



DELIVERABLE

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1. Executive Summary

Within the ICT Policy Support Programme the European Commission supports numerous projects that contribute to Europeana, the European Digital Library¹. One of these projects is the *thinkMOTION* project², which aims at the implementation of the **world's largest digital library in the field of technical cultural heritage** with emphasis on motion systems.

The content of the library is presented in the online portal called “**Digital Mechanism and Gear Library**” (DMG-Lib). Different content categories offer a **user specific access to literature, animations, videos and mechanism descriptions**. By allocating the content, also interested laymen are invited to visit the library, e.g. via the timeline on important personalities or the virtual museum.

These versatile content types come along with similarly **versatile user groups**. In general, two types of groups have been identified: those users who require information and those who provide information to the library. The first group is mostly working actively in the field of motion systems and requires information for every day work (**e.g. engineers, designers, students**), while the second group mainly consists of organisations that spread and provide knowledge and information themselves (**museums, other libraries, universities**).

A detailed analysis of the **project's SWOTs** (strengths, weaknesses, opportunities, threats) has revealed several facts about *thinkMOTION* that can help the project to achieve sustainability and a good exploitation of results (**e.g. multilingualism, hard- and software infrastructure, e-learning**). To be successful the partners' efforts are decisive, whereas the weak points mainly refer to aspects which are beyond the partners influence (**e.g. IPR restrictions, visibility in Europeana**), but should not be neglected.

For the project's sustainability a **strong network of collaborating partners** is of great importance. Four main potential collaboration partners have been identified: **general audience, enterprises/industry, academics/researchers and museums**. Each of them must be addressed by a suitable strategy, since their needs towards a digital library on technical content are very special and diverse.

A corresponding **business plan for *thinkMOTION* after EU-funding** always needs to be in line with the regulations of the association behind DMG-Lib. It guarantees the long-term

¹ www.europeana.eu

² www.thinkmotion.eu

viability of the library and keeps close contact to the network and the scientific community. Business models could be built upon **commercialisation of software and knowhow, licensing of certain contents, e-learning, sponsoring/advertising.**

Considering all circumstances the *thinkMOTION* network should take into account some recommendations. **Focused actions should be started** regarding consolidation of the network, installing and promoting DMG-Lib in museums, schools and social networks, finding new applications for software infrastructure.

2. Introduction

In 2005 the European Commission adopted the proposal of 6 Heads of State and Government to establish a digital library for the preservation of Europe's cultural and scientific heritage. The first big step was the creation of the European Digital Library Foundation, which formalises the agreement of European archives, museums, and libraries to work together and to provide a common access point to Europe's cultural heritage online³. During a stakeholders' conference, which was held in The Hague in June 2008, the first prototype of the Europeana portal was introduced and tested. In November of the same year the online portal of Europeana was launched in the presence of representatives of the European Commission, cultural institutions from across Europe and the Cultural Ministers of several member states.

Today, more than 2,200⁴ cultural heritage institutions and digitisation projects from across Europe contribute to Europeana and provide open access to currently over 20 million digital objects, such as books, paintings, films and photographs. The portal is multilingual, 29 languages are being supported at the moment. The main focus of Europeana's content lies on cultural-historic materials about arts, architecture, sports and cultural life.

The *thinkMOTION* project as part of Europeana leads to the world's largest, open access digital library providing content in the field of motion systems, which is essential for all technical domains, but currently underrepresented in Europeana. The collected material is processed and presented immediately in a multilingual interactive portal via Europeana. Here, the techno-cultural heritage and the current developments in motion science will be preserved and made accessible for a wide range of European user groups like engineers, scientists, lecturers, students and interested laymen. The provided interactive material leads to a deeper understanding and motivates to learn more about the scientific and technical background in a European society of lifelong learning. Very different types of content like textual sources, physical models and drawings are collected by the project partners in five European countries (France, Germany, Italy, Romania, and Spain).

The project is based on a German initiative funded by the German Research Foundation (DFG), named Digital Mechanism and Gear Library (DMG-Lib). Since 2010 the library is supported by the European Commission under the ICT Policy Support Programme. Within *thinkMOTION* the contents of DMG-Lib are transmitted to Europeana and thus made available to the broad public on an open access basis.

³ http://ec.europa.eu/information_society/activities/digital_libraries/timeline/index_en.htm

⁴ On 2012/11/13

In order to achieve sustainability of the project results and an efficient transfer of knowledge, it will be essential to establish concepts for financing and cooperation that go beyond public funding. Some of these concepts will be explored in this document.

3. Analysis of *thinkMOTION* Features and Services

thinkMOTION provides a huge amount of digitised material in the field of motion systems, which is presented in the Digital Mechanism and Gear Library portal (DMG-Lib). Here the users can choose different ways to access the content, according to their individual level of knowledge and the desired information.

3.1 Workflow

In order to provide this broad range of content an effective workflow is essential. Fig. 1 visualizes the applied workflow within the *thinkMOTION* project.

