

# Green Jobs&Skills

## Challenges and Opportunities for Energy Agencies



**Filipa Newton** | EnR Chair of the Water-Energy Nexus Task Force, Coordinator of New Systems, ADENE, Portugal

**Hélder Rodrigues** | Team Leader, EnR Green Jobs&Skills Study



# Green and Digital Transition

## Upkilling and reskilling challenges and opportunities



**Green and Digital transition** must be socially just and anchored in new professional skills



**Skills** are at the heart of EU policy agendas for a sustainable recovery (Covid-19; RePower EU)



We need to **ReSkill to RePower**

**2023 European Year of Skills**



# Green and Digital Transition

## Upskilling and reskilling challenges and opportunities

The European Skills Agenda<sup>1</sup> (EC, 2020):

- Aims to achieve sustainable competitiveness, social fairness and resilience
- Set ambitious **objectives for upskilling and reskilling** to be achieved within the next 5 years
- Is anchored in the **European Green Deal**, new Digital Strategy, new Industrial and SME Strategies

Europe will only become a climate neutral continent, a resource efficient society and a circular economy with an informed population and **workforce that understands how to think and act green**

- **Action 6** of the Agenda aims at developing skills to support the **twin transitions (green and digital)**
- Investments will be supported through the long-term budget, reinforced by Next Generation EU

---

<sup>1</sup> European Skills Agenda (EC, 2020) - <https://ec.europa.eu/social/BlobServlet?docId=22832&langId=en>



# Green Transition

## Upskilling and reskilling challenges and opportunities

- **Action 6** of the new European Skills Agenda – a set of measures to be fostered by the EC:
  - Definition of a **taxonomy of skills for a green transition**, allowing statistical monitoring;
  - Definition of a set of indicators to **monitor the evolution** of green skills, with the Member States;
  - Development of the **European competence framework** in education for environmental change, environmental issues, clean energy transition and sustainable development → different levels of green competence;
  - Support for the development of a **set of green skills** essential for the labor market;
  - Support for the **integration of environmental and training aspects** into the different levels of education and VET



# Green Transition

## Upskilling and reskilling challenges and opportunities

- **RepowerEU**: Energy transition and decarbonization at an unprecedented speed! **Some highlights**

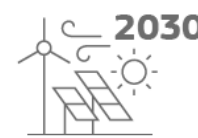
- Increase energy efficiency targets

2030

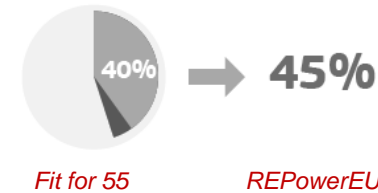


**New Energy Efficiency Target**

- Accelerate roll-out of renewable energy



2030



**New Renewable Energy Target**

- Encourage industrial decarbonization
- Regulatory measures to increase energy efficiency in the transport sector
- Diversification of energy supplies





# Green Jobs: challenges and opportunities

## Energy Agencies Role'

- European Energy Agencies:
  - ✿ Have a historic role in the study and deployment of **new solutions**
  - 🔥 European Energy Agencies **shall participate in this process** (*European Skills Agenda Action 6 developments*), assuring coherence of green skills with public policies and market instruments
  - ☀️ This alignment is key to fully address the challenges and seize the opportunities within the **energy transition** and **climate adaptation**, including the **water-energy nexus**
  - 💧 Several **projects developed by European Energy Agencies** focus on new and needed skills for energy and water-energy nexus → important contributors to this alignment



# Green Jobs: challenges and opportunities

## Objectives & targets of this study

- Contributing, through the Energy Agencies, to strengthening **sustainable competitiveness**, as set out in the **European Green Deal** and reinforced by the challenging ambitions set out in **RePowerEU**
- Highlight **needs and profiles** towards **training, upskilling and reskilling** to enable energy transition and water-energy nexus, particularly in buildings and cities
- **Identify new green jobs opportunities and challenges**, building on projects results (from Agencies and others), fostering **new skills to strengthen climate transition** (including the **water-energy nexus**)
- Foster **dissemination of results and implementation**, at the European level, of new initiatives, **green jobs and green skills profiles**, namely the ones developed by European Energy Agencies, such as the WATTer Skills roadmap, fostering new water-energy nexus skills **WATTer Skills roadmap<sup>2</sup>**.

