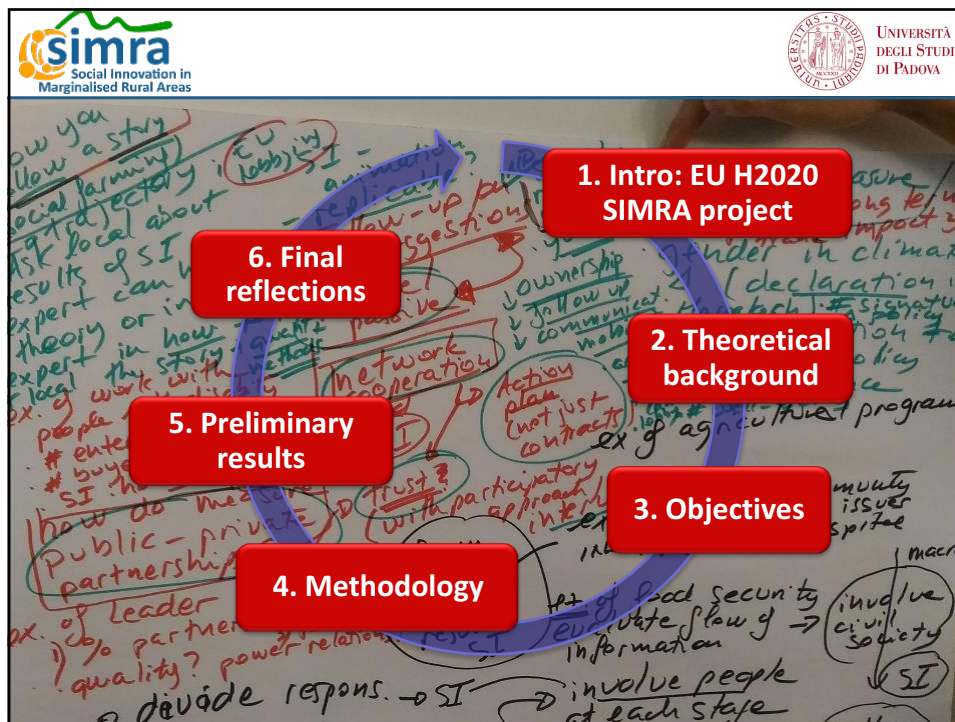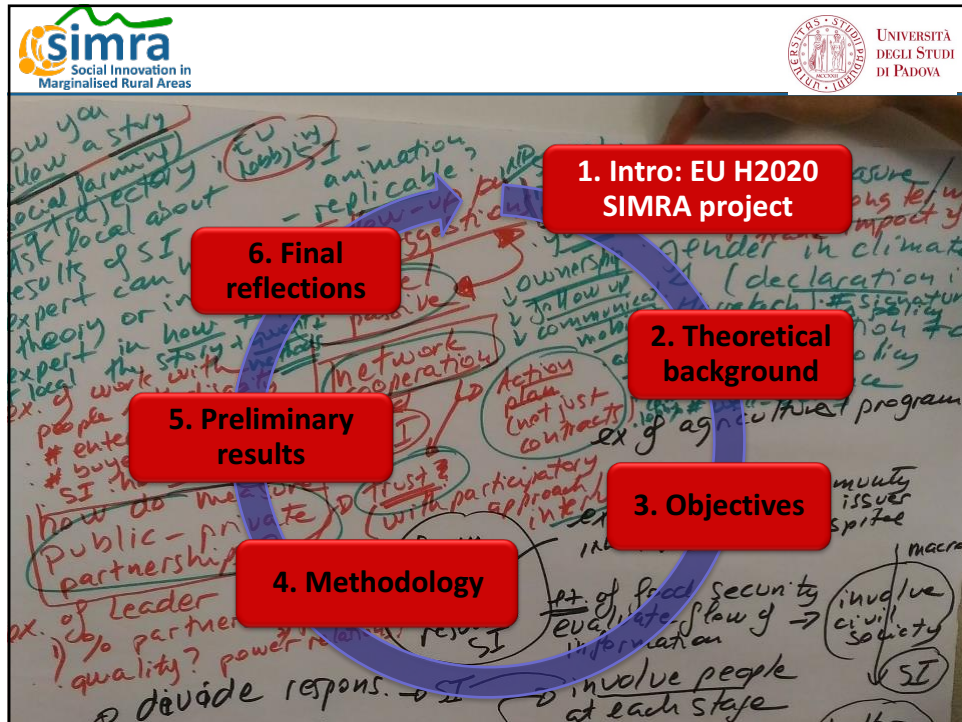**SIMRA** — Social Innovation in Marginalised Rural Areas

