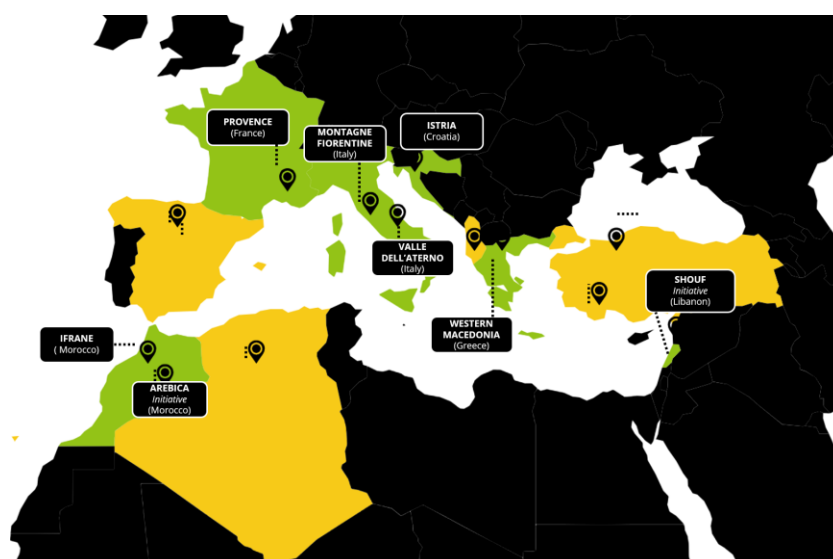# ANALYSIS OF THE ONLINE QUESTIONNAIRE ON ECOSYSTEM SERVICES

Analysis and report by Annalisa Spalazzi, researcher and collaborator of the Aterno Valley Forest Model. This activity is part of a broader framework of participatory planning and funding analysis, including calls for proposals, aimed at developing projects that ensure the economic sustainability of ecosystem service in forest governance. The project is supported by the Development and Cohesion Fund 2014-2020, within the Operational Agriculture Plan, Sub-plan 3: 'Multifunctionality of the Forest and Sustainable Use of Renewable Resources in Rural Areas.

1) RESPONDENTS

Figure 1: Map of the respondents to the survey (8 out of 13 Model Forests)

GEOGRAPHICAL COVERAGE

Specific area of interest as reported in the survey:

Shouf Model Forest	Lebanon/Mount Lebanon/ Chouf/ located between 4 main villages
Ifrane Forest Model	Ifrane province
WESTERN MACEDONIA MODEL FOREST	Western Macedonia region
Foresta Modello Valle Aterno - Aterno Valley Model Forest	Middle Aterno River valley/Abruzzo Region/Italy which partially includes the Regional Park Sirente- Velino

Montagne Fiorentine Model Forest	The extended area of Montagne Fiorentine (54.800 ha)
Model Forest Istria	Northern part of Region of Istria (116.200 ha)
Forêt Modèle de Provence	Region South Provence-Alpes-Côte d'Azur, Departments of Var and Bouches-du-Rhône, and in the reference massifs: Etoile, Garlaban, Sainte-Baume, and the Maures massif
Association forêt modèle Atlas Midelt	the entire geographical area of the province of Midelt, which includes part of the Khenifra National Park, the Eastern High Atlas National Park in Midelt, and the Atlas Cedar Biosphere Reserve.

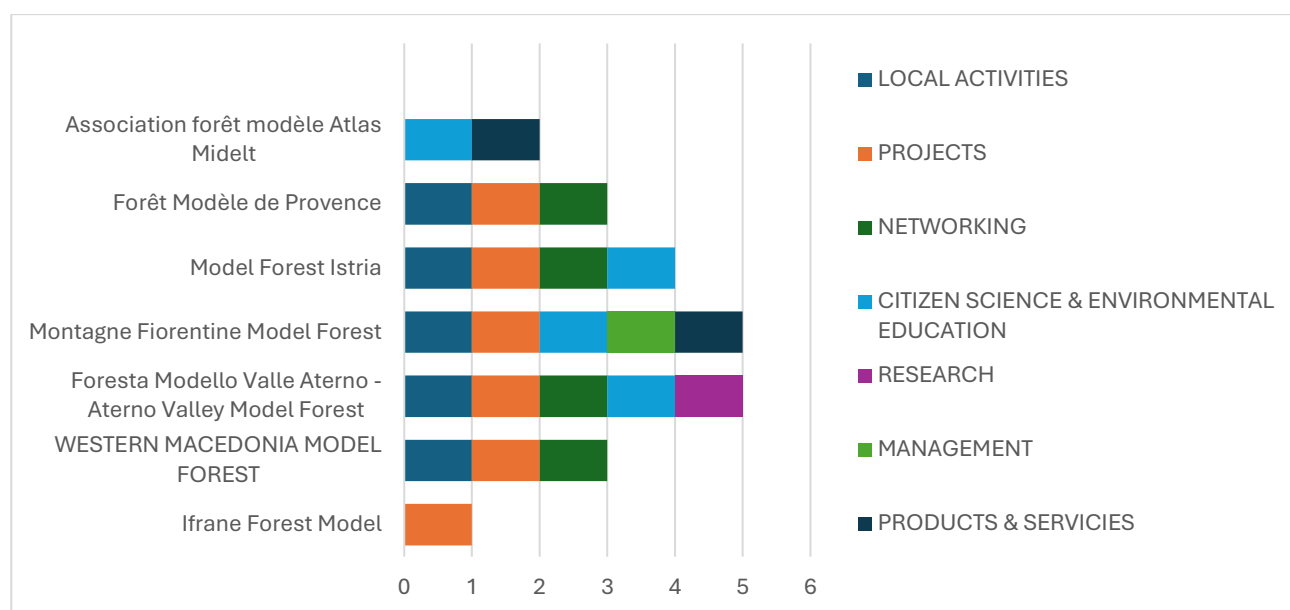## 2) ANAGRAPHICS OF THE MODEL FORESTS

- Formally, all of them are Association (6) or NGO (2).
- The starting dates are from 2010 (Ifrane) and 2012 (Montagne Fiorentine) till the newest ones in 2024 (Western Macedonia and Atlas Midelt). One of them is on the way for its candidacy (Shouf).

The composition of the network is as follows:

		MEMBERS (TOT)	PUBLIC ENTITIES	BUSINESSES	INDIVIDUALS	ASSOCIATIONS
Shouf	-	*	4	2	1	1
Ifrane	2010	50	5	1		10
WESTERN MACEDONIA	2024	70	4	1	57	8
Aterno Valley	2018	100	15	15	60	10
Montagne Fiorentine	2021	112	16	50	37	9
Istria	2014	29	14	3	8	4
Provence	2010	138	27	24	58	29
Atlas Midelt	2024	**	5	5	20	10

- Shouf: * not defined yet but plans to have 4 representatives from the 4 villages, 1 Expert, and 1 from The Nature Reserve
- Atla Midelt: ** not defined yet but plans to have at least 5 (The local authority, the Water and Forests Agency (ANEF), the Ministry of National Education, the Ministry of Agriculture, the Ministry of Tourism, the Ministry of Youth, Culture, and Communication...)

