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SMARTVillages

EUROPEAN REGIONAL DEVELOPMENT FUND

Detailed specification and backlog document for the implementation of the DEP

Work package: WP T2
Activity A.T2.2
Deliverable: D.T2.2.1

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Work package: WP T2
Activity A.T2.2
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This report showcases the specification for the implementation of the DEP, which focuses on the smartness evaluation process and the connection between the outcomes of WP T1 (smartness concept, smartness assessment, good practices) and WP T3 (Toolbox methods and methodologies) and their integration with the WP T2 output - the DEP.

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1 Final DEP requirements

The development of the Digital Platform (DEP) started with steps aimed at gathering the functional requirements of the platform. The requirements were identified and formed in joint collaboration of the SmartVillages` Project Partners. After the implemented analysis, the final functionalities list of expected functionalities was shaped, covering general CMS functionalities and domain specialized non-standard functionalities, that have crucial importance in the digital transformation of villages.

Supported general functionalities, like presentation sites, multi-language support, login with social media accounts, adding external resources, visualization of data, export functions for all data and metadata, news broadcasting and editorialized contents for a wide public, tag-based and criteria enabled search, common calendars, collaborative writing, thematic groups of interests, personal areas and others, present the basic Content Management System (CMS) functionalities and are supported within the majority of the existing CMSs [3]. However, to efficiently support the Smart Village transformations, Digital Platform needs to address additional specialized domains and implement some non-standard functionalities. Therefore, the SmartVillages Digital Platform also supports the following functionalities: (1) smartness assessment, (2) best practices, (3) matchmaking, and (4) collaboration [3]. The connection of key functionalities within the platform is presented in Figure 1. The figure presents a high-level view of the SmartVillages Digital Platform. Functionalities are built one atop another, aimed at providing a comprehensive set of tools and methods, allowing smartness assessment, supporting matchmaking and providing best practices [3]. Each of the non-standard functionalities is described in detail in the following subsections.
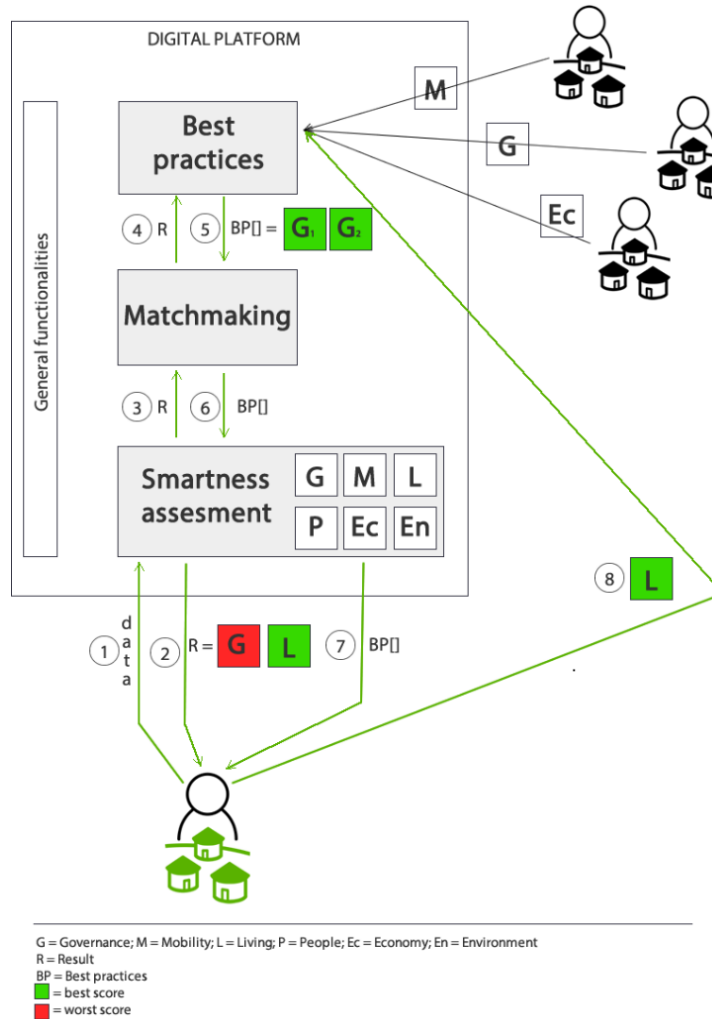
Figure 1: A high-level presentation of the interaction of the Digital Platform's key-component [3].