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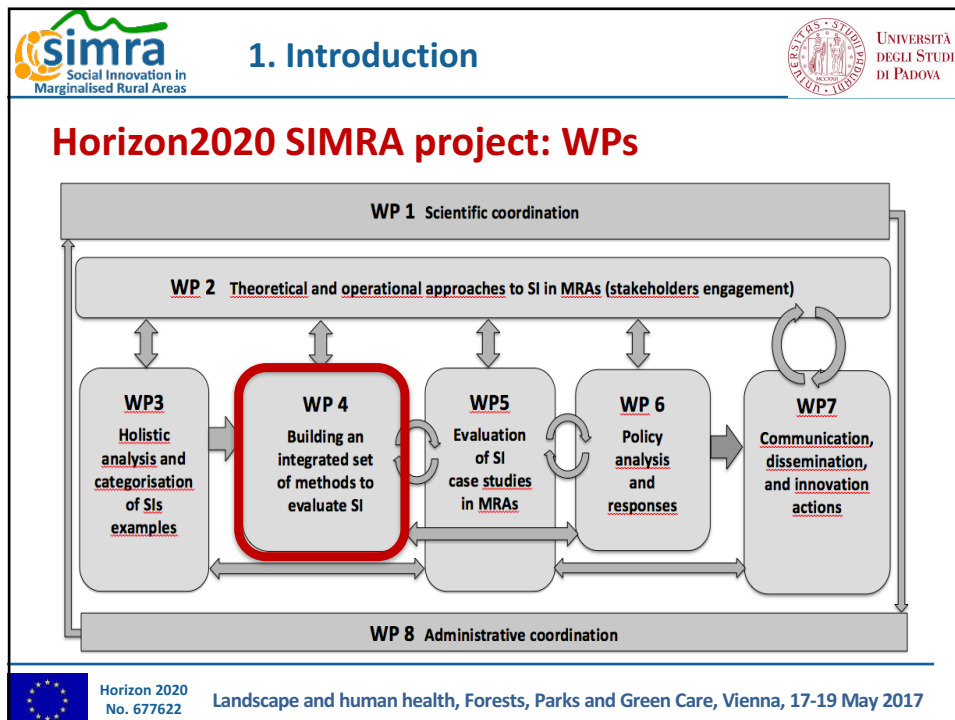
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Horizon2020 SIMRA project

- 4-years **Research and Innovation Action (RIA)** project
- **26 partners** (coordinator: James Hutton Institute, UK)
- **Objective**: **to fill the significant knowledge gap in understanding and enhancing Social Innovation in Marginalized Rural Areas**.
- **Focus on:**
- agriculture, forestry and rural development
    - Marginalized Rural Areas (MRAs)
    - Mediterranean region (including non-EU)
    - **Case studies**
    - **Innovation Actions**

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1. Introduction

Horizon2020 SIMRA project: WPs

WP 1 Scientific coordination

WP 2 Theoretical and operational approaches to SI in MRAs (stakeholders engagement)

WP3 Holistic analysis and categorisation of SIs examples

WP 4 Building an integrated set of methods to evaluate SI

WP5 Evaluation of SI case studies in MRAs

WP 6 Policy analysis and responses

WP7 Communication, dissemination, and innovation actions

WP 8 Administrative coordination

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SIMRA partners

26 in total (24 funded + 2 with own funds from Switzerland)

Key-partners:

•JHI (UK) ➔ WP1, 8
•UNIPD (IT) ➔ WP4
•BOKU (Austria) ➔ WP6
•PERTHCOLLEGE (UK) ➔ WP3
•IFE SAS (Slovak Rep)➔ WP2
•EFI (int.) ➔ WP5
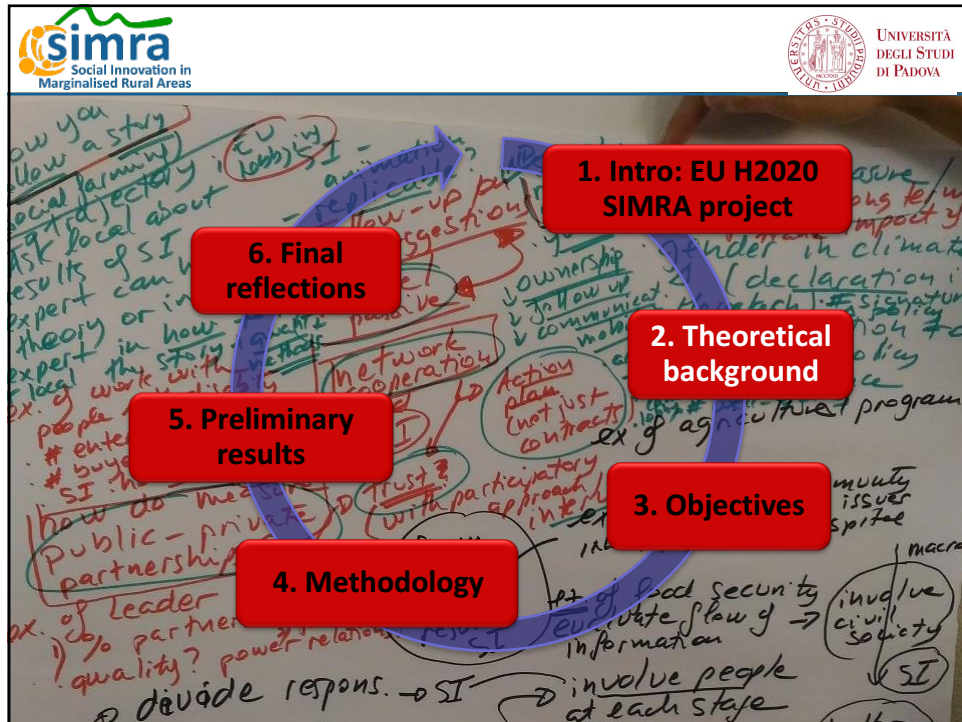•IAMZ-CIHEAM (int.)➔WP7
•EUROMONTANA (int.)➔ WP7