3) CURRENT ACTIVITIES

In detail :

Shouf Model Forest	Local activities (Outdoor activities, Hiking, Biking, Picnicking, Forestry mainly cleaning and clearing, Wild edible plants collection, grazing, Biodiversity monitoring, Research and awareness, other activities)
Ifrane Forest Model	Local, regional, and national
WESTERN MACEDONIA MODEL FOREST	Festivals, meetings, EU projects
Foresta Modello Valle Aterno - Aterno Valley Model Forest	network, meetings, research projects about truffles and forest bioindicators, forest mapping and planning, ecosystem services and related value chains survey, national and regional projects, walking tours to reconnect people and forests, monumental trees census, survey on forests perception by local communities,
Montagne Fiorentine Model Forest	European project on digitalization of the forestry sector and value chains, cultural and heritage hikes, environmental education in the schools and summer camps, support for the MMFN Secretariat management, local and traditional events, local wood and non-wood products valorization, network with other Model Forests, participation in workshop/events to present the Model Forest approach, Forest Therapy, improving accessibility and inclusion in the territory of the MFMF.
Model Forest Istria	International cooperation projects, knowledge transfer, production of educational materials, training, networking, and organization of events
Forêt Modèle de Provence	Network meetings, numerous local projects (towards sectors and research—particularly on climate change adaptation), European projects, event organization, communication,and networking.
Association forêt modèle Atlas Midelt	Several activities are being launched simultaneously, such as ecotourism, training, and raising awareness about environmental education...

4) ECOSYSTEM SERVICES RELATED ACTIVITIES AND INTEREST

How much of a priority are the following ecosystem services related' socio-economic activities in the area of interest of the Model Forest?

The most relevant for the whole Mediterranean network are
(in brackets, the points for each answer out of a total possible value = 32):

1	Cultural and artistic activities (31/32)	
2	Sustainable tourism Forest care (28/32)	
3	Fire prevention Research and monitoring Forest bathing (27/32)	
4	Wood processing Ecosystem restoration projects (25/32)	
5	Biomass energy Water, river, and lake protection in the forest Wild herbs gathering (24/32)	

The overall results for each of the topics are reported in Figure 2 (page 5). However, specific priorities gather two or more Model Forests around main priorities, as reported in Figure 3 (page 6). Following Figure 3 (pages 7-14), there is the same graph for each Model Forest to highlight the specificities of the local cases and priorities. While it is relevant to highlight the general view and priorities, it is also important to highlight where there are common interests between at least two or three Model Forests to work together in specific activities. For example:

Ecosystem service' related activities	List of Model Forests that consider the topic as a top priority (value 4)
Truffle production	2 (Istria, Valle dell'Aterno)
Sustainable tourism	7 (Shouf, Western Macedonia, Valle dell'Aterno, Montagne Fiorentine, Istria, Provence, Atlas Midelt)
Chestnut production	2 (Montagne Fiorentine, Western Macedonia)
Sheep farming	2 (Shouf, Atlas Midelt)
Forest care	7 (Shouf, Western Macedonia, Valle dell'Aterno, Montagne Fiorentine, Ifrane, Provence, Atlas Midelt)

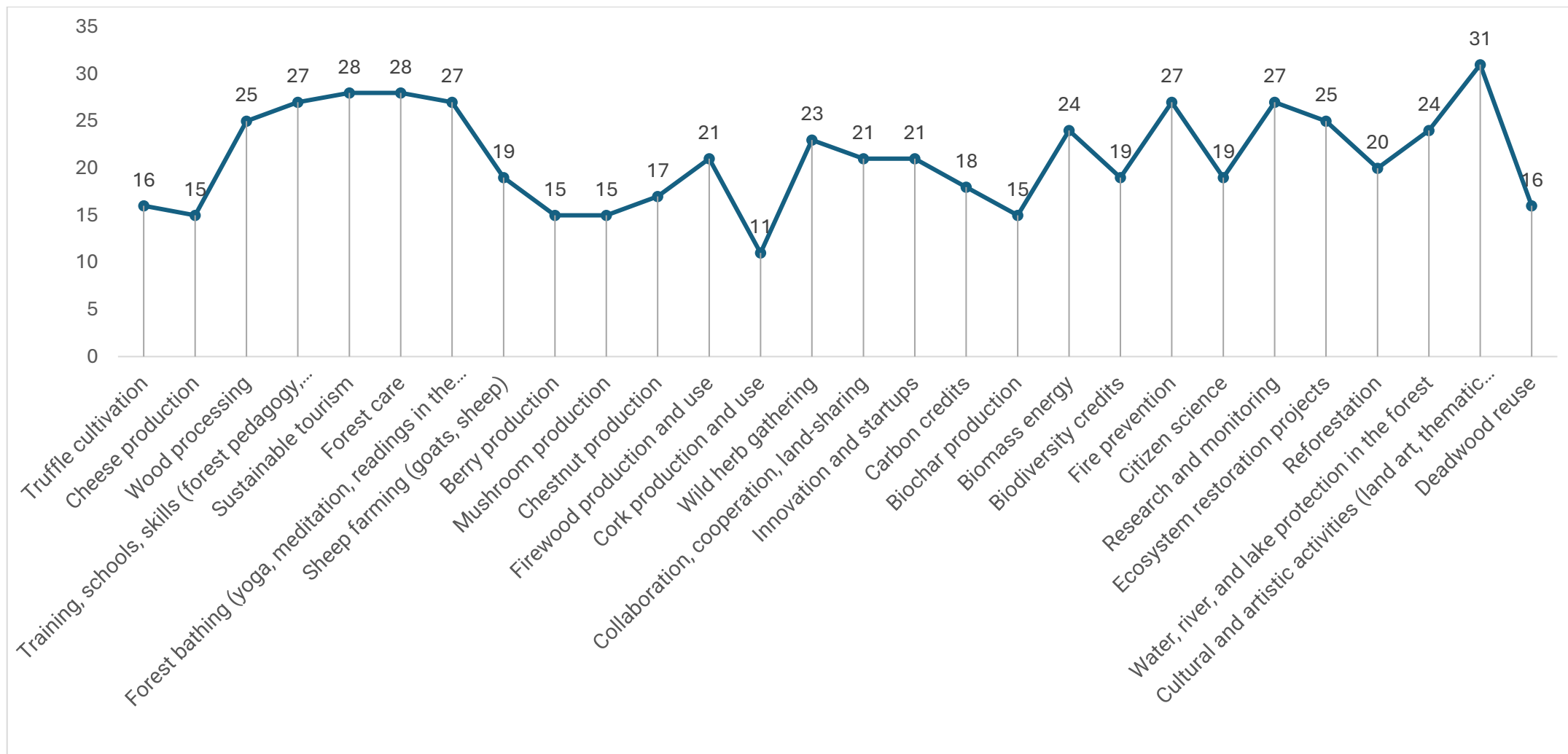|	
Fire prevention	5 (Shouf, Western Macedonia, Montagne Fiorentine, Provence, Atlas Midelt)
Ecosystem restoration projects	3 (Shouf, Ifrane, Western Macedonia)
Water, river, and lake protection in the forest	3 (Ifrane, Provence, Atlas Midelt)
Cultural and artistic activities	7 (Ifrane, Western Macedonia, Valle dell'Aterno, Istria, Provence, Atlas Midelt)