1.1 Self-assessing the smartness of a rural area

The implemented self-assessment functionality enables smartness assessment of the desired area with the help of guided analysis implemented following the methodology presented by [1]. The smartness is expressed within six smartness dimensions: (1) economy, (2) environment, (3) governance, (4) living, (5) mobility and (6) people. The result is included in the Digital Platform and used to support examination and graphical representation of the final results [3]. The service within DEP provides results that offers useful insight into the area's smartness, helping stakeholders in the decision of addressing the appropriate dimension, and in implementing the desirable and necessary steps towards the smart transformation of their own area [3].

1.1.1   Smartness assessment methodology

The novel methodology for assessing and rating the smartness of rural areas was proposed in [1]. The methodology uses an ELECTRE Tri multi-criteria-analysis method, allowing each interested rural or mountain area to assess its smartness. ELECTRE Tri [1] is a methodology allowing the self-assessment of the level of smartness, given a set of indicators and the creation of a weight vector incorporating the relative importance attributed to each of the six dimensions of smartness by the compiler [3]. The supported dimensions are:
- economy,
- environment,
- governance,
- living,
- mobility and
- people.

For each of the dimension four indicators of smartness has been proposed. Indicators have been adopted from the Smart Cities concept based on an analysis of their ability to be used for assessing and rating smartness in mountain areas and following specific work on the topic in [2,3]. The methodology also supports the rating of smartness using ad-hoc created categories, namely high, satisfactory, medium, and low level of smartness. The categories are defined according to selected numerical thresholds [3].

1.2 Gathering and providing the best practices

One of the supported functionalities within Digital Platform is also a knowledge base combining best practices. The collection of best practices is intended to enable interested areas to share feasible

activities on smart transformation, and to be inspired by actions fostering smart transformation uploaded by areas in similar geographical and socio-economical contexts [3].

Practices are gathered from different domains coinciding with smartness domains presented in Section 1.1. The villages that are willing to share their experiences and obtained knowledge with interested parties are requested to provide the best practice in their highest evaluated dimension based on the scores of conducted smartness assessment analysis. The input of best practices is done using a unified form, allowing quick retrieval and clearer usability [3]. The format highlights the smart dimension in which the best practice is intended, together with the relevant indicator(s) and highlighted keywords that are useful to connote and define each best practice [3]. Additionally, the prepared structured format significantly simplify the following matchmaking functionalities, connecting similar villages via different properties.

1.3 Matchmaking connections

The functionality that presents a connection between best practices and smartness assessment is matchmaking. The connection between mentioned functionalities is visualized in Figure 1. The matchmaking process allows the interested parties to find potential references for their starting steps of the smart and digital transformation [3]. Depending on the objective, matchmaking functionalities can be divided into three subsections: (1) village to village (v2v), (2) village to project test area (v2ta) and (3) village to business and vice versa (v2b and b2v) [3]. When matchmaking village to village the process is oriented to connect the villages with similar degree of smartness, matchmaking villages to project areas is aimed at sharing the successful experiences in smartness activities grouped by test areas, and village to business and vice versa matchmaking aims to connect people and companies so that they can collaborate in the development of goods and services in order to improve smartness capabilities [3].

A connection between interested parties is done considering the smartness assessment results. Therefore, the matching villages needing help within a specific dimension is matched to the knowledge and experience of another village that score highly in the same smartness dimension. In addition, the matchmaking functionality also provides a list of similar villages, based on connecting an interested party with its counterpart, using the content, requirements, region or smartness level [3].