---

<sup>2</sup> WATTer Skills ERASMUS+ Project (2017-2020), <https://www.watterskills.eu>



# Green Jobs: challenges and opportunities

## Objectives & targets of this study

- Target audiences and key stakeholders:
  - European Commission
  - European Energy Agencies
  - European National Agencies for education
  - The European Centre for the Development of Vocational Training (Cedefop)
  - Vocational training and professional qualifications in EU Member States,
  - National and Local Authorities
  - Building and construction sector, trade union and employer associations
  - Pan-european organizations on EU public policies.







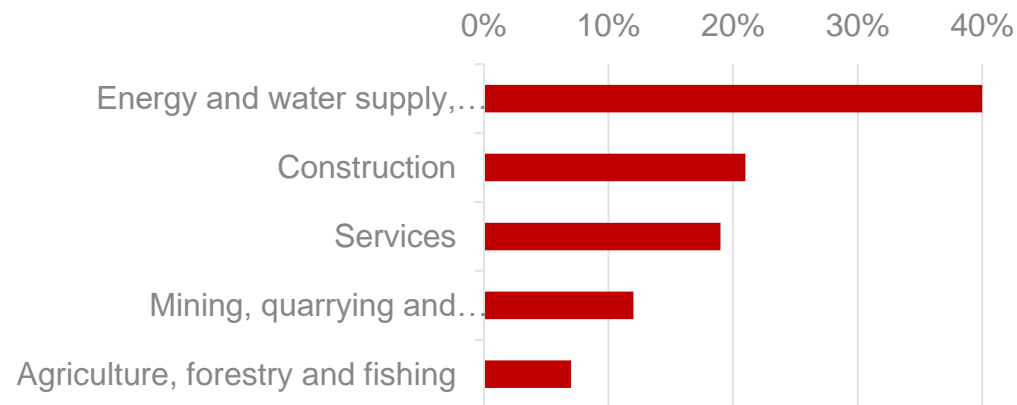
# Green Jobs: challenges and opportunities

## Scope definition

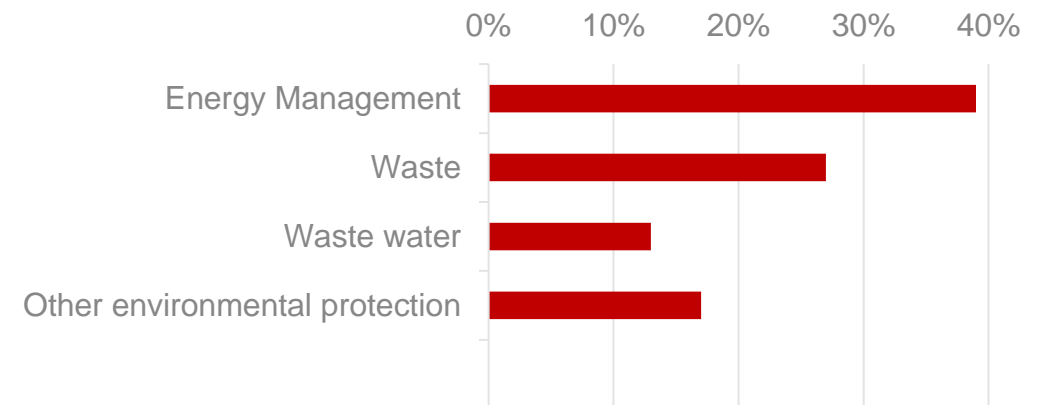
Sectors

where Energy Agencies have a role &  
where most green value has been added

By NACE activity



By Environmental domain (across NACE)