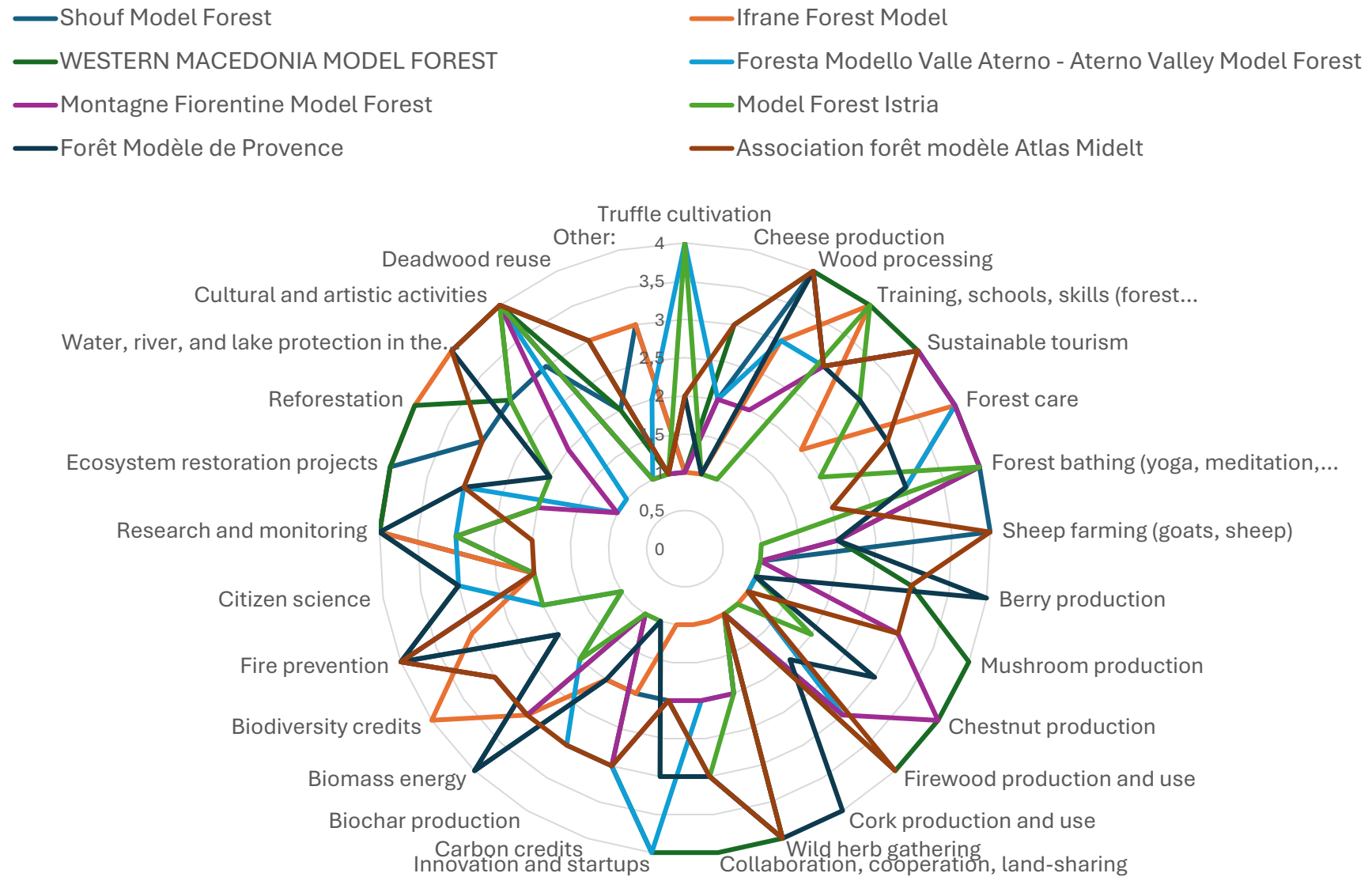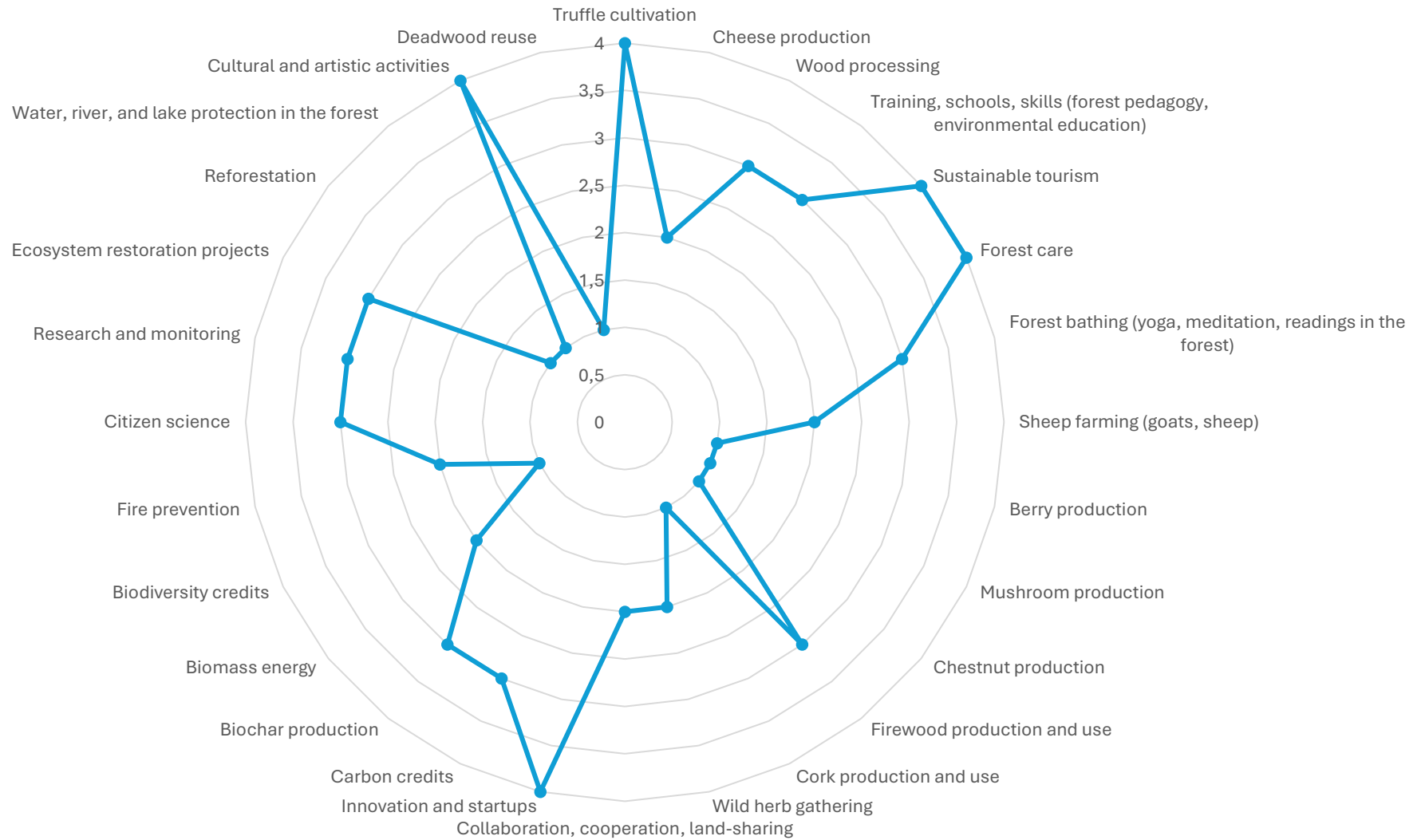