Coordinator: Professor Dr Maria Nijnik
List of participants

Partici pant N	Participant legal name	Acronym	Organisation type	Country
1	James Hutton Institute	HUT	Non-profit organisation	UK
2	University of Padova	UNIPD	Public body	Italy
3	University of Natural Resources and Life Sciences	BOKU	Public body	Austria
4	Agricultural Economics Research Institute	DLO	Non-profit organisation	Netherlands
5	Perth College, University of the Highlands and Islands	PERTHCOLLEGE	Higher education establishment	UK
6	Institute of Forest Ecology of the Slovak Academy of Sciences	IFE SAS	Public body	Slovak Republic
7	European Forest Institute	EFI	International organisation	Finland
8	Mediterranean Agronomic Institute of Zaragoza, International Centre for Advanced Mediterranean Agronomic Studies	IAMZ - CIHEAM	International organisation	Spain
9	International Center for Research on the Environment and the Economy	ICRE8	Non-profit organisation	Greece
10	University of Oulu	UO	Public body	Finland
11	Federal Institute of Agricultural Economics	AWI	Public body	Austria
12	Eastern Norway Research Institute	ØF (ENRI)	Non-profit organisation	Norway
13	Accademia Europea per la ricerca applicata ed il Perfezionamento Professionale Bolzano (Accademia Europea Bolzano), international representation	EURAC	Non-profit, research organisation	Italy
14	Lancaster University	ULANC	Public body	UK
15	University of Foggia	UFIFG	Public body	Italy
16	Cairo University	CU	Public body	Egypt
17	Food and Agricultural Organization, Sub-regional Office for North Africa, Tunisia located	FAOSNE	International organisation	Italy
18	European Association of Mountain Areas, international representation	EUROMONTANA	Non-profit organisation	France
19	Socio-Economic, Environmental and Development Services	SEEDS-int.	Non-profit SME	Lebanon
20	Foreco Technologies S.L.	FORECO	SME	Spain
21	Rural Development Company	RDC	SME	UK
22	CETIP network ltd, based in several CEE countries	CETIP	SME	Czech Republic
23	ÖAR Regionalberatung GmbH	OAR	SME	Austria
24	Centre Technologic Forestal de Catalunya	CTFC	Non-profit organisation	Spain
25	University of Berne, Centre for Development and Environment	UNIBE	Public body	Switzerland
26	Swiss Centre for Mountain Regions	SAB	Non-profit organisation	Switzerland

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2. Theoretical background

Social Innovation (SI) definition

Many definitions for social innovation:

• "those changes in agendas, agency and institutions that lead to a better inclusion of excluded groups and individuals in various spheres of society at various spatial scales" (Moulaert et al., 2005, 1978)

• "innovative activities and services that are motivated by the goal of meeting a social need and that are predominantly developed and diffused through organisations whose primary purposes are social" (Mulgan, 2007, 8)

• "changes in the cultural, normative or regulative structures [or classes] of the society which enhance its collective power resources and improve its economic and social performance" (Hämäläinen and Heiskala, 2007, 74)

• SI is **the capacity to create and implement new ideas that are likely to deliver value** (thus meeting individual economic interests), **contemporarily responding to social demands** (thus meeting societal needs), that are traditionally not addressed by markets or existing institutions (e.g. BEPA, 2011; Anderson et al., 2015).

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2. Theoretical background

Our SI definition

Several definitions in literature: another "fuzzy" word - risk of misleading

Preliminary SIMRA definition:
*The **reconfiguring of social practices in response to challenges associated with society**, economy or environment based on novel ideas and values. These new practices include the creation of **new institutions, networks and governance arrangements**, and seek to **enhance societal outcomes**, especially but not exclusively for disadvantaged groups and recognizing the likelihood of trade-offs among competing interests and outcomes. These practices necessarily include the **voluntary engagement of civil society actors**.*