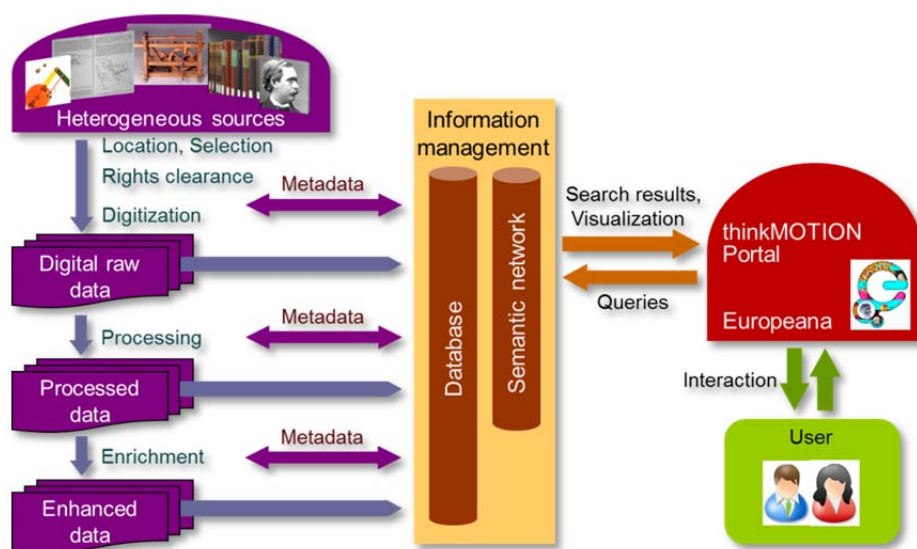


Fig. 1: Workflow within the *thinkMOTION* project

The workflow starts with the localisation and selection of relevant sources. In case the contents match the selection criteria (thematic relevance and quality) the process of rights clarification is initialized. Once the rights owner transfers the rights of use to the DMG-Lib Association, the respective material can enter the digitisation process or, in case of original digital content, be uploaded to the database directly. All materials run through a sequence of processing and enhancement steps, which are performed by capable software products. The collection of metadata (from basic to detail) runs in parallel and is handled by an online database, which all project members have access to. This database works as an interface between the production of content and its presentation in the DMG-Lib Portal. The underlying semantic network answers the queries of the portal (made by DMG-Lib users) with relevant results.

3.2 Literature

The comprehensive collection of textual sources is the most suitable feature to draw the user's attention to the library portal, since textual sources are very often the user's first choice when exploring a scientific topic. By providing open access to thousands of full text documents the DMG-Lib is an extension to what traditional offline libraries can offer to the users and goes beyond the simple research in reference lists. Cross-links of text items with related images or biographical information complement the range of information retrieval. Fig. 2 shows how text documents are presented in the DMG-Lib.

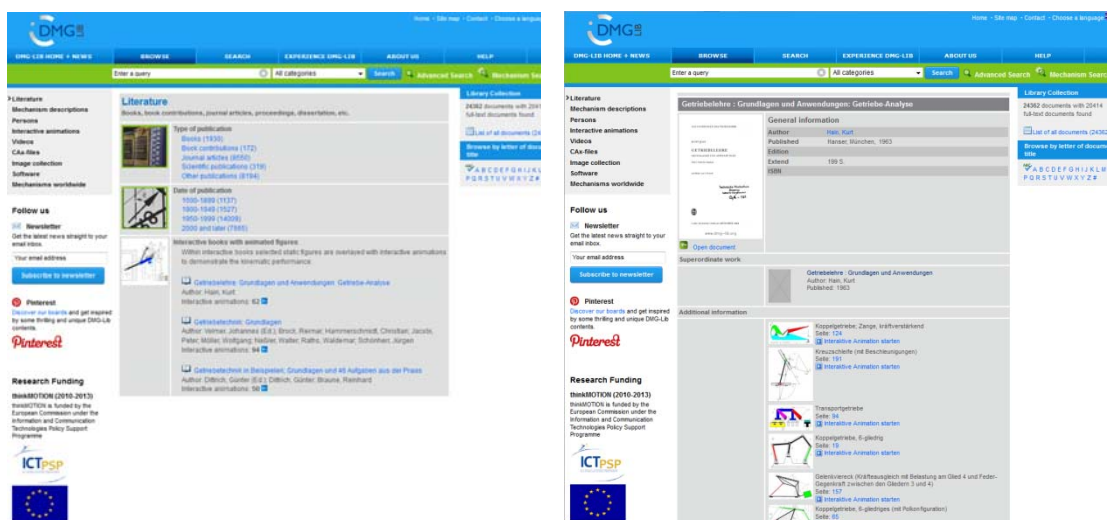


Fig. 2: Presentation of text documents

3.3 Mechanism collections and descriptions

By accessing the mechanism collections by different universities in Germany users can easily get an overview on physical models and mechanisms, which were built as teaching and demonstration objects mainly. Each model is described and analysed by specific parameters and metadata. Attached to the dataset for each model, users can find additional media formats like videos, animations or images. A deeper understanding of the mechanisms' function can thus be stimulated.

Additionally, this feature can support experts and professionals in their everyday work. Working with mechanisms sometimes requires the construction of a mechanism for a very specific motion task. By entering the desired attributes and parameters, the user can find a suitable solution for his motion task. To prove it, the user can resort to the above described multimedia attachments. Fig. 3 shows a brief overview on the presentation of mechanism descriptions in the DMG-Lib.