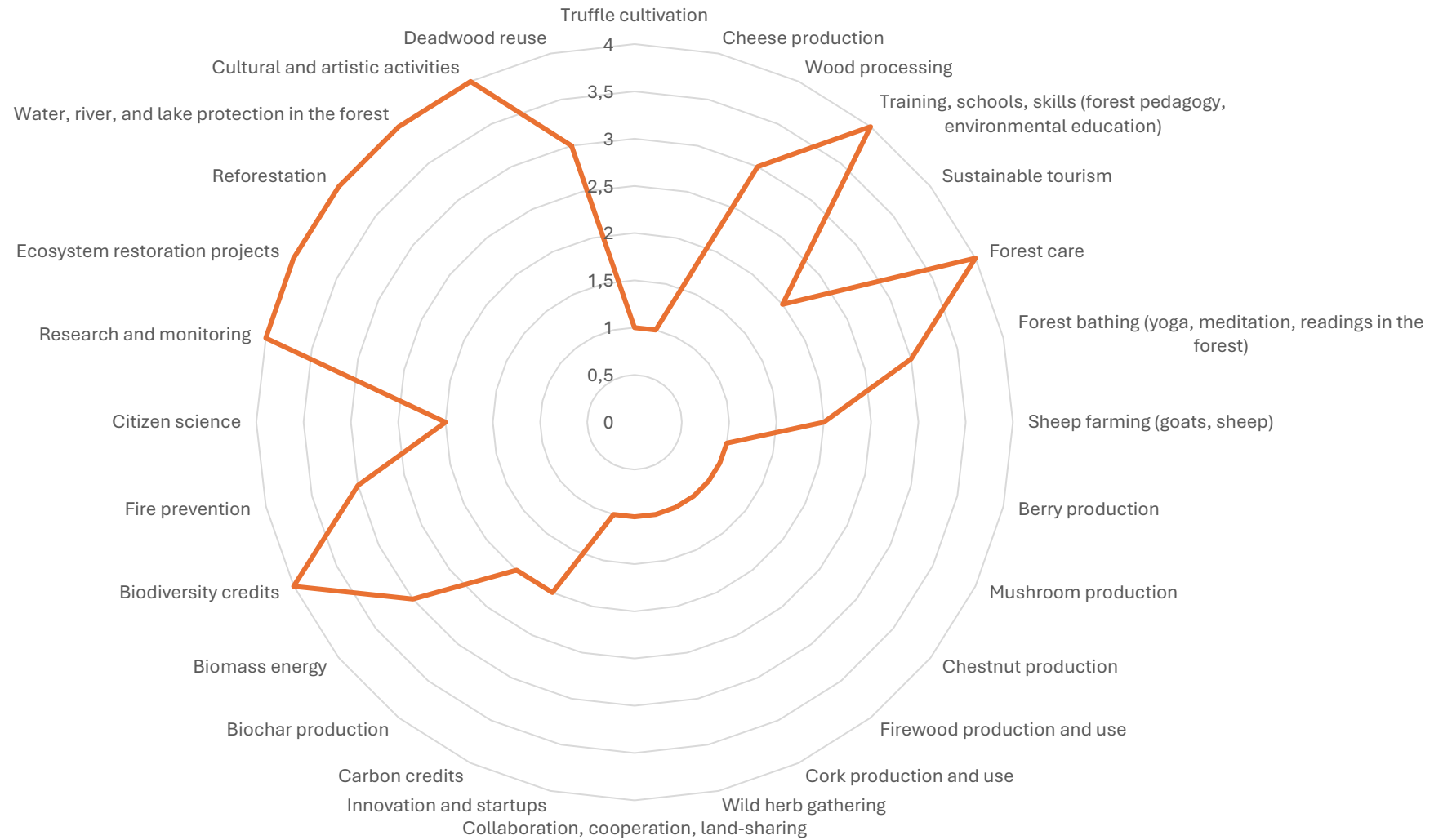**Figure 2: Overall priorities of the Model Forest Mediterranean Network**