<sup>3</sup> NACE activities according to NACE System



# Green Jobs: challenges and opportunities

## Scope definition

4 Sectors comprised in the study → the majority for the current green value added



Electricity, gas, steam and air conditioning supply



Construction



Water supply; sewerage, waste management and remediation activities



Transportation and storage



# Green Jobs: challenges and opportunities

## Methodology

- i. Assessment of national and European **skills needed to achieve energy targets, climate transition and water-energy optimization** in buildings and cities
  - ii. Analyses of case studies and **green job profiles** studied and developed on **recent European projects** (e.g. **WATTer Skills and other projects** led by European Energy Agencies)
  - iii. **Alignment** of the identified green jobs **with the European Skills Agenda goals, RePower EU, others**
  - iv. Proposal of **new main green jobs** to include in the European Skills Agenda
  - v. Diagnosis of **barriers and bottlenecks** and **strategies for overcoming** them
  - vi. **Roadmap and guidelines** for **adoption and implementation** of the study findings and proposals
-



# Green Jobs: challenges and opportunities

## Methodology

- vii. **Thinking Group Meeting, stakeholders' engagement** and consultation on the preliminary findings
- viii. Review and further recommendations
- ix. **Contributions to the European Skills Agenda Action 6**, particularly the definition of a set of indicators to monitor the evolution of green skills and the development of a set of green skills essential for the building and construction labor market



# Green Jobs: challenges and opportunities

## Some expected Results

- Report on **opportunities and challenges** of new green jobs fore EnR agencies and Europe
- Identification for inclusion, in the European Skills Agenda, of a **set of green skills / job profiles** essential for the building and construction labor market (including profiles going beyond energy sector, such as water-efficiency and water-energy nexus profiles)
- Dissemination of best practices including specific case studies
- Discussion of **other current challenges for green jobs and skills**: workforce shortages, gender imbalance, “winners and losers” of green transition and climate change impacts, net impacts