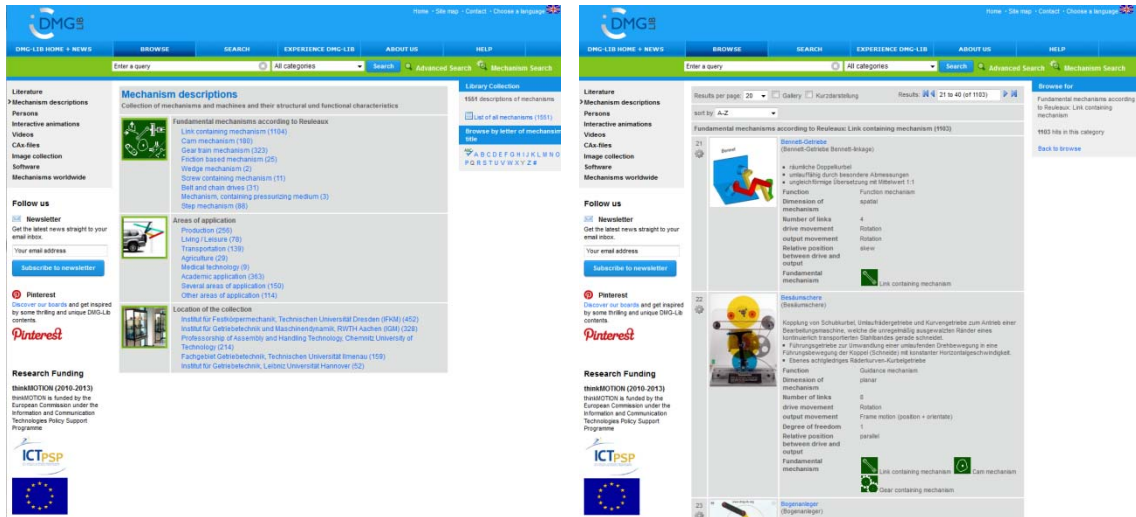


Fig. 3: Mechanism descriptions

3.4 Interactive animations

The collection of interactive animations of physical models and mechanisms is a feature both for experts and interested laypeople. The animations offer the opportunity to manipulate the moving mechanism and to change different parameters in order to see the effect on the performed motion. This function helps experts to analyse the mechanism in detail and determine its usability for the desired motion task. Non-experts, e.g. a historian who studies the life and work of Leonardo da Vinci, can easily comprehend the genius behind the invention and its use in former times and today.

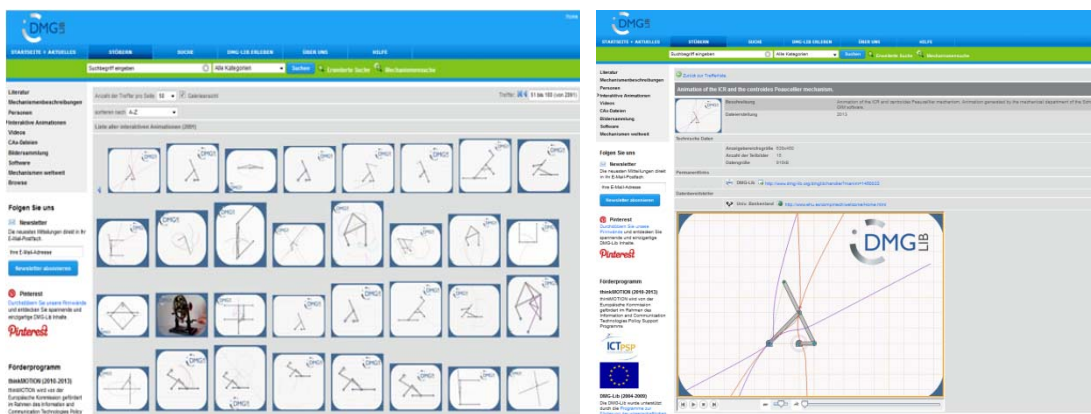


Fig. 4: Interactive animations

3.5 Biographies/Timeline/ Virtual Museum

Another access to the database is offered by the timeline and a related Who-is-Who collection of about 150 outstanding personalities in the field of mechanism and machine science. It is the starting point for users who are initially interested in the biography of a person. By cross-linking to primary and secondary literature and other related DMG-Lib

items the user is being directed into the world of mechanisms and can collect information and knowledge as needed. Fig. 5 shows a brief overview on the outstanding personalities in the DMG-Lib.