Figure 3: Priorities for each of the Model Forest Mediterranean Network

Legend:
- Shouf Model Forest
- Ifrane Forest Model
- WESTERN MACEDONIA MODEL FOREST
- Foresta Modello Valle Aterno - Aterno Valley Model Forest
- Montagne Fiorentine Model Forest
- Model Forest Istria
- Forêt Modèle de Provence
- Association forêt modèle Atlas Midelt

Axis labels:
Truffle cultivation, Other:, Cheese production, Wood processing, Training, schools, skills (forest..., Sustainable tourism, Forest care, Forest bathing (yoga, meditation,..., Sheep farming (goats, sheep), Berry production, Mushroom production, Chestnut production, Firewood production and use, Cork production and use, Wild herb gathering, Collaboration, cooperation, land-sharing, Innovation and startups, Carbon credits, Biochar production, Biomass energy, Biodiversity credits, Fire prevention, Citizen science, Research and monitoring, Ecosystem restoration projects, Reforestation, Water, river, and lake protection in the..., Cultural and artistic activities, Deadwood reuse

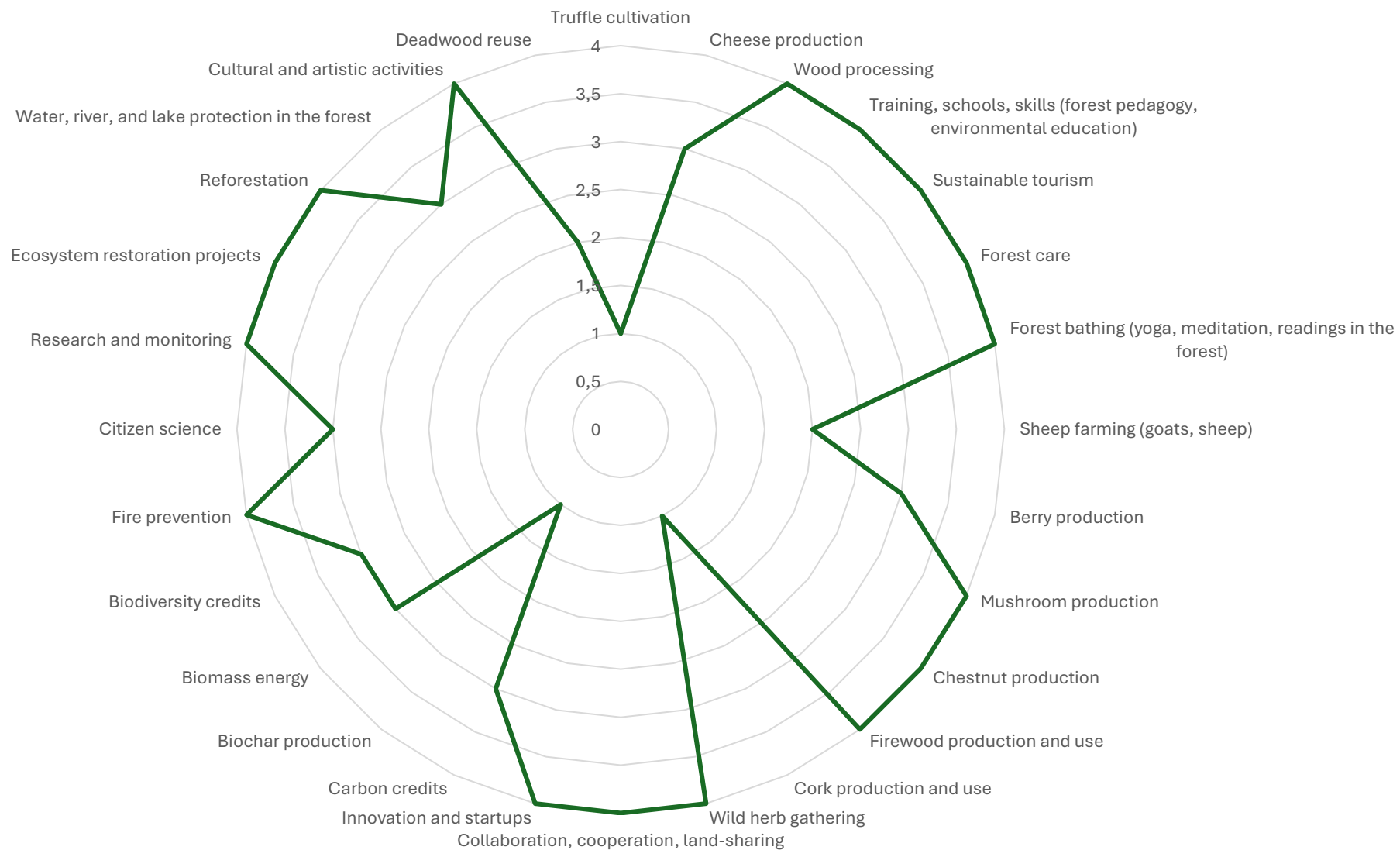Foresta Modello Valle Aterno - Aterno Valley Model Forest
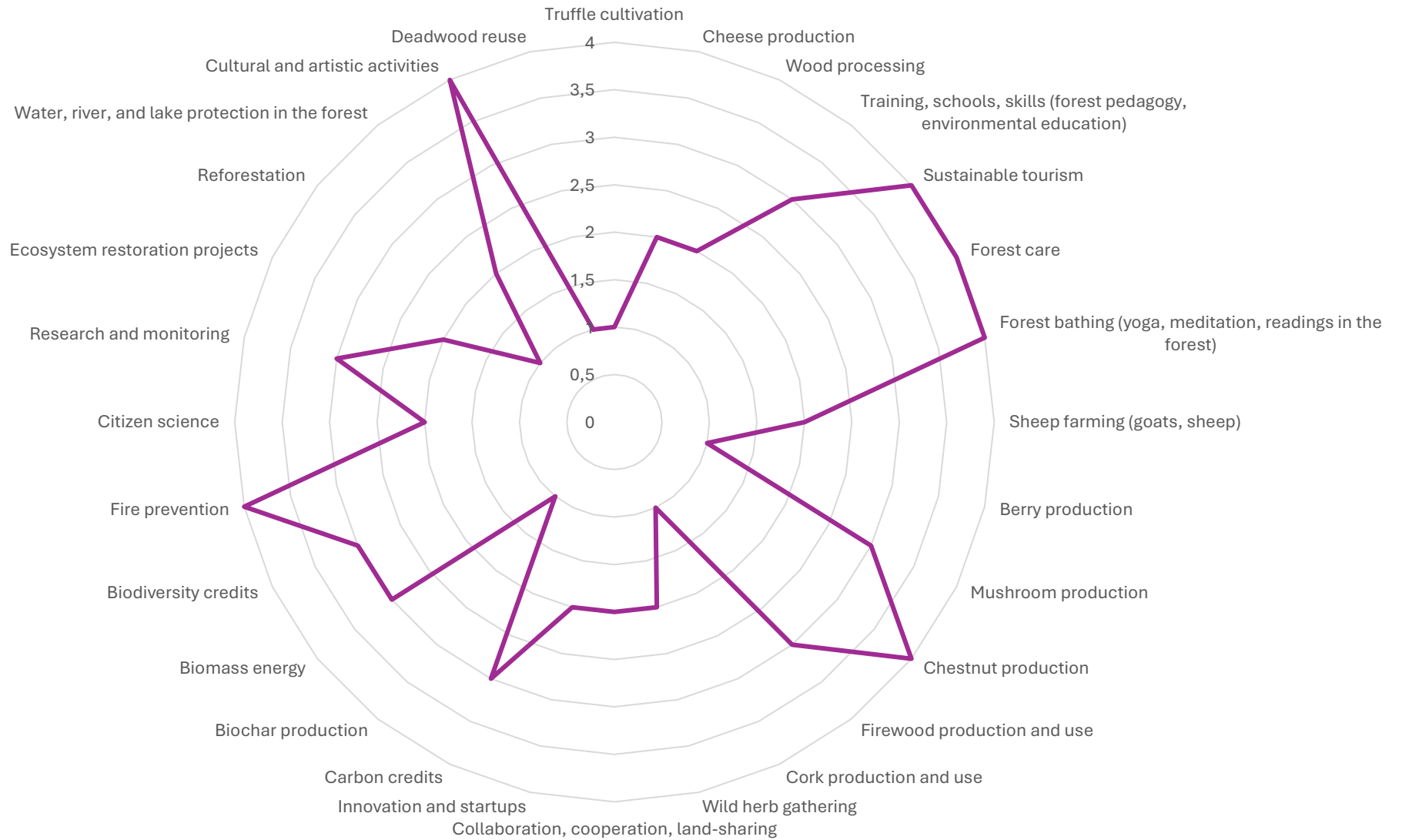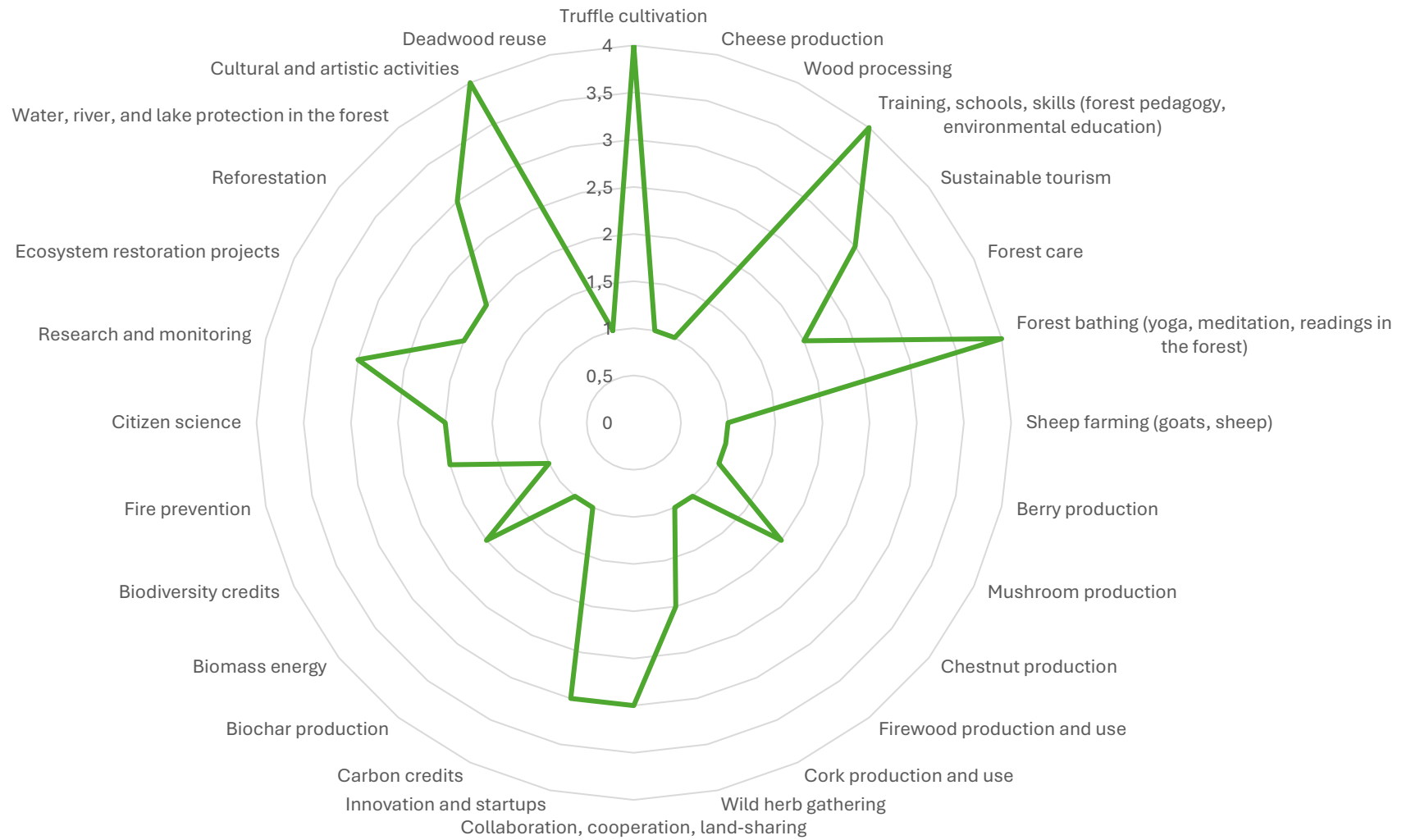
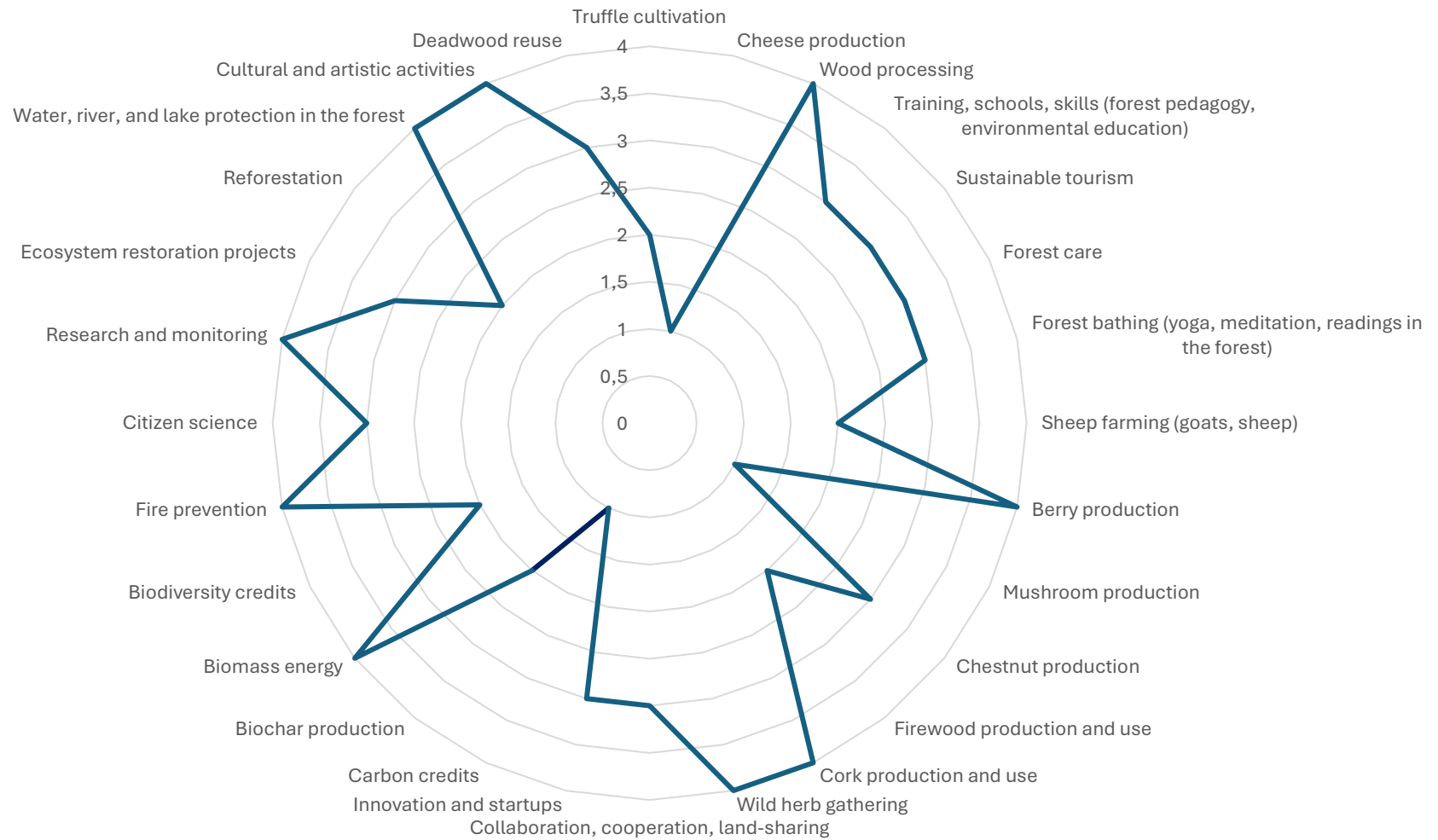Ifrane Forest Model