1.4 Collaboration between interested parties

The Digital Platform combines different groups of stakeholders, whose communication is of particular importance for the facilitation of smart transformation. Therefore, one of the key DEP functionalities is the support of communication and collaboration. The platform allows

stakeholders, namely, project partners, project test areas, interested rural areas and general public, to communicate using document exchange functionalities (*DE*), forum (*FO*), events (*EV*) and gallery (*GA*) [3]. In order to maximize the efficiency of supported functionalities, the user access level differs according to their properties [3]. Table 1 presents the collaboration and communication matrix for four of the supported level of users. The Digital Platform supports collaboration and communication activities within the SmartVillages Project Partners and Project Test Areas, i.e. villages included in the SmartVillages Project, with the use of the forum, document exchange, events and gallery [3]. The communication is also supported with interested rural areas and the general public that are not a part of the SmartVillages project. They are able to communicate with Project Test Areas through the forum and follow project activities through events and gallery [3].

Table 1: Collaboration and communication functionalities (FO – forum, DE – document exchange, EV – events, GA – gallery) supported within the Digital Platform [3].

	Project Partners
Project Partners	*FO, DE, EV, GA*
Project Test Areas	*FO, DE, EV, GA*
Interested Rural Areas	*EV, GA*
General Public	*EV, GA*
	Project Test Areas
Project Test Areas	*FO, DE, EV, GA*
Interested Rural Areas	*FO, EV, GA*
General Public	*FO, EV, GA*

2 Architectural backbone

2.1 Technical architecture and Framework

2.1.1   The smartness assessment process

The smartness assessment process involves activities that offer a set of pre-established good practices and tools to bring these practices into the real world. The final recommendations of the smartness assessment process are offered to the assessor based on lack of smartness of the village detected by smartness questionnaire, the viewpoint of accessor, knowledge base of pre-established good practices, and available method and techniques.

The integration of ASSESSMENT & TOOLBOX with DEP consists of two main phases:

1. **Smartness assessment** (results of the questionnaire),
2. **Matchmaking process** (matching good practices and toolbox methods with the village questionnaire results).
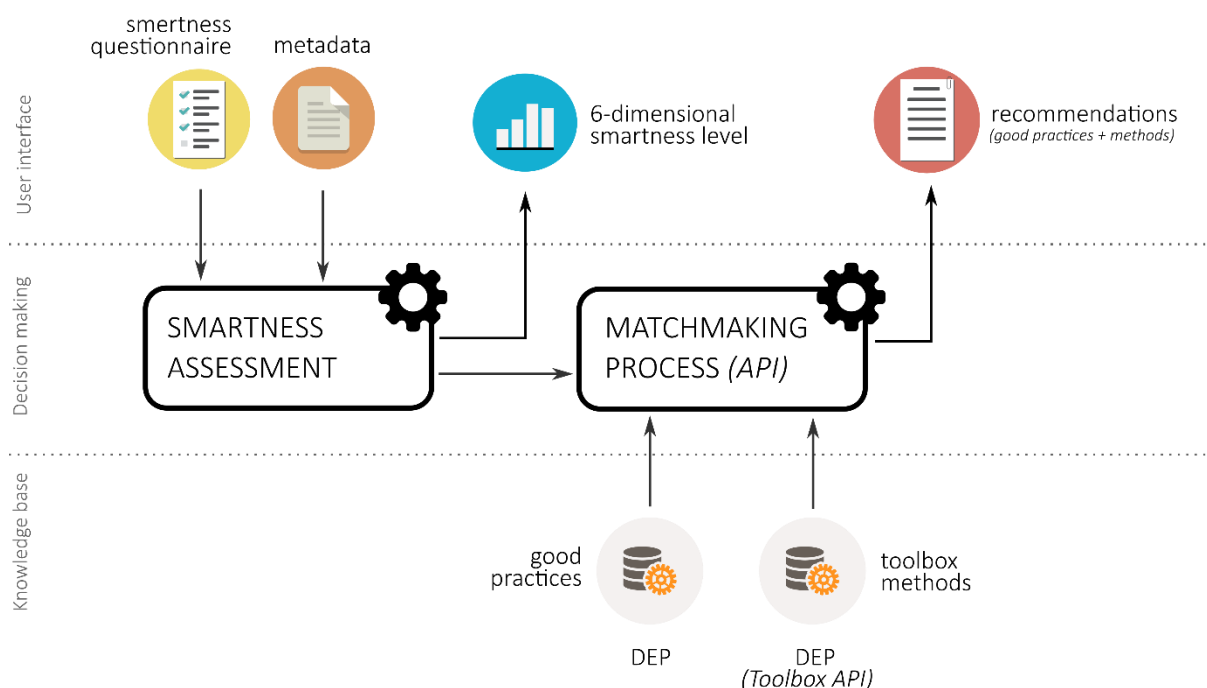

Figure 2: A high-level presentation of the integration of ASSESSMENT & TOOLBOX with DEP.