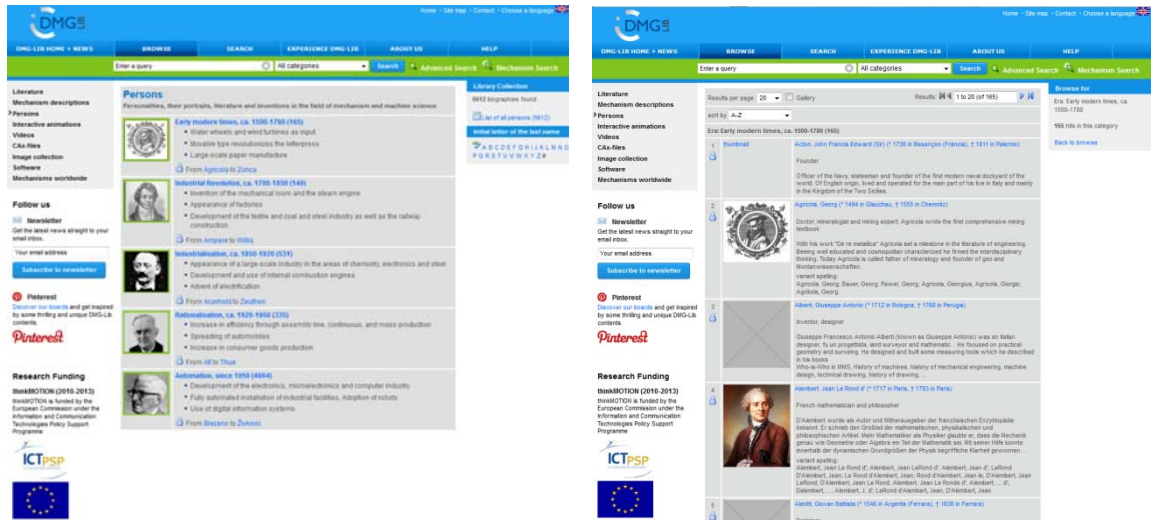


Fig. 5: Presentation of biographies

These Personalities can be further processed by creating a timeline. This timeline introduces different eras and shows famous people, their inventions and literature about mechanism and machine science (Fig. 6).

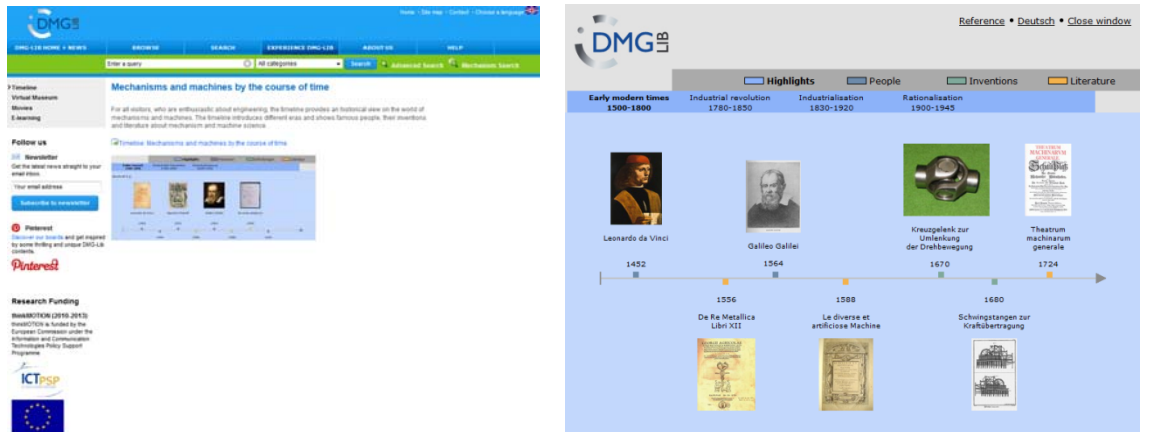


Fig. 6: DMG-Lib Timeline

The virtual museum offers the user direct access to all categories of DMG-Lib items and is an easy, handy and usable way to overview the comprehensive collection, especially for users without a specific intent in their visit.

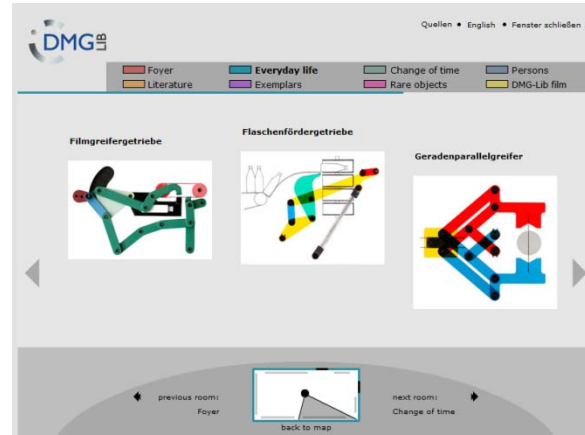
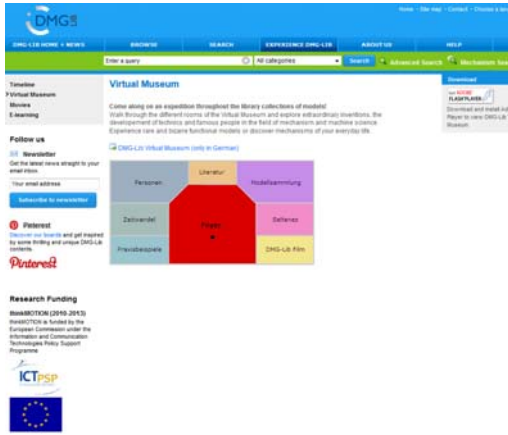


Fig. 7: Virtual Museum

3.6 E-Learning

The DMG-Lib has started a new series of E-learning videos recently. Very descriptively and understandable presentations of selected topics are offered and made available for download. This collection shall grow in the future and become a valuable extension of the hitherto existing content.