WESTERN MACEDONIA MODEL FOREST

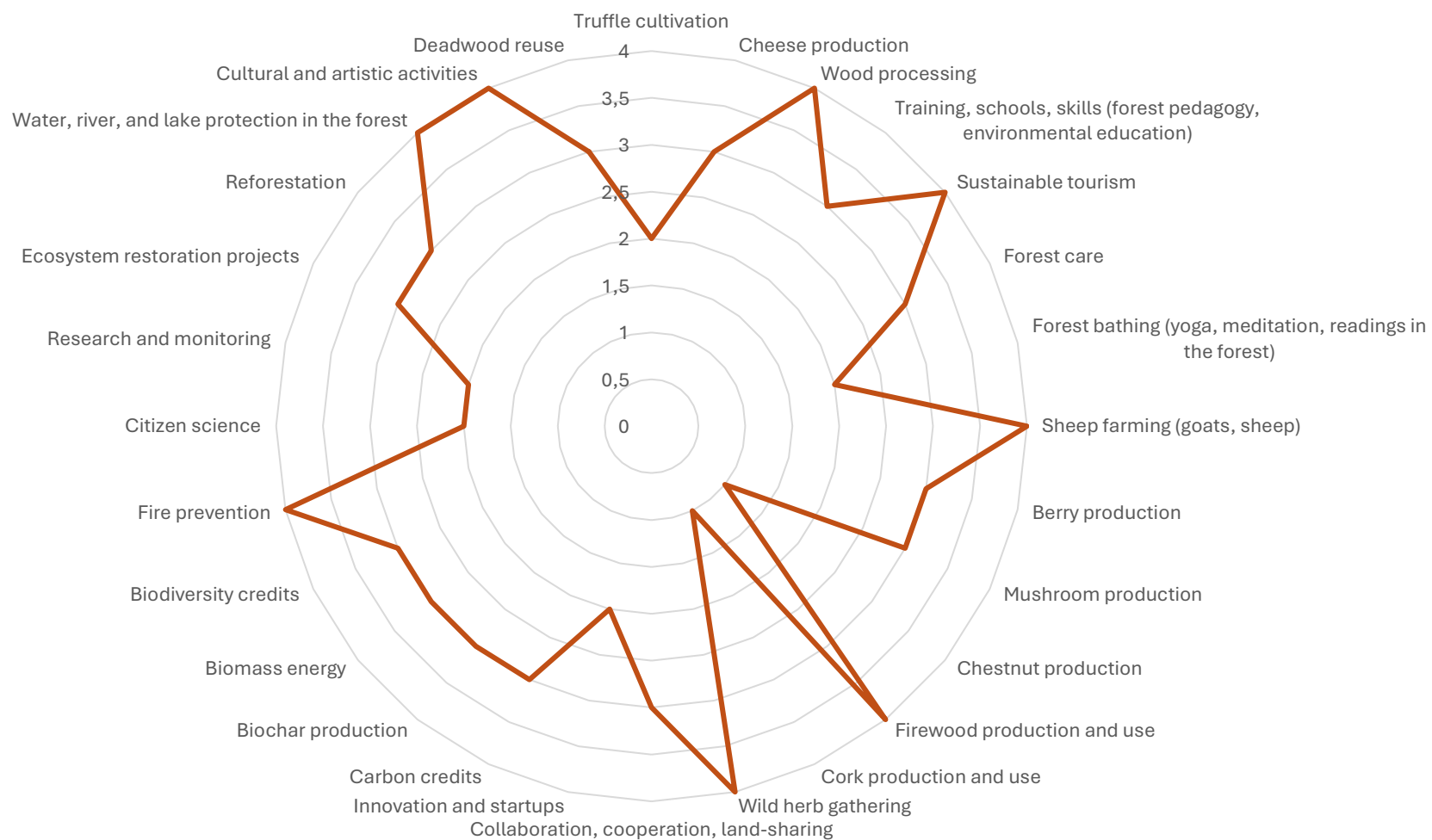Montagne Fiorentine Model Forest
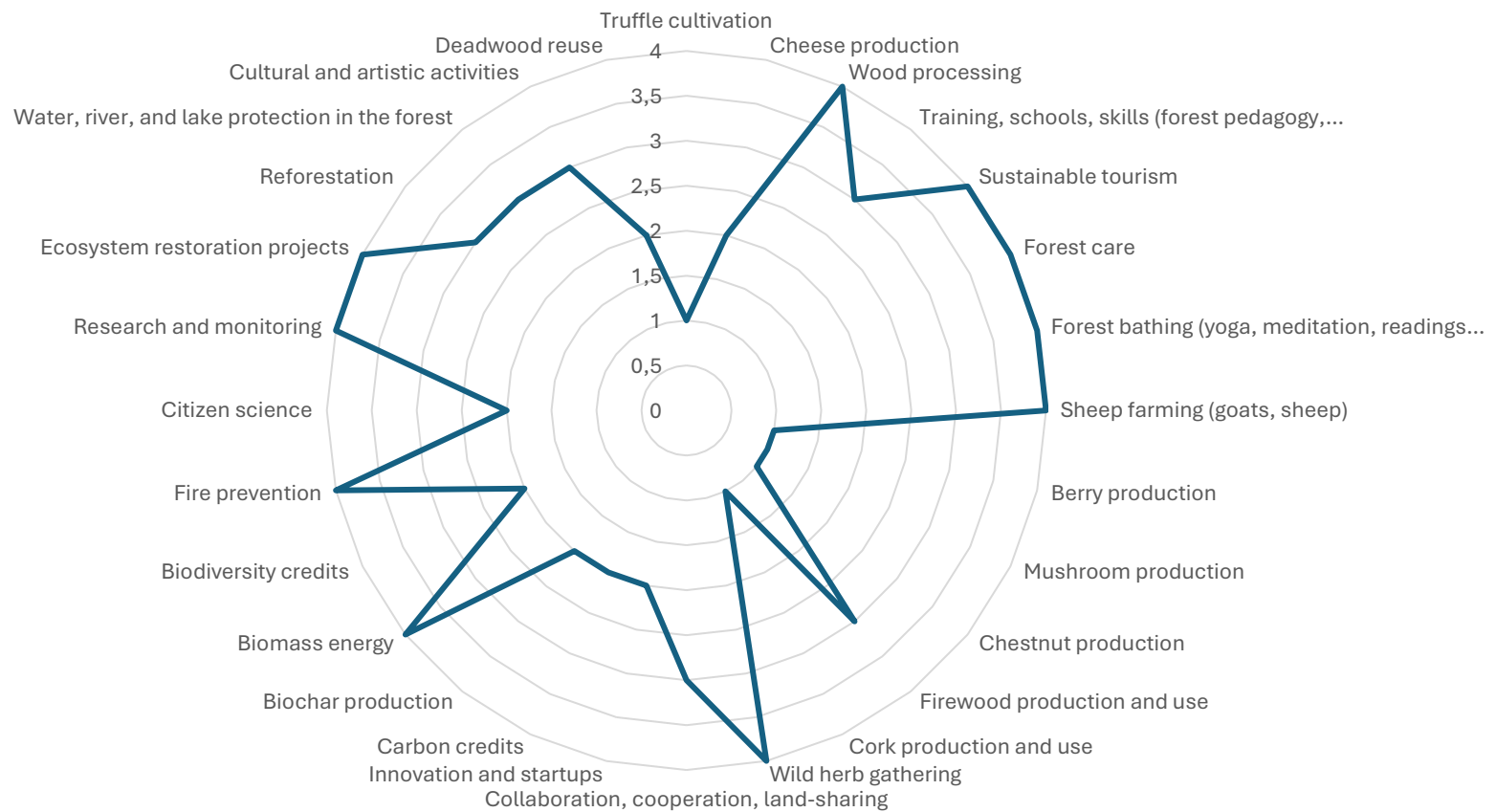
Model Forest Istria
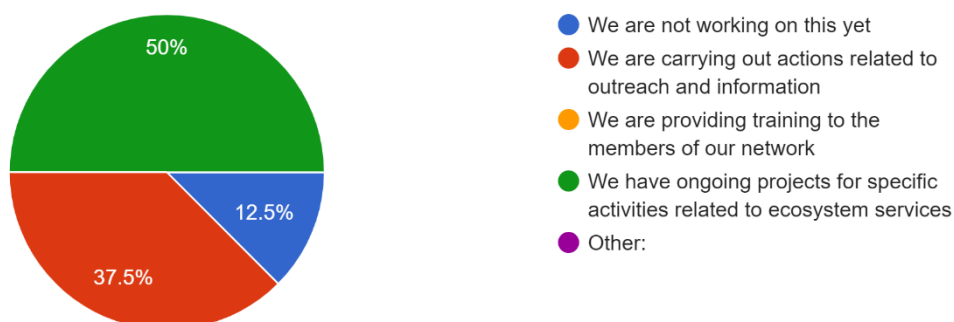
Forêt Modèle de Provence

