



WORKSHOP
FARM SUSTAINABILITY DATA NETWORK
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POSITIVE EXPERIENCES WITH FSDN THE ITALIAN SURVEY.



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- **FSDN variables in the Italian survey**
 - **Use of FSDN variables for environmental and social analysis**
 - **Use of FSDN for CAP Management**
 - **Dashboard for farmers and tools for the benchmarking**
 - **Data sharing**
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ITALIAN FADN vs EU FADN

- Higher number of variables
- High level of details for certain variables
- Estimation of costs and gross margin for production processes

Categories	EU FADN	IT FADN
Types of machinery and equipment	0	300
Types of farm buildings	0	70
Types of soil (physical characteristics and fertility)	0	20
Arable and permanent crops	<100	380
Animal species and categories	<30	100
Types of crop products (main and processed)	<50	54
Types of livestock products (main and processed)	<10	35
Categories of technical inputs (fertilizers, seeds, etc.)	<25	110
Subsidy types (EU, National, Regional)	<300	500
Total Variables (approximatively)	1,000	>2,500

Environmental variables

Water volumes of irrigation and fertigation
 Unit of N, P and K used in a single crop
 Use of crop protection products (toxicity class)
 Type of land use (minimum tillage/no-tillage)
 Cover crop (e.g., date of seeding, date of harvest)
 Altitude of farm (in m asl)
 Details on the use and production of renewable energy

Social Variables

Description of farmer's family (farm members, relationships, role, off-farm income, etc.)
 Gender balance: of manager, family members, seasonal workers
 Nationality of seasonal workers
 Educational level of farm manager
 Interaction with Producer Associations, Consortia, territorial entities
 Certifications: territorial marks (PDO, PGI, TSG) for productions and products
 Marketing channel

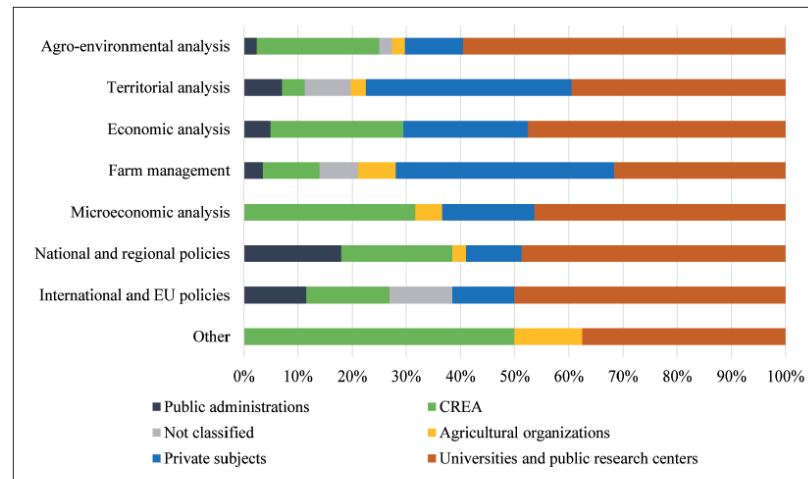
The Italian FADN collected more information than the EU FADN → the transition to FSDN is not extended to all the variables. Some environmental and social variables are already collected in the Italian system (FSDN: different detail, different aggregation, etc.).

Reasons → informative needs coming from the national research and policy system.

USE OF FSDN DATA FOR ENVIRONMENTAL AND SOCIAL ANALYSIS

The analysis of the use and users of FADN data in Italy highlighted the importance of the data for **agro-environmental analysis** and **territorial analysis**. In Italy, the most important users of FADN are the Universities and the public research centers (CREA → use for the analysis of national and regional policies impacts).

The availability of a higher number of environmental and social analysis is important in the Italian system (publication on reports, policy briefs, scientific publication, dissemination for farmers and advisors, etc.).



La RICA in Trentino: al via la rilevazione per l'anno contabile 2021

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	2020	2019	2018	2017	2016
Superficie (ha)	1.200.000	1.200.000	1.200.000	1.200.000	1.200.000
Produzione (t)	1.200.000	1.200.000	1.200.000	1.200.000	1.200.000
Valore (€)	1.200.000	1.200.000	1.200.000	1.200.000	1.200.000

Source: our elaboration on direct survey.