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Societal challenges

Emerging and increasing social needs and societal challenges:
- **generalized effects on (an increasing) urban population:** "*confusing environments (such as crowded urban ones)… mental fatigue*" (Kaplan and Kaplan, 1989)
- **increasing and new vulnerable groups:**
  - **People with health problems** connected to stress related illnesses, mental problems and cardiovascular health problems (e.g. Health Council of the Netherlands, 2004; Bowler et al., 2010; Tsunetsugu et al., 2013; GPH, 2014, 9)
  - disabled, (e.g. BEPA, 2011).
  - **elders** (ageing) and **youth** (too intensive IT connection),
  - **women** (employment-family stress management),
  - **unemployed** (social exclusion) and **poor persons** (social exclusion),
  - **immigrants, refugees and prisoners** (social exclusion, unemployment)

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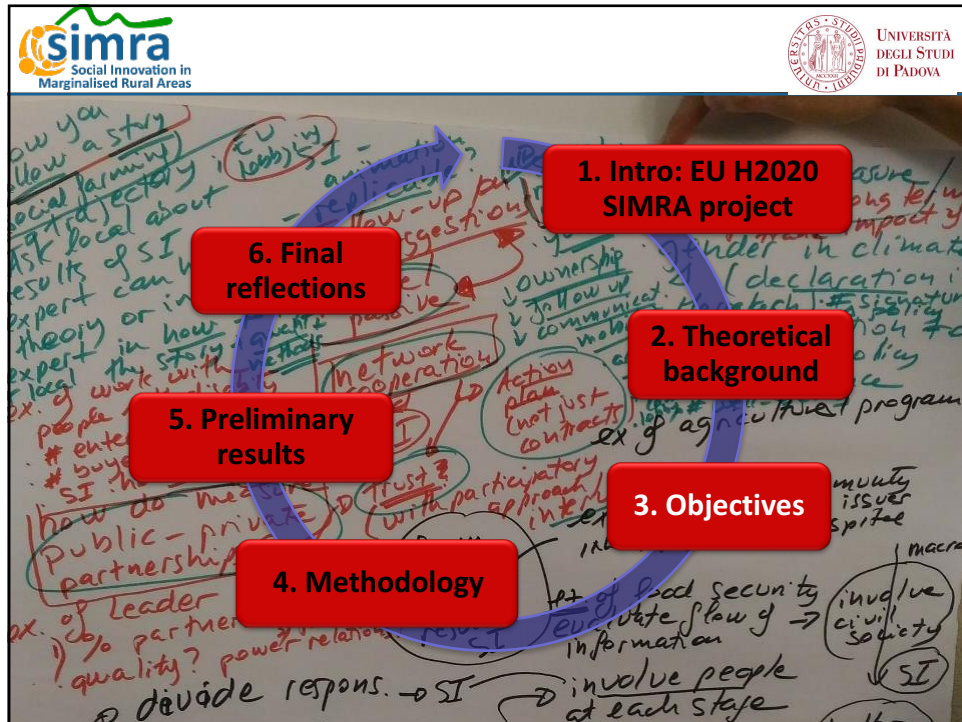DI PADOVA

Landscape benefits

"The natural environment seems to have some special relationship to each of the factors important to a restorative environment" (Kaplan and Kaplan, 1989)

- In general: exposure to natural environments enhances ability to cope with and **recover from stress** (e.g. Health Council of the Netherlands, 2004; Bowler et al., 2010; Tsunetsugu et al., 2013; GPH, 2014, 9)
- **Emotional and physcological health** (Bodin and Hartig, 2003; Hug et al., 2009)
- **Physical health and prevention**
- **Social wellbeing**

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Our objectives in relation to this conference

1
Identify whether and how **existing methods**, approaches and tools **can be used or adapted to evaluate SI** and the impacts of new social uses of forests and MRAs.

2
What **approaches and indicators** would best **capture the multifaceted aspects of new social uses** of forests and landscapes, with a focus on the specificities of health and human well-being in marginalized rural area?

3.
Reflect on whether and **how evaluation of SI can support more effective policies** promoting new social uses of forests and MRAs.

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Why do we evaluate?

- Need evidence on what works
  - Limited budget and bad policies could hurt

- Improve policy/programme implementation
  - Design (eligibility, benefits)
  - Operations (efficiency and targeting)

- Information is key to sustainability
  - Budget negotiations
  - Informing beliefs and the press

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Evaluation and impact evaluation

- **Evaluation** is a **periodic, objective assessment of an ongoing or completed project, programme or policy**, which asks specific questions regarding implementation, management and results.

- **Impact evaluation** is an **assessment of the causal effect of a project, programme or policy** on beneficiaries. It answers the questions:
  - "What was the effect of the program on outcomes?"
  - "How much better off are the beneficiaries because of the program/policy?"
  - "How would outcomes change if changed program design?"
  - "Is the program cost-effective?"

In our case, the project to be evaluated can be a social innovation initiative in a natural environment, which takes advantage of landscape benefits for a certain social need (e.g. a group of person with mental health problems).