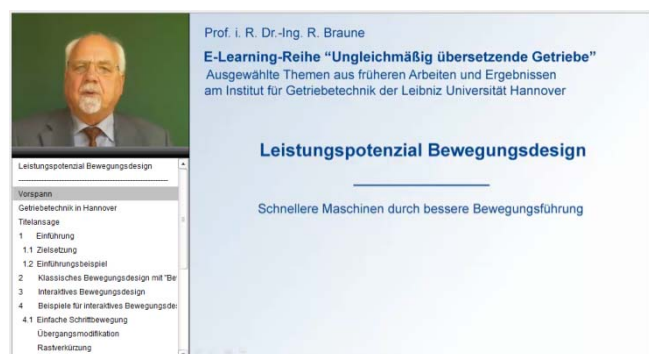


Fig. 8: E-learning with DMG-Lib

4. thinkMOTION User groups

The acceptance of the intended user groups is essential for a digital library. With the number of one thousand clicks per week there is a remarkable access to the portal. All these users have generally different reasons for accessing the portal, but they can be separated in two different groups: They need to know something about mechanisms and enter the portal knowing to find a proper answer for their problem or they know something about a mechanism and want to provide that information. Within these groups several subgroups can be identified (Fig. 9).

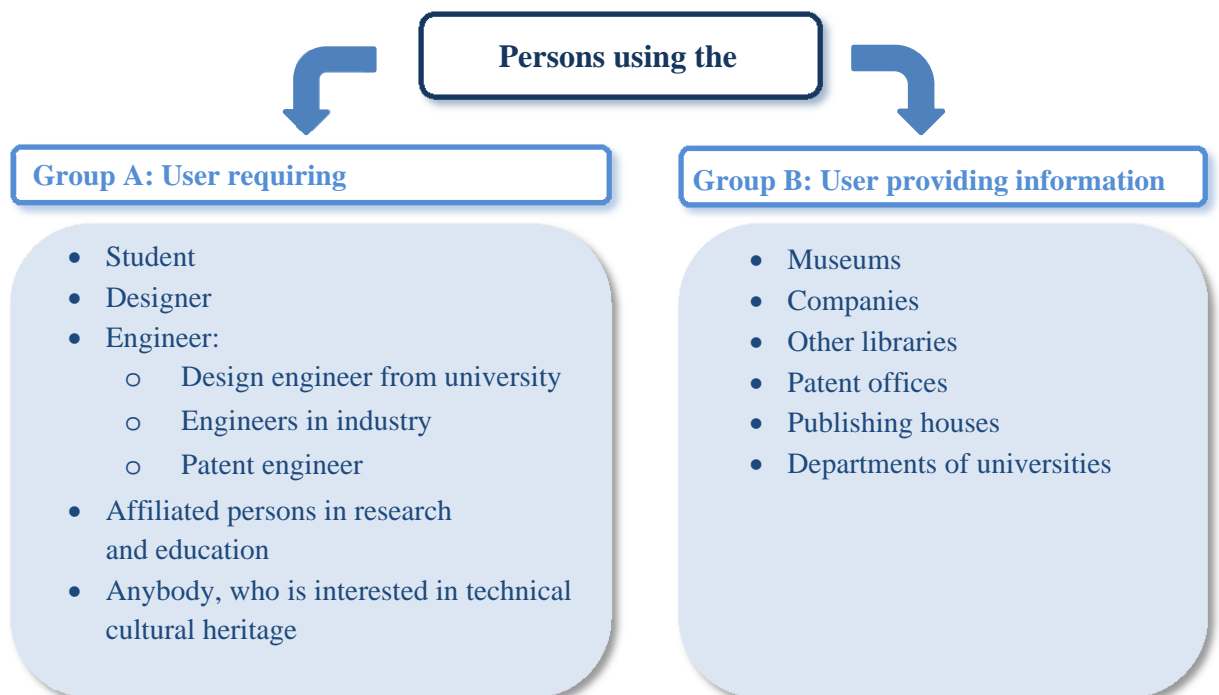


Fig. 9: Different user groups of the DMG-Lib portal

Group A: User requiring information

The first general Group A is explained in the following. The different user groups within this group are students, affiliated persons from research and education, several engineers (design engineer from university, engineers in industry, patent engineer).

Students

The student user is not interested primarily in a simple collection of certain kinematic structures but more in research and communication aspects. Depending on the knowledge of the student according to the stage of education the following several basic properties of the database are used:

- Simple, basic introduction into mechanism science
- Chronological history in mechanisms science

- Post-processing and preparation in education
- Visualization of mechanisms
- Preparation of exams
- Providing additional elements (Software, program data, books)
- Research
- Structural synthesis
- Start of career

Designer

The designer usually uses the portal searching for certain mechanisms within the design step of structural synthesis. In that early design stage the mechanisms is not defined yet. The designer has several opportunities to search for mechanisms. The first, unmethodical one is just entering some keywords representing different types of mechanisms. The second one is more systematized. The designer has just determined the requirements, which can be used partially as queries in the search engine of the portal. On base of the defined queries this search enables a kind of structural synthesis using the defined mechanisms descriptions in the database.

Engineer

The user group engineer uses the portal in very different ways, as there are different kinds of engineers.

The design engineer has a similar user profile according to the mechanisms development. Furthermore this certain engineer is interested in a chronological list in mechanism history regarding innovative developments.