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2.1.2 The phases in the smartness assessment process

1. **The smartness assessment**
2.

Goal. The main goal of the smartness assessment phase is to capture any lack of smartness of the assessed village based on six dimensions of smartness proposed by the smartness model. Potential possibilities of improvement are captured by the smartness questionnaire and context metadata provided by an assessor.

Input #1: Smartness questionnaire
The smartness questionnaire consists of two main parts, namely metadata and evaluation questions. The metadata outlines the basic characteristics of the village being evaluated.

Key metadata attributes used in the questionnaire are:
- **name** of the village *(user input)*,
- **country** in which the village is located *(user input)*,
- **kind of** the village *(choice: city | village | municipality | local area)*,
- number of **inhabitants** *(numeric user input)*,
- **assessor age** *(choice: 18 – 25 | 26 – 50 | 50+)*,
- **assessor type** *(choice: policy maker | academia | business | citizens)*.

The central part of the smartness questionnaire consists of 24 evaluation questions divided into six sets. Each of the question sets represents one of the dimensions of smartness. For each question, the assessor can choose from the four options offered, and optionally provide a comment on the question. The smartness model predicts following dimensions of smartness:
- Smart People,
- Smart Governance
- Smart Living,
- Smart Environment,
- Smart Economy
- Smart Mobility

Output #1: The Smartness Assessment Model
Based on the answers to the questions of the smartness questionnaire, a 6-dimensional assessment model of smartness is created. Each of the six smartness dimensions is ranked by a numerical value at the interval between -1 and 1, denoting 1 the best score of the smartness conformity and -1 the worst score of the smartness conformity. Furthermore, a created 6-dimensional assessment model is visualized on the user interface as a bar chart.

3. The matchmaking process

Goal. The key objective of the matchmaking process is to generate a list of recommendations in the form of good practices and methods adapted to the needs of the assessor. The matchmaking process is based on the 6-dimensional smartness assessment model created in the previous phase of the process.

Input #1: 6-dimensional smartness assessment model

The smartness assessment model is created based on the questionnaire in the phase of smartness assessment. Numeric scores of smartness represented as dimensions in the model along with the metadata represent the base ingredient of the recommendation creation process, as it determines the direction of desired improvements.

Input #2: Catalogue of good practices

The knowledge base of good practices represents a collection of good practices from the domain of smart villages that have been proven in practice over the years and collected in the regions of the special scope of the project. Each of the good practices in the catalogue is described by mandatory and optional attributes. The key ones are:

- **Title** of the good practice – meaningful title of the good practice,
- **Short description** – concise description of the good practice *(user input)*,
- **Country** – country of origin *(user input)*,
- **Region** – region of origin *(user input)*,
- **Town** – town of origin represented by the pin on a map *(user input)*,
- **Category** of smart dimension *(choice: Smart Economy & Smart Environment & Smart Governance & Smart Living & Smart Mobility & Smart People)*,
- **Applicable in rural**, non-city areas *(choice: Yes | Maybe | No)*,
- **Region level** *(choice: NUTS 1 | NUTS 2 | NUTS 3)*,
- **Affecting** – **scale** *(choice: Village | City | Municipality | Local Region)*,
- **Affecting** – **population** *(choice: Youth & Elderly & Students & Active Working People)*,
- **Timescale** – start and end date of duration of good practice *(user input)*.

The catalogue of good practices can be found online at https://smart-villages.eu/good_practice/.

Input #3: Catalogue of toolbox methods and techniques

The toolbox provides a collection of methods, methodologies and techniques that can be applied in real-world scenarios of introduction of good practices of smartness in real environments. Each of the methods or techniques in the catalogue is described by mandatory and optional attributes.