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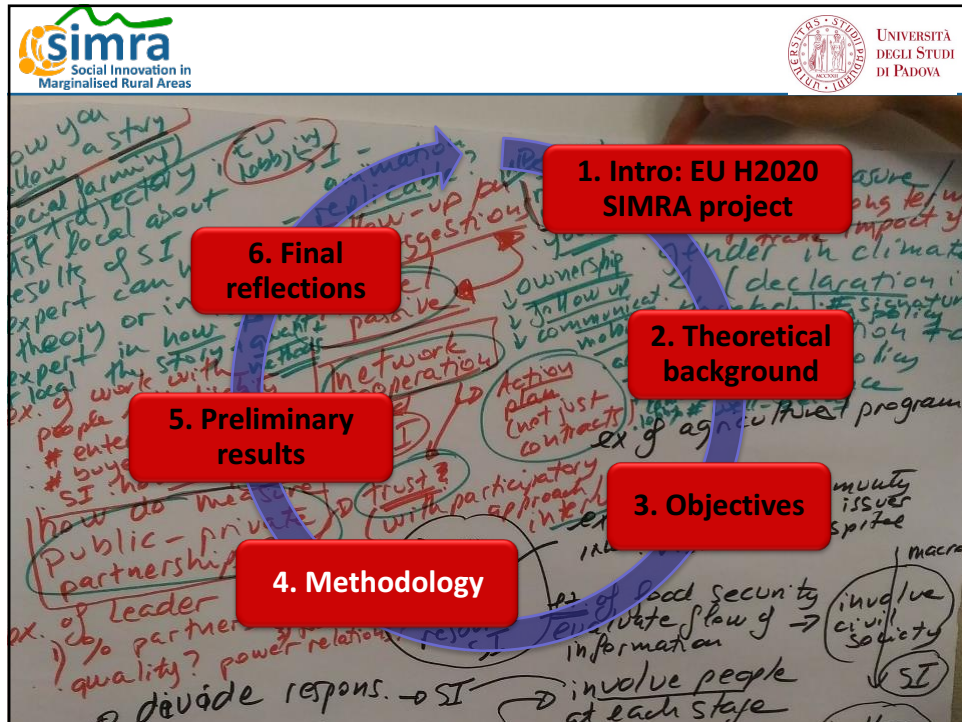
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- **Stakeholders consultation** (discussed issues on methods: qualitative vs. quantitative, process vs. outcome-oriented, participatory vs. expert-based, primary vs. secondary data)

- **Identification and analysis (based on a standardized approach) of existing methods** to be used or adapted for assessing SI and its impacts
  - UNIPD (Italy): coordination
  - ICRE8 (Greece): economic aspects
  - UNIFG (Italy): social aspects
  - EFI (Finland): environmental aspects
  - DLO (The Netherland): governance/institutional aspects
  - BOKU (Austria): policy implications (out of scope of this presentation)

Slide 1:

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Slide 2:

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5. Preliminary results

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Examples of studies on evaluation of landscape effects

Reference	Method	Variables
Di Iacovo et al. (2014). Transition management and **social innovation** in rural areas: lessons from **social farming**	Investigate role of social services in rural development through collective learning	Public-private partnerships New rules and attitudes
Slade et al. (2013). **Evaluating the impact of forest schools**: A collaboration between a university and a primary school	Interviews	Characteristics of Effective Learning' (Early Education, 2012)
Tsunetsugu, et al. (2013). **Physiological and psychological effects of viewing urban forest landscapes** assessed by multiple measurements	Experimental, 48 male participants; test and physiological testing	Profile of Mood States questionnaire Heart beat and systolic and diastolic blood pressure
Iwata et al. (2016). **The psychological and physical impacts of spending time in forests**: a case study of two forests in Ireland	Questionnaire to 179 visitors to broadleaf and coniferous forests	Physiological well-being (mental relaxation, enjoyment and fun) Mood Level of physical activity

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5. Preliminary results

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Experiences in SI evaluation: general characteristics

- **103 frameworks/approaches/methods + 200 tools** collected and fully analysed (governance/institutional approaches missing)
  - 33% in **Europe**
  - 28% in **rural areas**
- 23% specific to assess **social innovation** issues
- 42.3% propose a **participatory approaches** assessment involving multi-stakeholders: beneficiaries, policy makers, citizens, experts, community representatives, farmers, decision makers, NGOs, companies, suppliers, public operators, households, etc.
- At least 54.6% of methods needs an **external evaluators**, while 24% of methods can be used for **self-assessment**
- 63% use **indicators** (of different types: outcome, impact, etc.)