Use and users of FADN data in Italy
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USE OF FSDN DATA FOR ENVIRONMENTAL AND SOCIAL ANALYSIS



USE OF FADN DATA FOR THE EVALUATION OF AGRODIVERSITY IN THE ITALIAN FADN FARMS

Objective: classification of FADN farms in three levels of agrodiversity (high, medium, low) on the basis of a selected set of variables → easy index, repeated each year

Period: 2016-2020

IT FADN/FSDN variables: (i) Crop diversification and crop combination (six clusters); (ii) number of varieties; (iii) intercropping; (iv) woodlands or EFA; (v) livestock and combination of animals; (vi) nectar producing plants

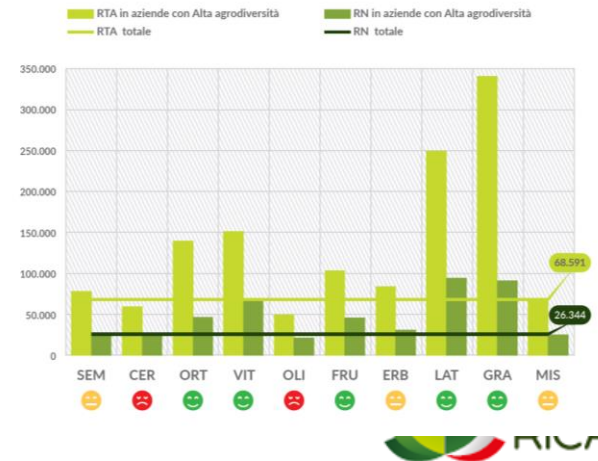
Biodiversity: difficult to assess with FADN data (local varieties?)

1 = present; 0 = not present

GLOBAL SCORE OF AGRODIVERSITY FOR EACH FARM: LOW (less than 2.5) – MEDIUM (2.5-5.0) - HIGH (more than 5.0)

Total revenues and Net revenues in farms with high agrodiversity per Farm Type vs average value

- Higher values for farms specialized in arable crops, horticulture, permanent crops, livestock (bovines for milk), granivores



USE OF FSDN DATA FOR ENVIRONMENTAL AND SOCIAL ANALYSIS



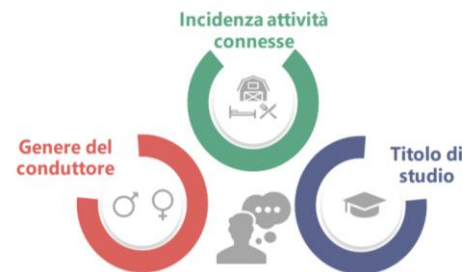
OFF-FARM INCOME

The Italian FADN collects information regarding the farm's family in term of components, farm employment and **off-farm income**. A specific analysis based on the off-farm incomes has stressed the importance of this category in the assessment of global farm income.

[https://agrireregionieuropa.univpm.it/it/content/article/31/51/luso-della-banca-dati-rica-lanalisi-dei-redditi-extra-agricoli-delle-famiglie#:~:text=La%20Banca%20dati%20Rica%20\(BD,con%20cui%20esso%20si%20form](https://agrireregionieuropa.univpm.it/it/content/article/31/51/luso-della-banca-dati-rica-lanalisi-dei-redditi-extra-agricoli-delle-famiglie#:~:text=La%20Banca%20dati%20Rica%20(BD,con%20cui%20esso%20si%20form)

WOMEN WORKING IN AGRICULTURE (REGIONAL ANALYSIS)

Gender, incidence of OGA on total farm activity, scholarization have been considered in an interesting analysis regarding women in agriculture.



USE OF FADN FOR THE ESTIMATION OF THE CARBOON FOOTPRINT AT FARM LEVEL

Methodology to reconstruct the GHG emission and the carbon footprint at farm level over the time, by farm typologies and territories (ICAAI/RICA project).