The patent engineer uses the portal as an updated library for analysing the state of the art in a certain field of mechanism development before a patent is filed. The patent engineer searches for existing patents, mechanisms, paper in magazines and journals because an already existing mechanism or a description of that disables the possibility of patenting an invention. Furthermore, it can be used for the following investigations:

- Tool for a patent research to file a new patent
- Research for the right of export and utilization
- State of the art in a certain field
- Appeal research for attacking patents of competitors
- Monitoring research

Affiliated persons from research and industry

This user group unites all employees in research and education. This can be professors, lecturer, teachers and so on in mechanism theory. All these different users are looking for possibilities to teach their students efficiently by using any kind of helpful material

(pictures, videos, animations, calculation schemes, mechanism descriptions, etc). All these information can be taken from the portal to support their ideas.

Group B: User providing information

The second user group unites the user providing information which is collected from museums, companies, other libraries, patent offices, publishing houses and departments of universities.

Museums

Museums represent a special kind of information for the collection. Especially technical or industrial museums hide valuable treasures regarding mechanism theory. These mechanisms can be digitalized (picture, videos, etc.) and analysed to be used within the mechanism description.

Companies

Companies are a promising option for mechanisms as well. Beside pictures and mechanism descriptions companies usually own CAD-Models of the mechanism where an animation can be extracted from.

Other libraries

Very different types of libraries usually provide content according to mechanism theory. Libraries often offer very worthwhile documents which were published within the 19th century. These books can be digitalized and saved in the database.

Patent offices

Patents are a good opportunity to collect information about mechanisms. Numerous patents are already digitized and saved in online databases of different patent offices. These patents can be downloaded and stored in the DMG-Lib. The huge advantage using patents is that no rights clarification needs to be carried out. The patents can be established with metadata and additional information concerning the technical information about the motions. This strongly enriches the patents and makes them interesting for a broad public.

Publishing houses

Publishing houses, especially technical ones, provide numerous technical books among others which can be digitized. Regarding books which are older than a few decades there is no digital copy owned by the publishing house. This makes it easier to convince publishing houses to exchange the digital copy and the permission to use the book in the database.

Departments of universities

Departments of universities possess countless physical models of mechanisms. These mechanisms can be digitized (pictures, videos, animations etc.). Furthermore there are lots of scientific theses to be digitalized as well as documents from lectures and other teaching materials. Additionally, users can benefit from the underlying geographical information and find out about thematic foci at different universities.

5. Strengths, Weaknesses, Opportunities and Threats (SWOT)

During the 2012 meeting of *thinkMOTION* Governing Council a detailed analysis of the project's strengths, weaknesses, opportunities and threats (SWOT) was performed by all participants. The most significant results are presented in the following figure.



Fig. 10: Result of SWOT analysis

The fact that there are no real business experts among the partners has been identified as the most significant weakness of *thinkMOTION* project regarding its future development. The **advice of a marketing expert** could lead to new impulses and strategies for sustainability and exploitation. At the same time it seems important to find a common basis of communication between the consortium of engineers and scientists, the business experts and the community of users and stakeholders. The analysis of *thinkMOTION* user groups shows a **broad community of interest**, but the uncertainty about this community is its

willingness to pay for online services and thus ensure sustainability for *thinkMOTION* beyond funding.

Regarding its content the *thinkMOTION* project suffers from possible restrictions caused by non-obtainable rights of use. The process of rights clarification is time-consuming and does not always end up successfully. Considering the high amount of currently digitized content – and thus signed copyright agreements – this weakness will neither affect the overall project goals nor its sustainability. On the contrary, once the usage rights have been obtained, the underlying “Letter of Agreement” guarantees long-term availability of the digitized content – and is thus an important part of the sustainability strategy.

A more likely problem seems how to **ensure a good visibility** of *thinkMOTION*’s specific content inside the wide spread content of Europeana. Due to the above mentioned emphasis of Europeana on culture and arts, the technical and scientific content of *thinkMOTION* project needs to be presented in a way that draws the attention also of non-professional user groups.

The potential for the sustainability of *thinkMOTION* lies within its position as the world’s **most comprehensive digital library** in the field of motion systems. This position is strengthened by the aspect of **multilingualism**. As a result of the work of the 5-nation-consortium all portal sites are available in six languages (English, French, German, Italian, Romanian, and Spanish). Metadata are offered to the users in at least the content language and English. Based on these characteristics the library could have a big impact on the **growing market for E-learning**. First attempts were launched on the portal recently and should be pursued definitely.

From these strengths different opportunities arise which can lead to possible strategies for the future, which will be discussed in chapter 7.

Beside these user-oriented aspects *thinkMOTION* is based on an efficient and functional **hard- and software infrastructure**, which was developed especially for the needs of a digital library. One important part of the internet-based work interface is the **rights management system**. The implemented process of rights clarification and management might be a model for other digitisation projects that have to deal with IPR issues.

The same applies for **technical knowledge** regarding digitisation, processing and presentation of digital library content. The consortium members can use their long-time experience to give support to other project groups working on similar topics. The association behind *thinkMOTION* – the DMG-Lib Association – already provides these services⁵ and might extend it to the European level in order to reach a broader community.