The key mandatory attributes are:

- **Title** of the method – meaningful title of the method *(user input),*
- **Short description** – concise description of the method *(user input),*
- **Description** – extended description of the method *(user input),*
- **Category** of smart dimension *(choice: Smart Economy & Smart Environment & Smart Governance & Smart Living & Smart Mobility & Smart People),*
- **Affecting** – **scale** *(choice: Village | City | Municipality | Local Region),*
- **Affecting** – **population** *(choice: Youth & Elderly & Students & Active Working People),*

Additional attributes that are crucial to the decision-making process may be refined in the future.

The toolbox with the available methods and techniques can be found online at https://xd.adobe.com/view/67882c54-b5ef-492c-56d2-41266a5a4712-11b9/screen/470ccfe1-53bf-48f1-8d46-b9f239b54e97/Prototip-2-2-2/?fullscreen

Output #1: Recommendations

In the end, the output of the matchmaking process is a list of recommendations adapted to the profile of an assessor and the context of the smartness of the village. One or more suggested recommendations consist of good practices that have previously been established in the region and have been proven to work in real-life scenarios. Beside good practices, recommendations also offer useful methods and techniques that describe guided approaches to achieve the goals set.

The structure of recommendations provided by API follows the following structure:

Matchmaking process API returns a **recommendation**, whereby returned recommendation consists of:

- list of **good practices** (identified by unique ID) that improves the smartness,
- list of **methods or techniques** (identified by unique ID) that help achieve the goals.

2.1.3   The technical view of the solution

The integral solution of the smartness assessment process consists of several independent systems (e.g. smartness assessment and matchmaking) and knowledge bases (e.g. collection of good practices and toolbox methods). To ensure flexible and technologically independent communication between subsystems and knowledge bases, REST API are chosen as an interface between subsystems of the solution. The implementation of interfaces using REST API technology ensures high degree of interoperability in the terms of data exchange, and at the same time independence in technology selection at the level of each research group.

The design of the REST API should follow next architectural principles of REST APIs:

- Every publicly exposed resource (e.g. data entity or system's capability) should be reachable though a unique identifier (URL).
- The format of URL addresses of resources should follow the guidance of URL formatting,
- Resources can be manipulated exclusively using basic HTTP methods (GET, PUT, DELETE, POST), the HTTP methods must be used in accordance with their original purpose.
- Communication should be stateless.
- All interactions between subsystems should be exchanged using representations. By default, subsystems are expected to expose their capabilities at least in JSON format.

To facilitate the use, the exposed REST APIs should be well documented. To ensure online availability of REST API documentation, Swagger is suggested as a documenting framework.

2.1.4 Smartness assessment API architecture

POST: /api/matchmaking/

Input:

1. Smartness Assessment (smartness questionnaire assessment (6-dimensional model) + metadata)

```
JSON:
[
    "metadata": {
        "name" = "string",
        "country" = "string",
        "kind" = "string",
        "number_of_inhabitants": 0,
        "assessor_age" = "string",
        "assessor_type" = "string"
    },
    "smart_assesment": {
        "smart_people": 0,
        "smart_governance": 0,
        "smart_living": 0,
        "smart_environment": 0,
        "smart_economy": 0,
        "smart_mobility": 0
    }
]
```

Output:

1. Recommendations

```
JSON:

{
    "id_good_practices": ["id", "id", …],
    "Id_toolbox_method": ["id", "id", …]
}
```

2.1.5   Consuming APIs for Matchmaking API

1.   Good Practice Knowledge Base

GET /api/goodpractices/

```
JSON:
{
        "goodpractices": [
          {
                "id": 0,
                "title": "string",
                "short_description": "string",
                "country": "string",
                "region": "string",
                "town": "string",
                "category": ["string", "string", …],
                "applicable_in_rural": true,
                "region_level": "string",
                "affecting_scale": "string",
                "affecting_population": ["string", "string", …],
                "timescale": "string"
          },…
        ]
}
```