IMPRONTA CARBONICA
AZIENDE AGRICOLE ITALIANE



a cura di Silvia Codonari e Guido Bonati

Ricerca
e Bioeconomia

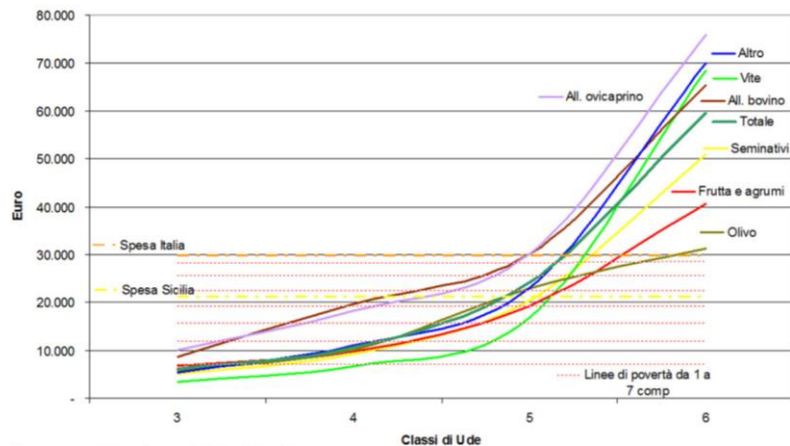


USE OF FSDN DATA FOR ENVIRONMENTAL AND SOCIAL ANALYSIS

Variable IT FADN: number of components of family members

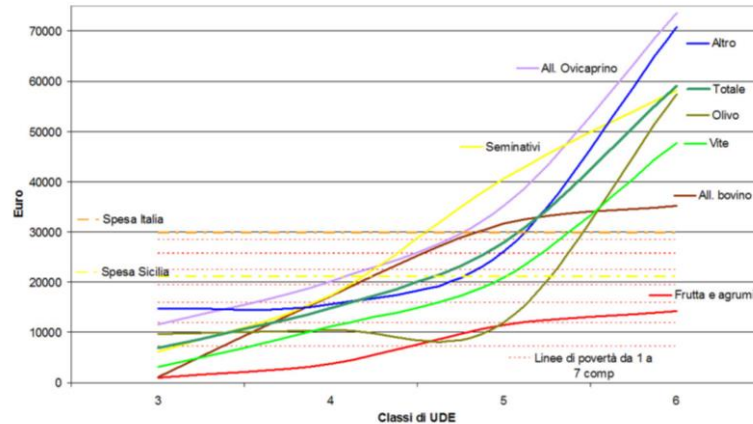
- ISTAT (National Institute of Statistic) estimates the poverty threshold on the basis of the number of family members (from 1 to 7)
- ISTAT: average household expenditure for Sicily and Italy
- Net Revenue of conventional vs organic farming per Farm Type and Economic Dimension (IT FADN)

Figura 1 - Redditi netti delle aziende convenzionali, soglia di povertà e livello di spesa delle famiglie in Sicilia ed in Italia



Fonte: nostra elaborazione su dati Inea Rica e Istat

Figura 2 - Redditi netti delle aziende biologiche, soglia di povertà e livello di spesa delle famiglie in Sicilia ed in Italia



Fonte: nostra elaborazione su dati Inea Rica e Istat

USE OF FSDN FOR CAP MANAGEMENT

Data collected through FSDN are also used for the CAP management.

<https://www.pianetapsr.it/flex/cm/pages/ServeBLOB.php/L/IT/IDPagina/2980>

<https://www.reterurale.it/flex/cm/pages/ServeBLOB.php/L/IT/IDPagina/4278>

- Italian FSDN is used for the evaluation of rural development programmes and rural development policies. Data are used in the quantification of most important indicators, for the justification of payments, for the impact analysis of the measures applied at farm level (counterfactual analysis, georeferentiation, gross margin per production process).



L'utilizzo della RICA
per la valutazione di programmi
di sviluppo rurale



Regular Articles

Vol. 23 No. 3 (2021): Current use and new perspectives for the Farm Accountancy Data Network

The use of FADN methodology to support the evaluation of business development plans in the RDP Sicily 2014-2020

Alessandra Vaccaro *, Ida Agosta *, Alessandro Monteleone *, Antonio Giampaolo *, Dario Macaluso *

DOWNLOAD PDF

DOI
<https://doi.org/10.3280/ecag2021oa13149>

PSAWEB → a web application based on FADN methodology, used by the Managing Authority of RDP in Sicily (2014-2020) to make available a Farm Development Plan, mandatory for the investments under the sub-measures 6.1 (Business start up aid for young farmers), 4.1 (Investments in agricultural holdings), 6.4 (Investment in creation and development of non-agricultural activities). Cooperation between MA and LA (CREA-PB).