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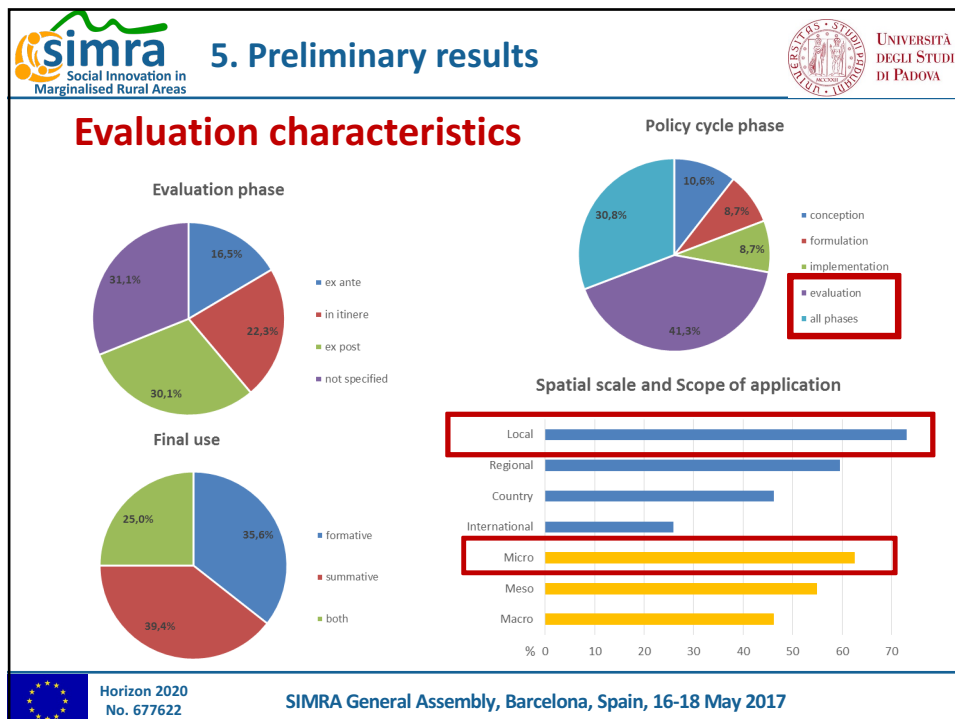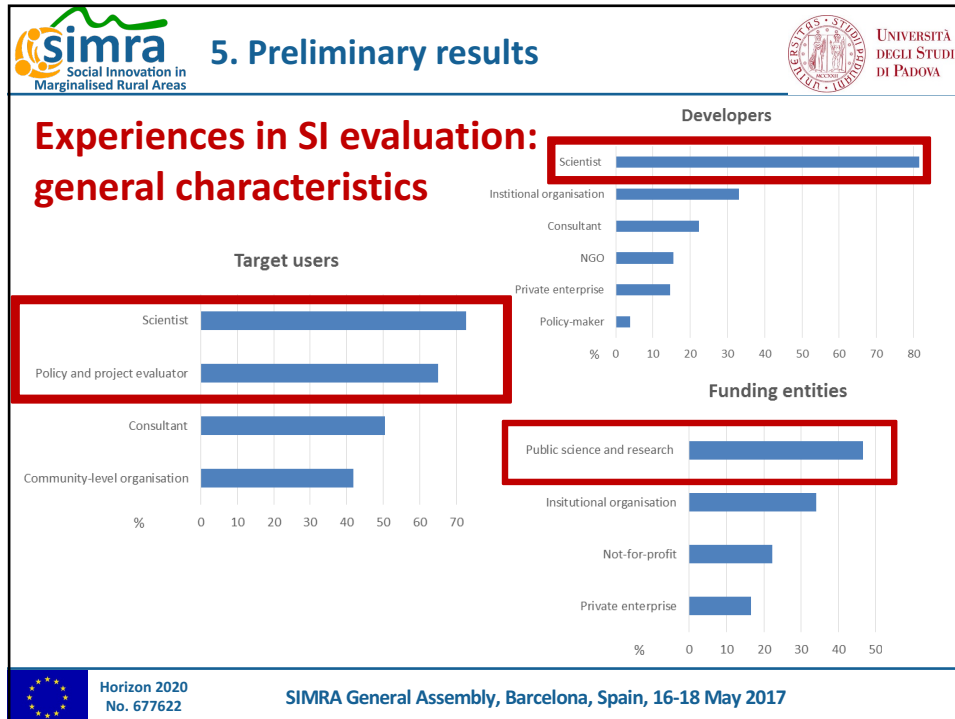UNIVERSITÀ
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Experiences in SI evaluation: use of a structured methodology

- 60.6% mention "**framework**" and "**approach**", 67.3% "**method**", and 58.7% "**tool**"
- 27.9% consider the use of **counterfactual analysis**
- Few methods adopt **specific evaluation criteria:**
  - Relevance 44.2%
  - Efficiency 35.6%
  - Effectiveness 48.1%
  - Impact 58.7%
  - Others: equity, capacity, sustainability
- 33.7% need the use of **specific software** (for modelling, SNA, mapping, etc.)

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5. Preliminary results

Experiences in SI evaluation: general characteristics

Target users / Developers / Funding entities charts

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Evaluation characteristics

Evaluation phase / Policy cycle phase / Final use / Spatial scale and Scope of application charts

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An example in detarils

Slade, M., Lowery, C., & Bland, K. (2013). **Evaluating the impact of forest schools**: A collaboration between a university and a primary school. *Support for Learning*, 28(2), 66-72.