**Thinking Group Meeting**

---

# Green Jobs&Skills

## Survey Results







# Green Jobs&Skills Survey

**Steering Committee** ■

- ADENE
- CRES
- ADEME
- RVO
- dena
- EWA

**Surveys** ■

- SEDA
- AEA
- IDAE
- MOTIVA
- SIEA
- BFE
- EST



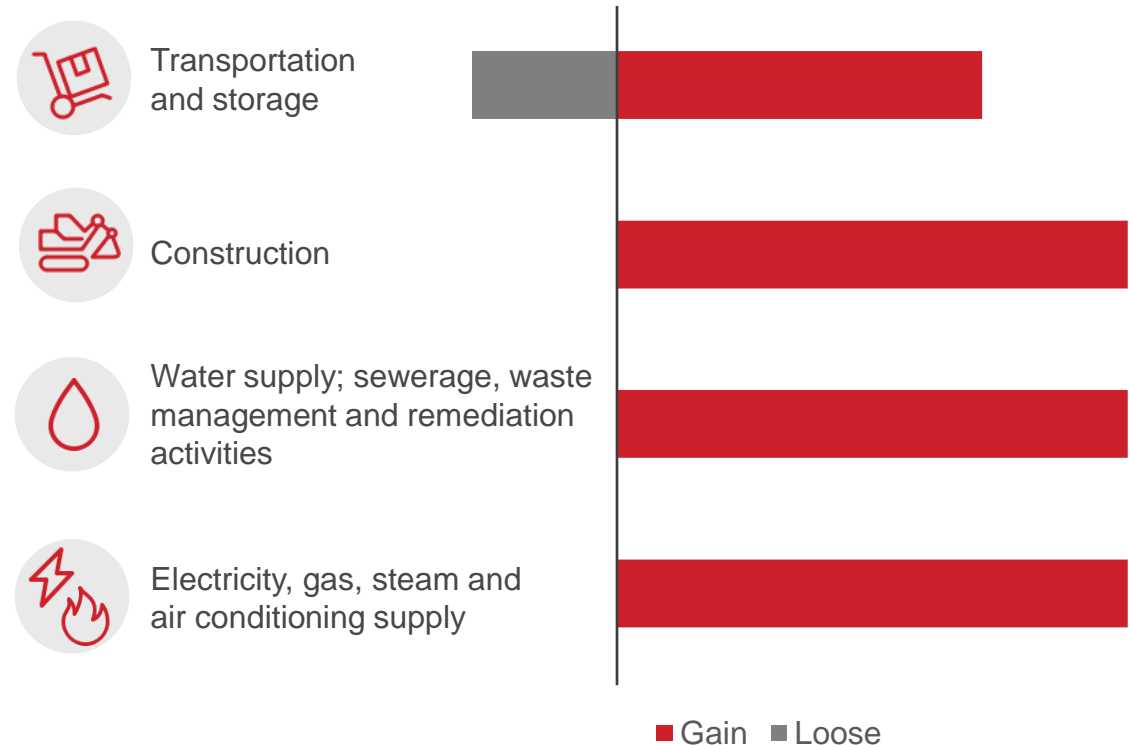


# Survey Analysis

Opportunities and solutions for green job and green skill training/upskilling stimulus

- The agencies are confident that most sectors will show a net benefit from job greening, transportation and Storage is the only core sector of this study where concerns are visible
- The agencies see potential for action in the Green Jobs topic: as facilitators, highlighting energy sector challenges regarding green jobs

## Gain or Loose from Job Greening





# Survey Analysis

Opportunities and solutions for green job and green skill training/upskilling stimulus

Some **specific opportunities** are put forward by the agencies:



- Develop and implement **training** of identified green job profiles or skills



- **Monitor** current public policies and stakeholder initiatives, as well as provide **input** for improvement



- Create and operate **assessment frameworks** that stimulate job greening and accelerate the sharing of good practices



- Nudge existing networks or create new ones, in order to **support** the necessary activities on the topic



# Survey Analysis

## Agency's role and other relevant stakeholders

- Most agencies can identify **other agencies or similar bodies in their country** that offer green skills training
- A **minority** of the energy agencies have a **formal role** related to green jobs