DASHBOARD FOR FARMERS

- A web tool only for farms participating in FADN
- Access: CUAА (identification number) + individual PIN (generated by the LA)

Use: (i) monitoring the results of all the accounting years ; (ii) benchmarking (Farm Type, Macroarea, Economic Size classes)

<https://cruscottoaziendalegaia.crea.gov.it>

Cruscotto Aziendale di GAIA [Home](#) [Login](#) [RICA Italiana](#) [Contatti](#) [Note Legali](#) [Guida](#)

Cruscotto Aziendale

risultati contabili rilevati dalla RICA

Login



La finalità del Cruscotto Aziendale Gaia è quella di restituire alle aziende che partecipano all'indagine RICA Italia i propri risultati contabili attraverso un sistema di lettura e confronto di tipo temporale, spaziale e settoriale.

Le informazioni prodotte dal Cruscotto Aziendale Gaia possono essere utilizzate per il controllo della gestione, misurando la propria capacità produttiva e la propria efficienza strutturale, confrontandole con gli analoghi dati di aziende paragonabili per localizzazione, indirizzo produttivo e dimensione economica.

L'accesso alla procedura è riservato alle sole aziende contabilizzate nell'indagine RICA, nel rispetto delle norme nazionali e comunitarie sulla tutela dei dati personali (Reg. UE 2016/799 e Legge 101/2018). Qualsiasi uso non autorizzato è perseguibile per legge. Il responsabile della protezione dei dati conformemente al Regolamento generale sulla protezione dei dati e alle leggi nazionali sulla privacy è il legale rappresentante pro-tempore del CREA. Gli imprenditori agricoli che intendono entrare a far parte dell'indagine RICA Italiana possono compilare il [modulo di adesione](#).

A screenshot of the login page. At the top, it says 'LOGIN'. Below that, there are two input fields: 'CUAA' and 'Pin'. A red dashed oval highlights these two fields. To the right of the fields is a green 'Accedi' button. Below the fields, there is a small paragraph of text in Italian explaining the login process.

RICA ITALIANA



La RICA è un'indagine campionaria svolta in tutti gli Stati dell'Unione Europea. Rappresenta l'unica fonte armonizzata sul funzionamento delle imprese agricole.

Il quadro informativo della RICA Italiana, consente di realizzare:

- ✔ Analisi a livello aziendale
- ✔ Analisi a livello settoriale e territoriale
- ✔ Migliorare le performance economiche aziendali

Gli agricoltori interessati possono inviare la propria disponibilità ad entrare nella RICA.

11.100

Campione teorico (azienda)

602.300

Campo osservazione (azienda)

123.552

Bilanci aziendali

6.990

Utenti RICA

The farmer can continue to access the Dashboard even after leaving the FADN sample



The access credentials are transmitted to the farmer by certified e-mail, not through the data collector, in compliance with the rules of the GDPR.

The Farm dashboard (Cruscotto aziendale) is an online tool created for the farms participating to the Italian FADN. Farmers can have a feedback on their accounting and performance results.

DASHBOARD FOR FARMERS (FEEDBACK)

Cruscotto Aziendale di GAIA

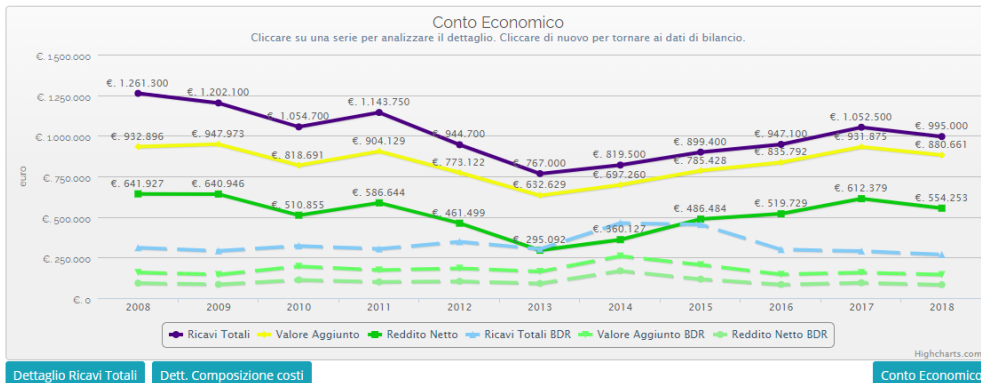
Home Schema di Bilancio Confronto Indici Aziendali Indici Temporali Esci

Azienda: [REDACTED]
ORTICOLTURA

Conto Economico

Stato Patrimoniale

Indici



The farm can visualize the calculation of economic and financial parameters (all the years of FADN participation).