GET /api/goodpractices/{id}

```
JSON:
 {
     "id": 0,
     "data": [
          {
                "key": "string",
                "value": "string"
          }
     ]
  }
```

2. **Toolbox Methods Knowledge Base**

```
GET /api/toolbox/methods/

JSON:
{
    "methods" : [
        {
                "id": 0,
                "title": "string",
                "short_description": "string",
                "description": "string",
                "category": ["string", "string", …],
                "affecting_scale": "string",
                "affecting_population": ["string", "string", …]
        }
    ]
}
GET /api/toolbox/methods/{id}

JSON:

{
    "id": 0,
    "data": [
        {
                "key": "string",
                "value": "string"
        }
    ]
 }
```

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2.1.6   Smartness assessment result

Based on the assessment process described in the previous subsections, we calculate the smartness level and present da results of the smartness assessment in appropriate form. Based on the answers and our studies of smartness we first present the results in the form of a graph, showing the current results for every smartness category and the average results in the appropriate region (see Figure 3).

Figure 3: Smartness Level example.
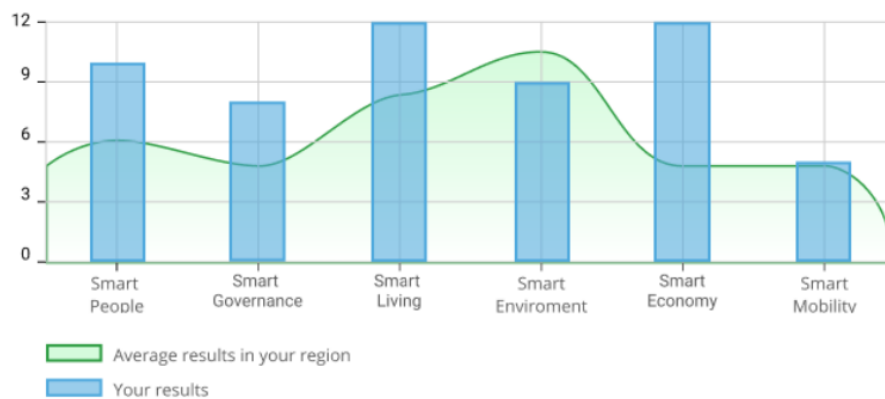
Furthermore, the solution points out the categories that are critical to improve, the categories where there is a room for an additional improvement, and the categories that point out the most.

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Following the results, there is a list of ideas for good practices and some techniques for their achievement. These good practices can be applied in order to improve the smartness in the categories that were identified as the most critical ones. An example of good practices is shown in Figure 4.

Figure 4: Examples of Good practices.

The methods and techniques for achieving improvement are presented in the form of real-world solutions tha can be applied in real-world environments (see Figure 5).

Toolbox Methods and Tehniques

How to achieve improvement

We have gathered a collection of methods, methodologies and techniques that can be applied in real-world scenarios of introduction of good practices of smartness in real environments.

SMART ECONOMY

Focus group

Focus group is a method to collect qualitative in-depth information. It is a group interview where the theme of the conversation is known in advance and questions are led by facilitator. Focus groups are ideal for discovering new (important) themes/problematic areas, contributing to in-depth research, in-depth analysis, placing the phenomena in the context, and for interpreting the phenomena already identified, its difficulties or viewpoints. Participants of the focus group are selected in advance by the organizing team. Usually there is more than one focus group meeting to get quality results. To organize a focus group an organizing team is needed (including facilitator, organizer, content planner, recorder, analyzer) and 10 – 15 participants.

Usually the event follows these steps:
1. Organizing team is set up.
2. The topic is decided and questionnaire is formed.
3. Date and location are chosen.
4. Participants are invited.
5. Facilitator leads the conversation according to the plan.
6. Records and transcripts are analysed.
7. Actions are taken according to the results.

Focus groups are often used to learn more about opinions on a designated topic but further also to serve as a starting point to future actions.

✓ Applicable in rural, non-city areas

◎ For Villages

🕐 Reoccuring event, 60-120 min

Figure 5: Example of Toolbox Methods and Techniques.

In roder to ensure better collaboration and faster progress, the solution offers the opportunity to share success secrets with other collaborators (see Figure 6).