Monitoring impacts on the labour market



Project selection for financing



Certificates of Professional Qualifications

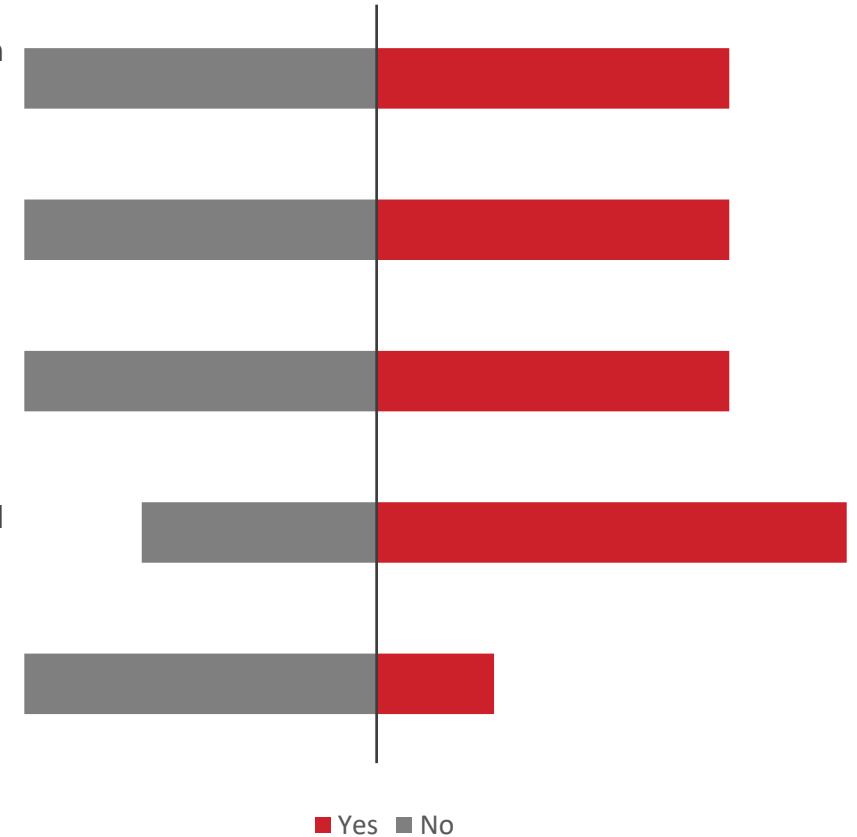


Competence and Skill definition



Policy design

### Current Roles of the agencies





# Survey Analysis

## Green Jobs and green skills

- Some energy agencies reported that their respective countries have: started a plan for monitoring green jobs and skills (e.g., Spain, France, Greece) or are now building such monitoring systems (e.g., Switzerland) or do not have such observatories in place (e.g., Finland, Portugal)
- In all sectors evaluated in this study, green skills are considered very important. Nevertheless, in “Electricity, gas, steam and air conditioning supply” more and in “Transportation and storage” less
- Agencies reported that a minority of the countries have councils, or sectorial or regional organizations, for green jobs training, but when these exist energy agencies usually are part of them (showing that indeed their inputs are seen as valuable)



# Survey Analysis

How to overcome bottlenecks

## Challenges and barriers

Lack of cross-sectorial knowledge



## How to overcome

involve all relevant stakeholders + define country stakeholders' action regarding Green Jobs + Green jobs public policies

Work force shortage



attract talent by finding out what is most valued by the different profiles of employees and + anticipate the demands of the market

Inadequate vocational and/or professional training



investment in training (scholarships/fundings) + define green jobs profiles + green skills





# Survey Analysis

How to overcome bottlenecks

## Challenges and barriers

Lack of legislation in some sectorial “Green Areas” (i.e. Treated wastewater reuse)



## How to overcome

EU Directives/Regulation and/or country level legislation

Lack of public information on green jobs / areas / sectors






EU/National public awareness campaign + observatories to centralize information



# Survey Analysis

## Main conclusions

-  Agencies do not see energy transition and decarbonization causing a reduction of the number of jobs in the evaluated sectors, but rather causing a shift on the skills needed, which creates social challenges and ultimately endangers climate change mitigation goals
-  Most agencies are not consistently active on the topic of green jobs & skills but acknowledge its importance for their mission, although the potential role of agencies is dependent on national context
-  Successful diverse examples of action on this topic were collected, that are a learning opportunity for others, as well as possible future actions on the scope of EnR network, to ensure a coherent, just and efficient agenda on energy transition



# Survey Analysis

## Main conclusions

- ❁ Demand for acceleration of energy efficiency and energy transition targets across Europe creates **pressure on the job market**
- 🔥 Workforce shortages combined with lack of skilled workers are seen as major **bottlenecks**

**But the opportunities are huge**

- ⚙️ According to the ILO, **green jobs** help:
  - Improve energy and raw materials efficiency (including water efficiency)
  - Limit greenhouse gas emissions
  - Support adaptation to the effects of climate change



Directly linked  
with energy  
agencies  
mission



# Survey Analysis

## Main conclusions

- ☀ The national Energy Agencies are at the center of the energy transition and climate change mitigation, but many times overlooking skills & competences

However,

- 💧 Energy Agencies have a privileged position to ensure coherence between green skills' development and training and public policies or market instruments regarding energy efficiency, resource efficiency and water-energy nexus
- ★ Although the topic is not a high-level priority for most energy agencies, they agree that workforce shortages and a skills' gap are hindering Agencies ability to meet targets and policies being deployed