Outputs:

- Financial statement (Balance Sheet + Profit and Losses)
- Farm indexes (based on the Financial Statement results)
- Time series for the most important economic results of the farm and indexes.

DASHBOARD FOR FARMERS (BENCHMARKING)

Cruscotto Aziendale di GAIA

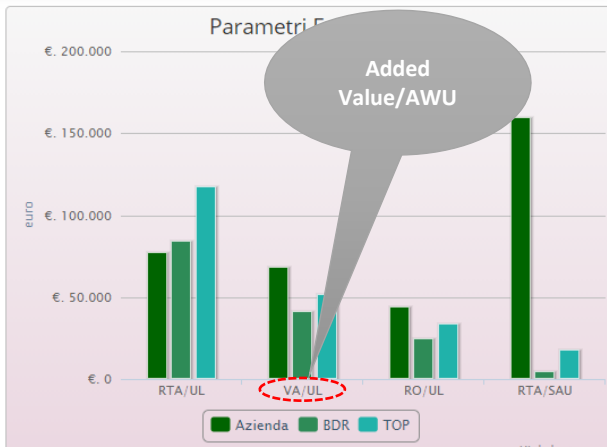
Home Schema di Bilancio Confronto Indici Aziendali Indici Temporali Esci

Farm:
HORTICULTURE Dashboard:

Economics indexes

Riepilogo dati Azienda

Esercizio Contabile	2018
Azienda	
Comune	
Partita IVA	
Cod. Fiscale	
Forma Giuridica	Società semplice
Forma Condizione	Con salariati
Reg. IVA Agricolo	Regime normale
Reg. IVA Attività Connesse	Attività connesse assenti
Ord. Tecnico Econ. Generale	2320 - Aziende specializzate in ortofloricoltura
OTE Particolare	Specializzate in vivai
Dimensione Economica	da 100.000 a meno di 250.000 euro
SAT (ettari)	3,76
SAU (ettari)	3,55
UBA (nr)	
Unità Lavoro (nr)	12
PS / RLS (€.)	210.687



The graph compared the economic indices of the farm with the average data of the benchmark group of the Italian RICA (BDR) database and the data of the best farms of the same benchmark group (TOP). TOP farms are extracted, using the quartile method, by evaluating the GFI / AWU index.

The farm indexes are compared with the results calculated as average for the same "benchmarking group" with the same Farm Type, Economic Size and Macroarea (north, centre, south).

Farm Type = TF14 level

The comparison is made among the farm, the average benchmarking group (BDR) and the "best" group having the same characteristics (TOP).

DATA SHARING

The Italian FADN system offers several examples of data sharing with and between other systems and to final users.

The data flows «from» and «to» FADN.

TO FADN → CLASSCE is an application used in Italy for the farm classification according to FADN Rules. Data collectors (or other subjects) can classify the farm on the basis of the area of crops and number of animals. **Some sections of the Farm Register are integrated in this tool and data can be used to verify farm structure or to decide if the farm is included or not in the sample.**

FROM FADN → the survey RICA-REA was made under UE Reg. 220/2015 (Economic Accounts for Agriculture- EEA)