⁵ <http://www.dmg-lib.org/dmglib/main/portal.jsp?mainNaviState=aboutUs.compCentr>

6. Collaborations

In this chapter possible collaborations and relating strategies will be derived from the previous analysis of *thinkMOTION* features, user groups and SWOTs.

The first step to a successful sustainability strategy is the establishment of collaborations and a powerful network of stakeholders. In the course of *thinkMOTION* project the consortium members have explored and evaluated the possibilities by activities such as:

- Visits to industrial fairs
- Presenting *thinkMOTION* to the student and scientific community
- Contacting museums, libraries and private collectors

Four groups of potential collaboration partners have been identified.

General audience

To address the general audience and make laypeople curious about *thinkMOTION* is one of the most challenging tasks when setting up a sustainability strategy.

A key element of such a strategy could be the use of social media. In today's digital society the use of communication platforms such as Facebook, YouTube or Twitter is essential for spreading and sharing knowledge and information.

ThinkMOTION should use its large collection of animated (video) items as "eyecatcher", for example by connecting mechanisms in everyday life with related items in the portal via QR-codes⁶ or by establishing a YouTube-Channel with weekly updates and new contents. In general, attention should be paid to a short refreshing period of updates.

Enterprises/industry

Collaborations with partners from industrial enterprises might include the provision of CAD data from *thinkMOTION* database, which can support engineering companies in finding new design solutions. This service could be realised by using the detailed mechanism descriptions for experts described in chapter 3. Here, also possibilities for a licensing scheme for these content types should be considered. If the provided information is of high quality and benefit for the enterprises, they will be the most willing group to pay for such services.

⁶ http://www.pcmag.com/encyclopedia_term/0,1237,t=QR+code&i=61424,00.asp

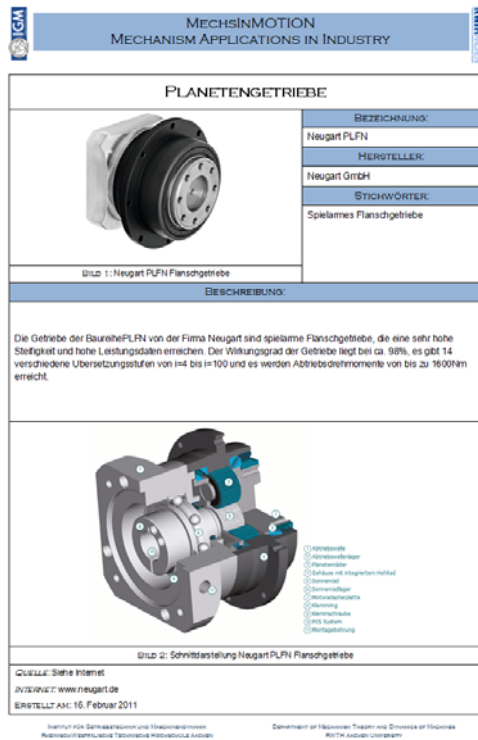


Fig. 11: Datasheet "MechsInMotion"

history is an important task especially for companies with a long (family) tradition. Additionally, many companies have large collections of old and valuable mechanism models or construction sheets.

Such cooperation models would enrich the DMG-Lib collection on the one hand and, on the other hand, enlarge and strengthen the stakeholder network.

Academics/researchers

For academics and researchers *thinkMOTION* must go beyond its function for simple information retrieval. One possibility is to offer the opportunity for researchers to present their research without having to publish a paper or travel to conferences, which often implies costs.

An interesting feature for experts as well as for laypeople can be e-learning, which is a growing market for the future. The fact that all partners have academic background – and thus are teaching experts – can be of great advantage.

Museums

For museums and other cultural institutions *thinkMOTION* can offer digitizing services and technical support in the field of adequate presentation of technical knowledge. Another important possibility is to use the online portal as a platform for large virtual exhibitions. As exhibition space in museums is often restricted, the “unlimited” web space can be a chance to present hidden collections with reference to mechanism and machine science. Of course, this type of cooperation would come along with publicity for the museum providing the content. In return, the experts

thinkMOTION can also serve as a platform for (indirect) advertising in terms of presenting a company’s product with the relating mechanism stored and described in the database. This would bring additional values for the users – to see the application of a mechanism – and the companies as well. A suitable way of presenting company products might be the datasheet “MechsInMotion”, which has been developed by the project team.

Another opportunity for *thinkMOTION* to establish long-term collaboration with enterprises is to offer digitization services for the companies’ historical archives. The preservation of materials about a company’s

behind *thinkMOTION* could provide museums with expert analyses and descriptions of exhibits with technical background.

7. Business plan and strategies for *thinkMOTION*

To ensure the sustainability of *thinkMOTION* different business models can be established with the overall objective of the long-term viability of DMG-Lib database. Accordingly, the business strategy is supposed to guarantee, that the collected data can be provided to all users in the long term and that all operational costs are covered. Besides long-term availability, it is important to enable the future collection of further content as well as the translation of existing content. These activities will also imply a lot of tasks after the end of Community funding, which come along with several operational expenses. To cover these operational expenses of future DMG-Lib activities, different scenarios of private and public funding have been discussed, which can be focussed on regional or European business.