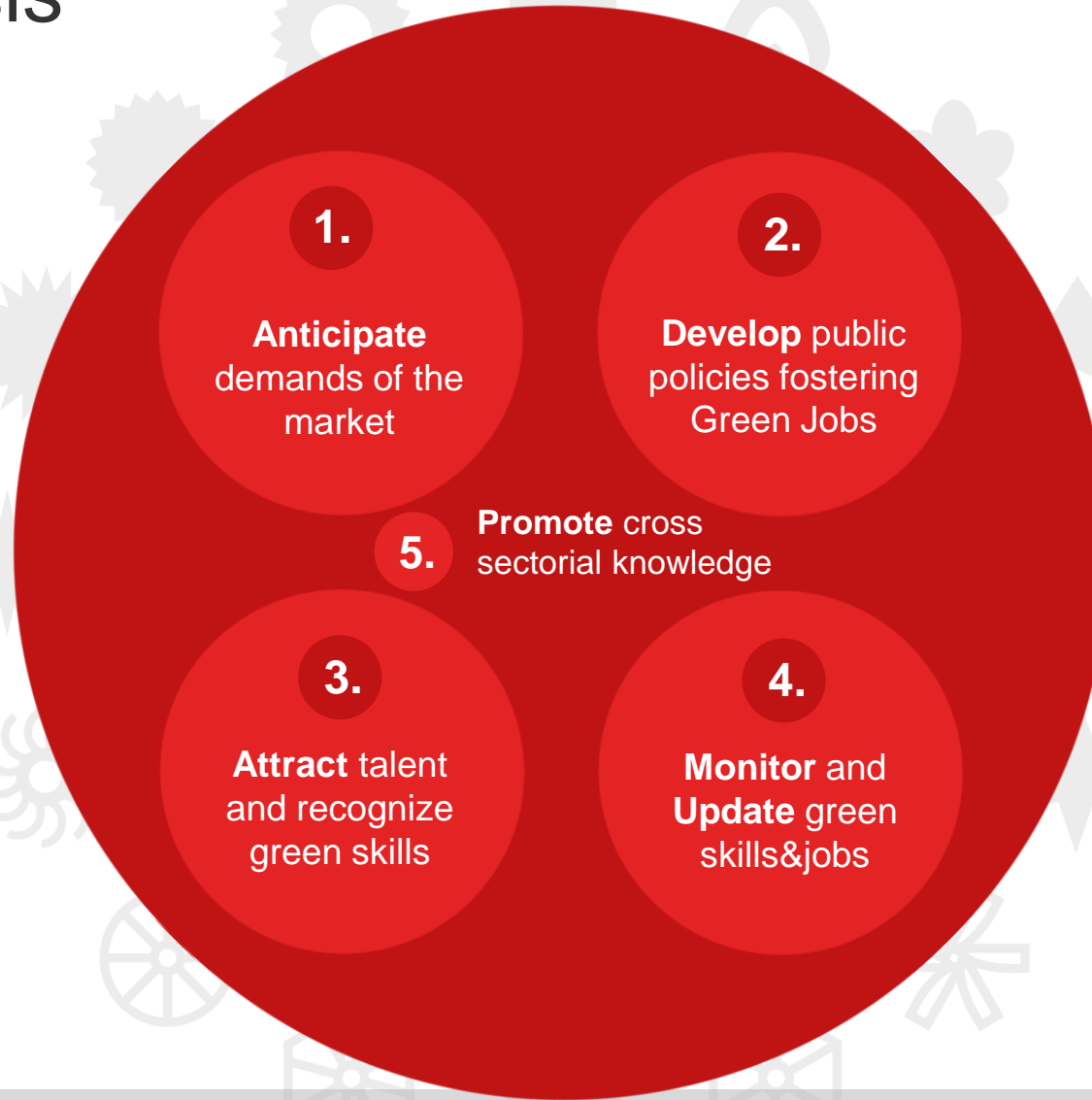
A great basis for a joint reflection today, at this Thinking Group Meeting