RICA/FADN=farms with more than 8,000 € SO

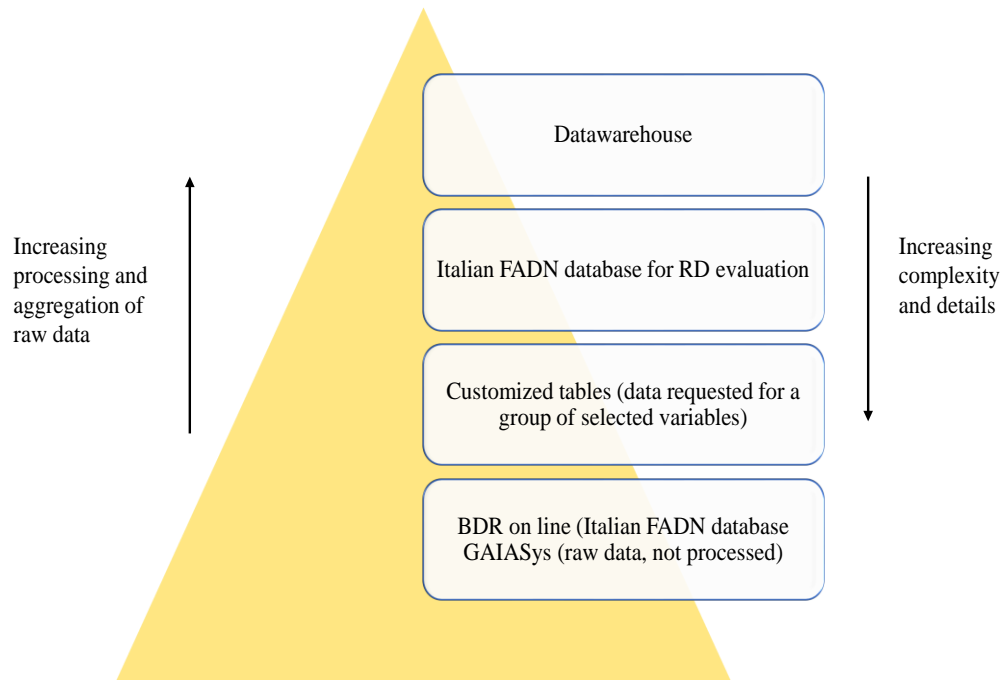
REA=farms with less than 8,000 € SO

FADN methodology was used to collect REA farms (a dedicated web tool, a simplified version of FADN).

The screenshot shows the 'Class.CE' web interface. At the top right, the user profile is displayed: 'Utente: Sonia Marongiu', 'Profilo: Utente RICA Regionale', and 'Regione: Trentino'. Below this is a navigation menu with buttons for 'Logout', 'NEWS', 'Richieste Profili', 'Gestione Elenchi', 'Gestione Elenchi ExtraRica', 'Gestione Schede', 'Elenchi Rilevatori', 'Lettera conduttore', 'SAL rilevazioni RICA', 'SAL rilevazioni REA', 'SAL rilevazioni SATELLITE', and 'Contatti'. A button labeled 'Fascicolo Aziendale' is highlighted. Below the menu are buttons for 'Links / Download', 'Modifica Dati Personali', 'Guida', 'F.A.Q.', 'Campione Teorico RICA', 'Importazione GAIA', and 'Duplicazione Anno Successivo'. On the right side, there is a 'Sei in: Pannello di Controllo » F' breadcrumb and an 'EXPORTA IN EXCEL' button. A 'LEGENDA:' section lists various codes and their meanings, such as 'Codice TipoConduzione: 1 pro', 'FlagIrrigua: 0 particella non irr', 'FlagTerrazzata: 0 particella ser', 'RotazioneColtureOrtive: 0 par', 'EffluentiZootecnici: 0 particell', 'SostanzePericolose: 0 particell', 'CodiZVN: zone vulnerabili ai ni', 'CodiceColtivazioneBiologica:', 'CodiceTipoSemina: 1 = tradizi', 'CodiceTipIrrigazione: 1 = so', 'CodiceProtezioneColture: 1 =', 'CodiceFaseAllevamento: 1 =', 'FlagColtPrincipale: 1 = coltura', 'MantPratiPermanente: 1 = Pa', 'Pratica stabilita nell'ambito delle', 'MantenSupAgricola: 1 = Ness', 'ProduzioneIntegrata: 1 = Si; 2', 'TipoImpianto: 1 = regolare; 2 =', 'TipoCertificazione: 0 = nessun', and 'TipoUtilizzoOливо: 0 = promisc'. At the bottom right, a technical error message is visible: 'SimpleXMLElement Object ([ISWSResponse] => Sim ([codRet] => 0 [Segnalazione (

DATA SHARING

FADN data shared with final users – several level of sharing and access.



Customized tables (→ request form limited to a set of variables) and the access to the BDR on line (→ after an agreement with the users) are the most important source of information for the research system.



Users and use of the Italian FADN have been monitored through (i) an analysis of the request forms (2011-2020) and (ii) a questionnaire for the recorded accounts having access to the platform.

THANK YOU FOR YOUR ATTENTION

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