Association forêt modèle Atlas Midelt

Shouf Model Forest

15

10. Are you already working on ecosystem services? In what way? What kind of activities?
8 responses

- ● We are not working on this yet
- ● We are carrying out actions related to outreach and information
- ● We are providing training to the members of our network
- ● We have ongoing projects for specific activities related to ecosystem services
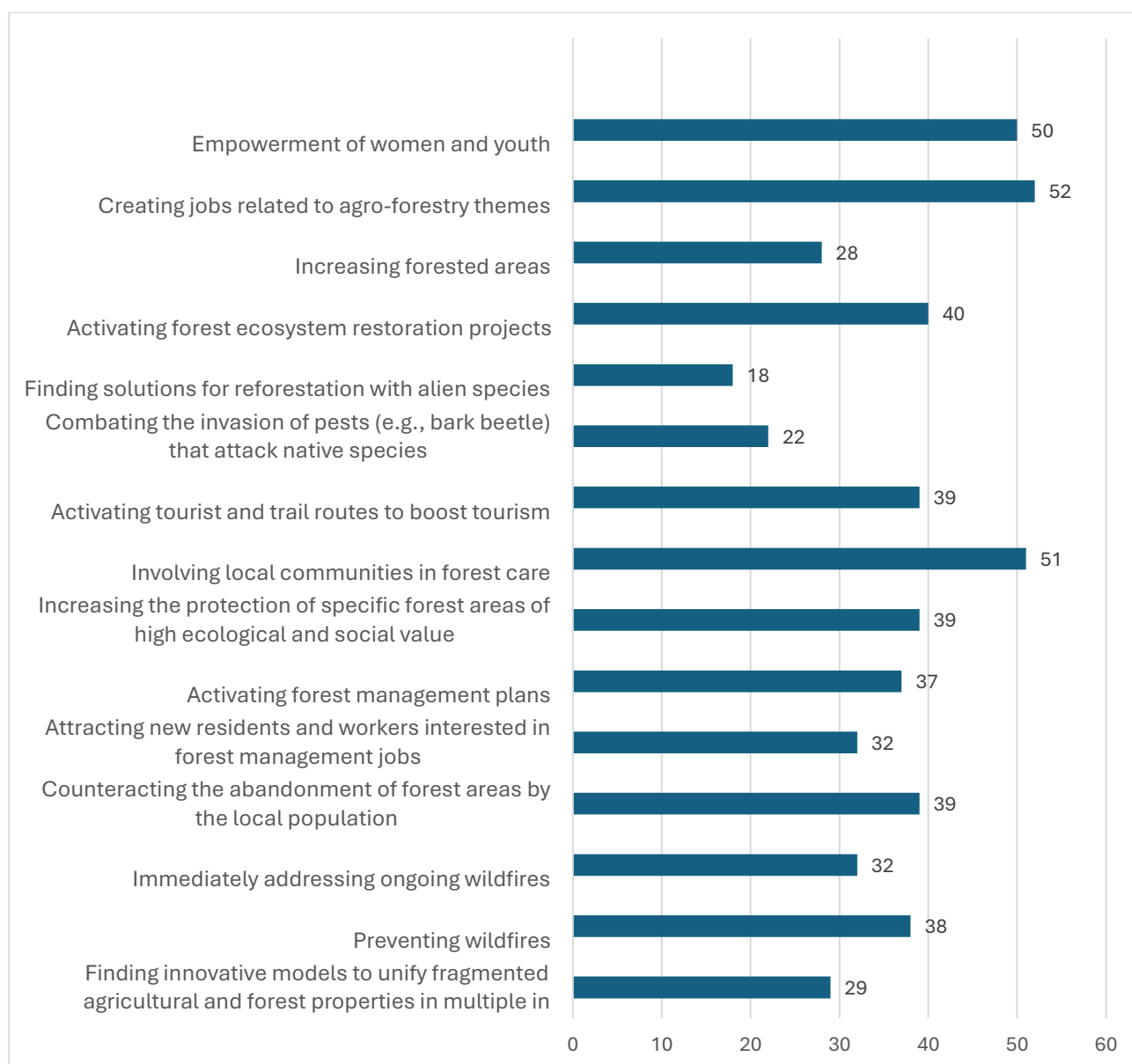- ● Other:

Hence, half of the Model Forest is already working on ecosystem services or at least carrying on actions related to outreach and information.

Each Model Forest shared a good practice to be discussed with other members of the network:

Model Forest	Topic	Good practice
Shouf	*Biomass Planning Ecotourism*	Setting up a specific management plan for sites, Management of Biomass, Ecotourism, and outdoor services related to sites, Customized FLR guidelines
Ifrane	*Education*	Working with schools
WESTERN MACEDONIA	*Forest events*	FORESTIVAL: a festival dedicated to the forest.
Aterno Valley	*Truffle Biochair Indicators Value chains*	Truffle; biochar; footpaths adoption; new enterprises tutoring, forest bio-indicators, survey on forest perception by local community, ecosystem-service related value chains
Montagne Fiorentine	*Forest therapy Biomass Certified wood Certified forest events Education*	The FOR.SA project related to forest therapy; the use of locally produced biomass through small-scale woodchip boilers for district heating of residential areas and facilities in the territory of the Forest Model; the "FMMF IL LEGNO" brand for materials produced within the Montagne Fiorentine Model Forest; summer camps and educational activities in schools for boys and girls; the "Festa Saggia" circuit, through which the FMMF certifies events by ensuring they meet certain sustainability and content standards.
Istria	*Business*	Plan to promote ecosystem services within private forest owners.
Provence	*Workshops*	Working on a new type of workshop on ecosystem services to explain the dynamics between tree species (for example, the guild of species around the cork oak for the shrub layer).
Midelt	*Ecotourism Biochar Empowerment*	Activities related to sustainable ecotourism and biochar production to empower women and rural youth in the area.

What are the most significant issues in the area of action of the respondent Model Forest?

The priority areas for the socio-economic development of the interest areas for the Mediterranean network are
(in brackets, the points for each answer out of a total possible value = 56):

1	Creating jobs related to agro-forestry (52/56)
2	Involving local communities in forest care (51/56)
3	Empowerment of women and youth (50/56)
4	Increasing the protection of specific forest areas of high ecological value Countering the abandonment of forest areas by local production Activating tourist and trail routes to boost tourism (39/56)

5	Preventing wildfires (38/56)

Finally, all the respondents confirmed their interest in participating in network projects related to ecosystem services, forest restoration, and job creation as a priority, it was mentioned:

1	Intercultural exchanges and visit
2	Shared EU projects
	Training and education programs
	Local projects to engage the community
	Sharing methodologies
3	Creation of educational and outdoor
	Improved communication