---



# Survey Analysis

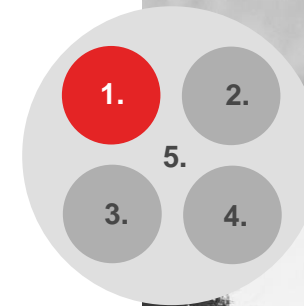
## Recommendations





# Survey Analysis

## Recommendations



### **1. Anticipate demands of the market**

1.1 Promote campaigns to raise awareness in technical staff & businesses about the importance of continuous updating of skills and on-the-job training

1.2 Carry out surveys to identify challenges and needs of the market in different sectors

1.3 Facilitate local and regional networks to deepen knowledge about training needs

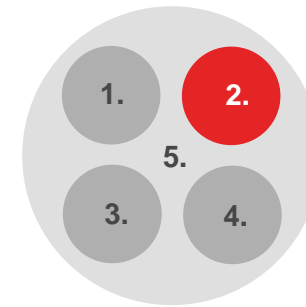






# Survey Analysis

## Recommendations



### **2. Develop public policies fostering Green Jobs**

2.1 Stimulate public procurement rules that consider environmental, social and justice criteria, fostering engagement of green jobs&skills in bidding companies

2.2 Propose public policies and legislative packages for climate action targets, integrating well-designed training programs required to meet them

2.3 Cooperate with training agencies in the elaboration of guidelines for the creation of new green job profiles

2.4 Collaborate with social partners to ensure reskilling for workers affected by job destruction associated with climate change as well as directing inactive workforce towards green jobs

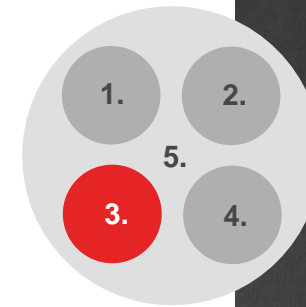
2.5 Be involved in the design of financing mechanisms to promote training, reskilling and upskilling of the workforce





# Survey Analysis

## Recommendations



### **3. Attract talent and recognize green skills**

3.1 Skills&competences certification for new professions and roles, with job profiles designed/redesigned according to the European qualifications framework (EQF)

3.2 Propose fiscal and social security policies to support companies that invest in a greener workforce

3.3 Encourage job offering platforms to label green jobs or green areas/sector

3.4 Cooperate with job creating and training agencies to set guidelines and good practices to help companies improve talent retention