Framework adapted from the **'Characteristics of Effective Learning'** (Early Education, 2012)

ENGAGEMENT
Finding out and exploring
- Showing curiosity about objects, events, people
- Using senses to explore the world around them
- Engaging in open-ended activity
- Showing particular interests

Playing with what they know
- Pretending objects are things from their experience
- Representing their experiences in play
- Taking on a role in their play
- Acting out experiences with other people

Being willing to 'have a go'
- Initiating activities
- Seeking challenge
- Showing a 'can do' attitude
- Taking a risk, engaging in new experiences and learning by trial and error

CREATIVE AND CRITICAL THINKING
Having their own ideas
- Thinking of ideas
- Finding a way to solve problems
- Finding new ways to do things

Making links
- Making links and noticing patterns in their experience
- Making predictions
- Testing their ideas
- Developing ideas of grouping, sequencing, cause and effect

Choosing new ways to do things
- Planning, making decisions about how to approach a task, solving a problem and reaching a goal
- Checking how well their activities are going
- Changing strategy as needed
- Reviewing how well the approach worked

MOTIVATION
Being involved and concentrating
- Maintaining focus on activity for a period of time
- Showing high levels of energy, fascination
- Not easily distracted
- Paying attention to details

Keep on trying
- Persisting with activity when challenges occur
- Showing a belief that more effort or a different approach will pay off
- Bouncing back after difficulties

Enjoying achieving what they set out to do
- Showing satisfaction in meeting their own goals
- Being proud of how they accomplish something – not just the end result
- Enjoying meeting challenges for their own sake rather than external rewards or praise

PERSONAL AND SOCIAL DEVELOPMENT
Making relationships
- Co-operating in an activity; taking turns
- Negotiating with peers
- Showing empathy towards others' needs and feelings
- Developing positive relationships

Self-confidence and self-awareness
- Trying new activities
- Expressing personal preferences
- Verbalising own ideas confidently
- Selecting resources
- Showing appropriate levels of independence and help-seeking

Managing feelings and behaviour
- Verbalise understanding of own feelings, behaviour and its consequences
- Working in a small or large group
- Following rules
- Showing adaptability

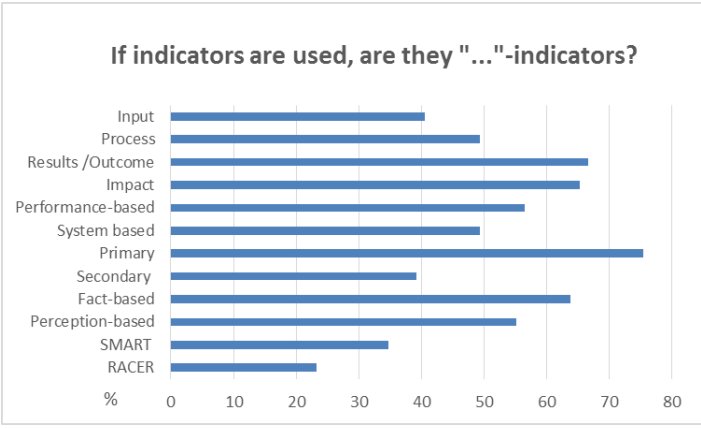**SIMRA** — Social Innovation in Marginalised Rural Areas