We noticed you excell in Smart living and Smart economy.
Do you mind sharing your secrets with us?

Share your story

Figure 6: Sharing success.

2.2 Appropriate design

Selecting the proper layout of the website is an essential aspect, not only of WordPress, but also of every more serious website. Since nowadays attractive and beautiful layouts can easily attract more visitors compared to poorly designed websites, many companies invest a lot into the layout of their websites. For this purpose, the WordPress community offers free layout templates for applying to the website. An essential aspect of WordPress is also a possibility to buy professional layout templates.

We have already analyzed many providers of professional templates as well as identified their prices. From our investigation, we found that there is a significant portion of professional templates that are very cheap (mostly about 50 EUR and even less). On the contrary, most other CMS systems lack professional templates. Therefore, the possibility to buy professional layout is another advantage of WordPress for our use.

WordPress themes support changing the look and functions of the website, without changing either the code or the content. WordPress websites commonly require at least one theme, designed using WordPress standards.

Considering the requirements for the DEP, we performed a proper examination of the most common available WordPress themes. The summary is presented in Table 2. Ten different themes were analyzed by nine different collaborators. The results of the analysis show that the CityLogic layout received the most "votes". Even though WordPress offers a lot more professional themes that are very cheap, we selected the CityLogic theme. The rationale for this decision is that the theme offers a modern website design, which makes it a preferred choice for creating websites for various domains, e.g., travel, business, and lifestyle. The theme supports the ability to have a transparent header, which allows displaying either a static header image or a slider.

Table 2: Analysis of possible WordPress layouts

	1	2	3	4	5	6	7	8	9	10
TEMPLATE	**Extra**	**Stirplan**	**Edugrade**	**Pepper**	**Nanosoft**	**Foton**	**Ripple**	**Hestia**	**Zelle Lite**	**CityLogic**
PAYABLE	Yes	Yes	Yes				No	No	No	No
GRADE (1-10; 10 being the best)	10	8	7	1	5	2	4	6	3	9
	8	10	7	1	4	2	5	6	3	9
	10	7	7	2	4	2	5	4	4	3
	9	8	5	3	7	4	7	7	6	8
	9	9	7	5	8	3	8	8	7	8
Total	46	42	33	12	28	13	29	31	23	37

3. Implementation tasks backlog

The following chapter presents summed up implementation tasks for the implementation of the DEP, thus providing answers/information to the above mentioned topics. The backlog is presented in Table 3. The backlog is generalized for the higher perspective view in order to make it more readable. The backlog list is not finalized and will proceed to be filled up, however until now the most important implementation tasks for the set-up of the DEP are cowered.

Table 3: Project backlog

Task	Description	Status
Review available CMS solutions	Reviewing available CMS solutions in order to select the most suitable one for the development of the DEP, considering the defined key features	EXECUTED
Set up the infrastructure	Preparing the hosting space, the access privileges, the databases	EXECUTED
Set up the WordPress solution	Setting up the WordPress solution on local server with basic settings	EXECUTED
Set up a Forum plug-in	Setting up a proper forum plug-in for better communication	EXECUTED
Set up a File manager plug-in	Setting up a proper file sharing plug-in, so the collaboration with our partners can be enabled	EXECUTED
Enable Google+ and Facebook login	Enabling a Google+ and Facebook login, with additional user restrictions. Every new Google+ or Facebook login should be approved first and (if needed) an additional rights should be placed for that user	EXECUTED
Enable LinkedIn login	Setting up a plug-in for LinkedIn login, which is be connected with the Google+ and Facebook plug-in	EXECUTED
Define user group for various DEP service	Defining user groups (RSG, Consortium partners, Public etc.) and their corresponding privileges	EXECUTED
Set up an automatic privileges allocation for specific user groups	Prepare a central setting of user privileges for an automatic allocation of user profile rights, considering its group	EXECUTED
Review of available templates	Analyze providers of professional templates as well as identified their prices, in order to select the proper layout for the DEP web solution.	EXECUTED
Set up the chosen template	Setting up the selected template plug-in for better user experience (CityLogic)	EXECUTED