# Survey Analysis

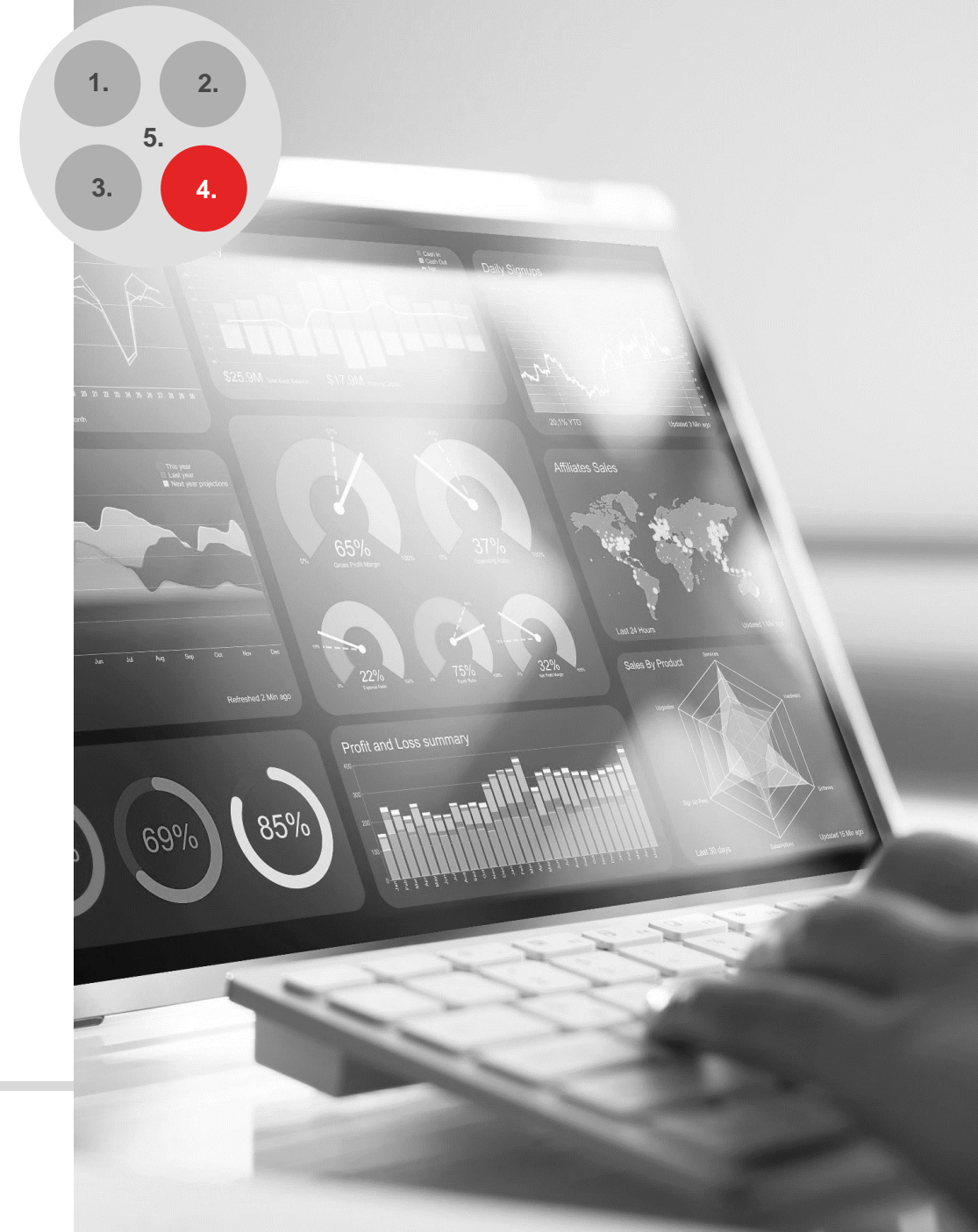
## Recommendations

### **4. Monitor and Update green skills&jobs**

4.1 Setting a common assessment framework (defining common KPIs), taking into account existing targets

4.2 Monitor evolving tendencies of economic sectors to calibrate profiles and green skills

4.3 Monitor the development of relevant professions

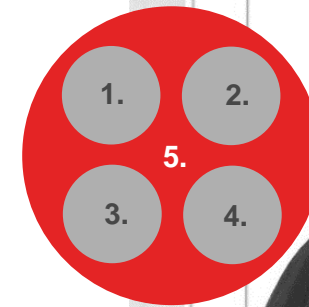






# Survey Analysis

## Recommendations



### **5. Promote cross sectorial knowledge**

5.1 Governance: Define each stakeholders' role and actions of regarding green jobs

5.2 Promote stakeholder regular meetings to discuss green jobs challenges and opportunities

5.3 Promote cross sectorial networks, connecting the market to education for initial education, as well as life-long learning

5.4 Develop or widen scope of observatories that centralize information on market needs, green jobs&skills requirements and training





# Thank you for your attention

---

➤ EnR Presidency 2022

[enr.presidency@adene.pt](mailto:enr.presidency@adene.pt)