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Evaluation characteristics

- 66.3% explicitly use indicators
- Among them:
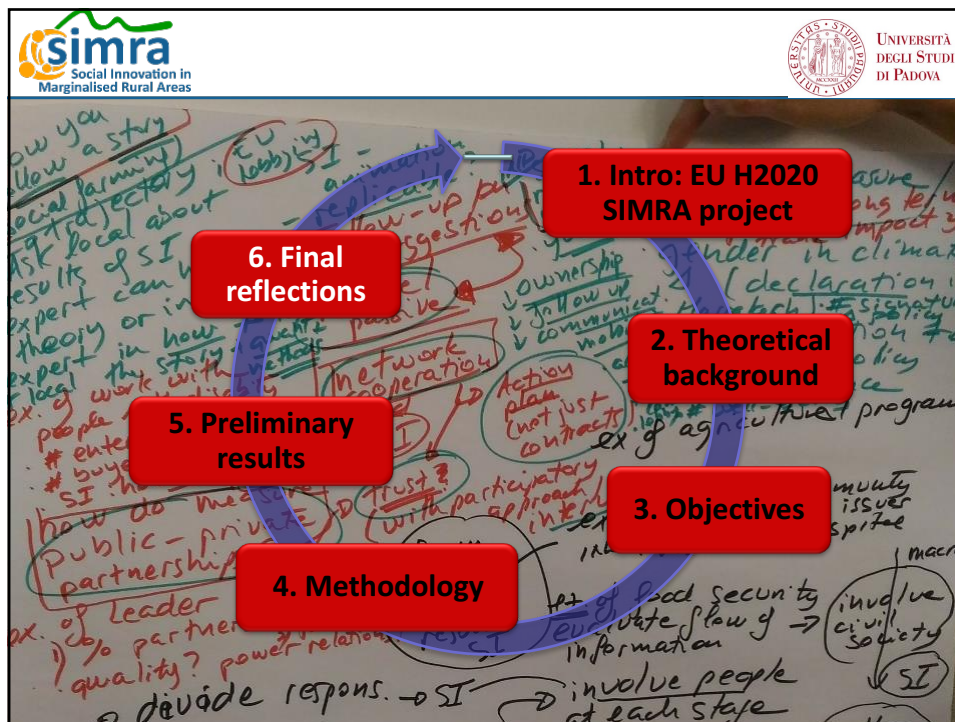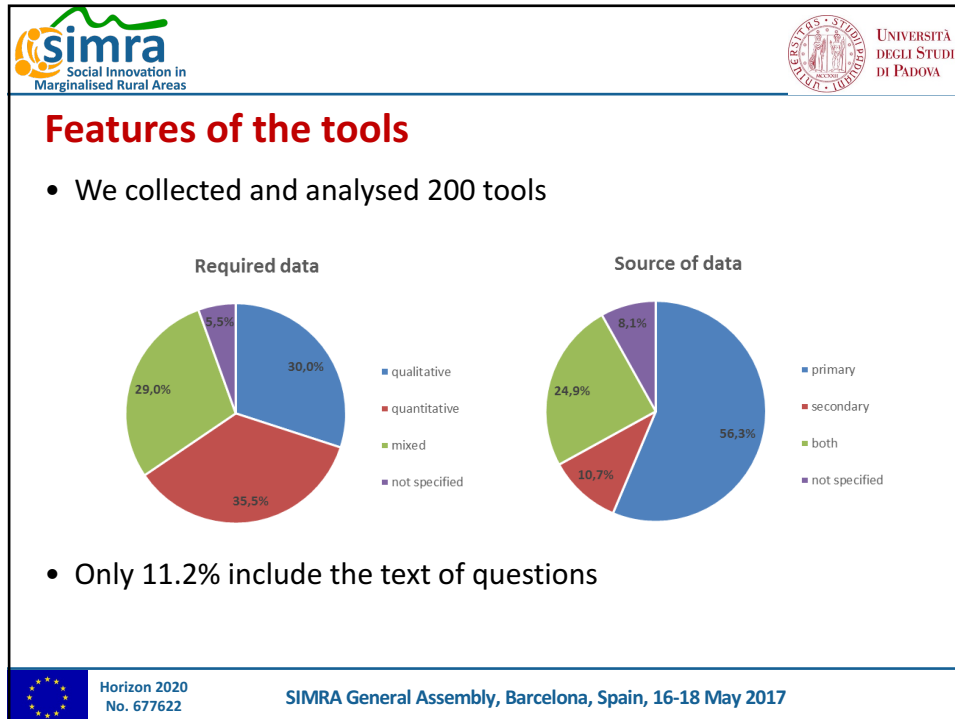

If indicators are used, are they "..."-indicators?

(Categories: Input, Process, Results /Outcome, Impact, Performance-based, System based, Primary, Secondary, Fact-based, Perception-based, SMART, RACER — % axis 0 to 80)

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6. Final reflections

- It is **not easy to find a clear cause-effect chain** (theory of change)
- A very few cases of existing methods and tools specifically focused on **impacts of landscape benefits!**
- Main results presented in the literature are on **immediate effects on small groups of beneficiaries**
- Finding the **overall impacts on wellbeing over the long term** and generalise them is much more complex!

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Final reflections: the result-chain as key tool

At the basis of any cause-effect evaluation, the **theory of change** provides a description of how an intervention delivers the desired results.

Social and societal need	• Students spend very little time outdoors, with consequences on their mental and physical health
IDEA	• Promote courses for teachers to spend more time outdoors, by following the model of Forest Schools
Activity	• Teacher training courses developed for Forest Schools
Output	• Teachers trained in new methods (SUPPLY SIDE)
Outcome	• New methods used (DEMAND SIDE) • Increased completion rates
Impact	• Increased test scores • Decreased impact of ADHD • Decreased stress levels

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6. Final reflections

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SI is interlinked with several landscape benefits!

SI initiatives promote new uses of forests, and thus provide options for landscape benefits:

- Community volunteering (e.g. tree planting)
- Nature therapy: Wilderness therapy (e.g. "*Montagnaterapia.it*", Horticultural therapy, Animal assisted therapy)
- Work integration → Social farms focus on the health of specific population groups
- Diverse forms of access (e.g. physical exercise, contemplation)
- ...

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6. Final reflections

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- We need to improve our understanding of **what types of effects** of new social uses of forests and rural landscapes **should be evaluated and how** (e.g. find new, more comprehensive and easy-to-detect indicators – or are those already existing enough?)

- We need **to measure the real, long term and broader impacts on the society** to better guide policy makers and practitioners

  → **Work in progress for SIMRA!**

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Join our discussions in SIMRA!

Find (soon) useful material, tell us about cases of SI in MRA, contribute to our blog and more!!!

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Thanks for your attention!

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