Set up access privileges for documents and forum	In order to provide a complete DEP solution with proper user restrictions and security, set up the privileges for document and forum access	EXECUTED
Set up a registration for new users	Setting up registration plug-in for new users. New user can register by using already created Google+ or Facebook profiles, or by creating a new profile for the DEP	EXECUTED
RSG registration	Registering new RSGs	EXECUTED
Configure sending confirmation emails	Enabling an additional email confirmation using appropriate Email services	EXECUTED
Set up a Multi-language support	Setting up a plug-in for multilanguage.	EXECUTED
Facebook and Twitter integration	Configuring the Facebook and Twitter services integration	EXECUTED
Set up the smartness assessment tool and integrate it into DEP	Setting up the DEP infrastructure for the Smartness tool integration	EXECUTED
Set up NodeJS infrastructure into the DEP domain space	Setting up NodeJS for the needs of the Smartness assessment tool integration	EXECUTED
Set up the Matchmaking subpage	Creating the matchmaking subpages	EXECUTED
Cloudron review	Analyze Cloudron - hosting platform that could have enabled us to install and maintain some well-known applications	EXECUTED
Set up connection to the official web page of the project	Add a connection to the official web page of the project	EXECUTED
Migrate the DEP to a new/production ready server	Migrating the solution to a new and more powerful server, due to the intensive development of new plugins and additional features that will be developed at our institution	EXECUTED
Configure HTTPS	Configure the server and the DEP to handle HTTPS access	EXECUTED
Set up PHP functionality for Matchmaking	Setting up the PHP functionality for the Matchmaking process	EXECUTED
Set up an API for Matchmaking	Setting up the backend API for Matchmaking, which will be used for connecting the assessment with the results	EXECUTED
Set up forum sections	Setting up forum sections and subsections according to the project's work plan (WP, RSG sections, public etc.) and the appropriate privileges to access those	EXECUTED
Set up sections for the documentation exchange	Setting up sections and subsections for the documentation according to the project's work plan (WP, RSG sections, public etc.) and the appropriate privileges to access those	EXECUTED

Define Good Practices' properties and key features	Defining what data should be gathered for Good Practices and in which form	EXECUTED
Set up the Good Practices module	Prepare a module for adding Good Practices to the DEP, its design, the way it is gathered (input of GPs), showcased and stored	EXECUTED
Integrate Maps for the Good Practices List	Adding Maps support for the list of Good Practices	EXECUTED
Configure forum subscription settings	Setting up the subscriptions to the DEP forum in order for the	EXECUTED
Set up the Test Area pages	Setting up, configuring and populating Static showcase pages for project's Test Areas	EXECUTED
Prepare the contact page	Setting up a static contact page for various features of the DEP, considering that various features have specific project partner coordinator	EXECUTED
Add the project's showcase video	Adding the project's showcase video to the DEP	EXECUTED
Configure smart-villages.eu domain linked with DEP	Linking the new domain with the DEP	EXECUTED
Set up the API for the export of gathered data	Setting up an API where the public can access all the data the DEP has gathered; prepare the appropriate documentation	EXECUTED
Prepare the integration plan for the Toolbox methods into the DEP in relation to the Smartness Assessment	Preparing the integration documentation for Toolbox methods and its interactions with the Smartness Assessment through DEP	EXECUTED
Redesign and implement the Smartness Assessment questionnaire	Redesign the questionnaire for the Smartness Assessment in order to be fully integrated into the DEP and not as an external service	EXECUTED
Implement the Smartness Assessment connection with the Good Practices and Toolbox methods	After implementing the Smartness Assessment redesign, this has to be integrated with the Matchmaking API and the Toolbox methods – data gathered from the Questionnaire has to be sent to the Matchmaking API, this has to connect to the Toolbox API, which will return the appropriate results for showcasing the results	ONGOING
Redesign the whole DEP in order to increase user-friendliness	After having implemented the major functionalities of the DEP, this has to be redesigned in order to make it more focused and user friendly and separate the consortium parts from the public ones	ONGOING
Implement the redesign of the DEP	Implement the redesign of the DEP	PLANNED

4. References

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