In order to achieve the intended objectives, the value chain of the *thinkMOTION* digitization process has been analysed (Fig. 11). Accordingly, the separate parts of acquisition, data processing and distribution will include particular costs such as personnel costs, costs for subcontracting, material costs, licenses, IT-costs and costs for administration. The most promising ideas to reduce the financial effort of DMG-Lib can be seen in the lower part of the revenue and cost model.

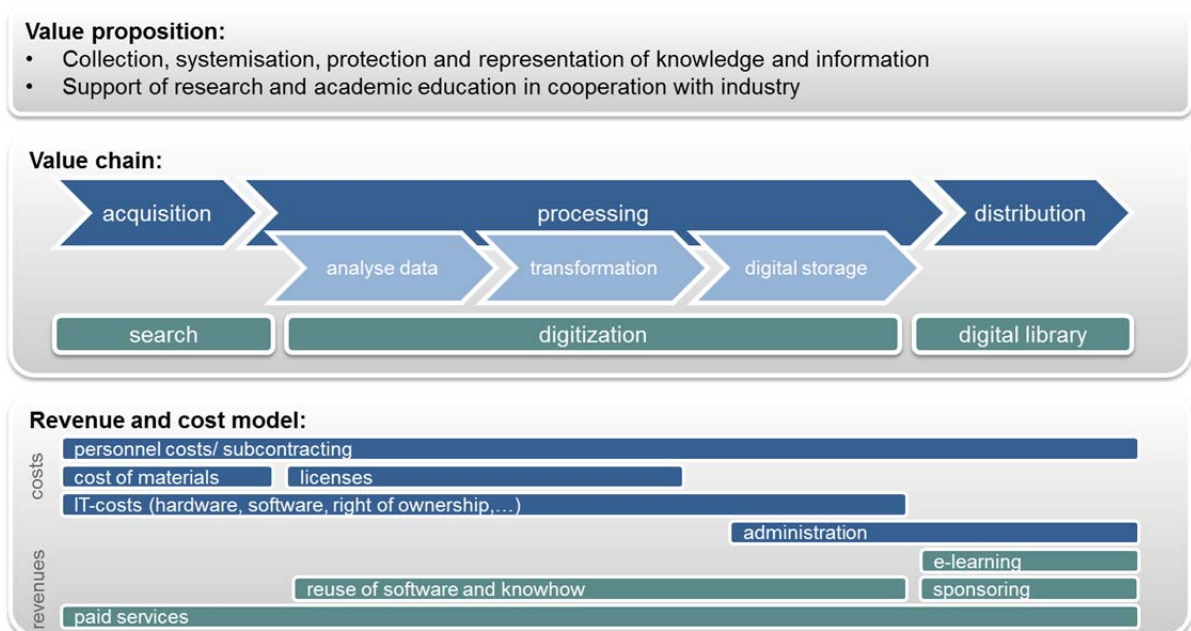


Fig. 12: Business plan

The business strategy consists of the following parts:

- Commercialisation of digitization software and knowhow
- Paid services
- E-learning:
 - Exam preparation
 - Lecture reworking
 - Advanced studies
 - Lifelong learning: education and training opportunities in different levels
- Sponsoring

On the one hand, the digitization process and knowhow, used in the *thinkMOTION* project, can be reused in other fields of digitization. Accordingly, the software can be offered to interested enterprises, to academic institutions or to museums, so that the revenues can be invested into the future operation of DMG-Lib. On the other hand, the content offered via DMG-Lib could arouse the interest of industrial companies or patent agencies, which are engaged in motion tasks. DMG-Lib could offer paid services to those companies, such as digitization tasks, creating CAx-data or simulation of motion tasks. Furthermore, e-learning could be offered e.g. to universities or museums, which involve the collected content into their lectures and exams or which themselves offer advanced studies dealing with mechanisms and gears. Another possibility is to finance DMG-Lib via sponsoring.

The business strategies presented above can be associated with a particular *thinkMOTION* network (Fig. 13). Accordingly, the network includes all Europeana/DMG-Lib users and consists of three different components. First, all partners become members of DMG-Lib association, which is responsible for the long-term availability of the DMG-Lib database and keeps contact to the scientific community. To implement this association different legal forms have been analysed in order to realize the presented business strategy. Among other possible forms, the German legal form “eingetragener Verein (e. V.)” is able to ensure long-term viability and continuance of contacts. As the DMG-Lib e. V. is a non-profit organisation according to the German legal system, it is tax-privileged until the income limit of 35.000 € and its liability is limited to the association assets. Additionally, DMG-Lib e. V. is supposed to serve research and science without any economic interest, which is intended by the German legal system. Furthermore, the legal form “eingetragener Verein” offers a simple structure as it consists of an executive board and the members’ general meeting, which decides on all issues in accordance with the regulation defined in the association articles.

Second, there are engineering associations, e.g. IFToMM or VDI, representing the scientific community, which consists of all partners.

The third part of *thinkMOTION* network is formed by the stakeholders, who are defined through their interest in DMG-Lib. As mentioned above, different user groups are

addressed by the business strategies, so that universities, museum and archives, private persons, R&D institutions, industrial enterprises or patent agencies could profit by the content of the DMG-Lib portal.

In summary, the *thinkMOTION* network could provide its members with newsletters and publications. In addition, the collected content could be used to give specialized workshops and conferences on the topic of mechanism and gears.

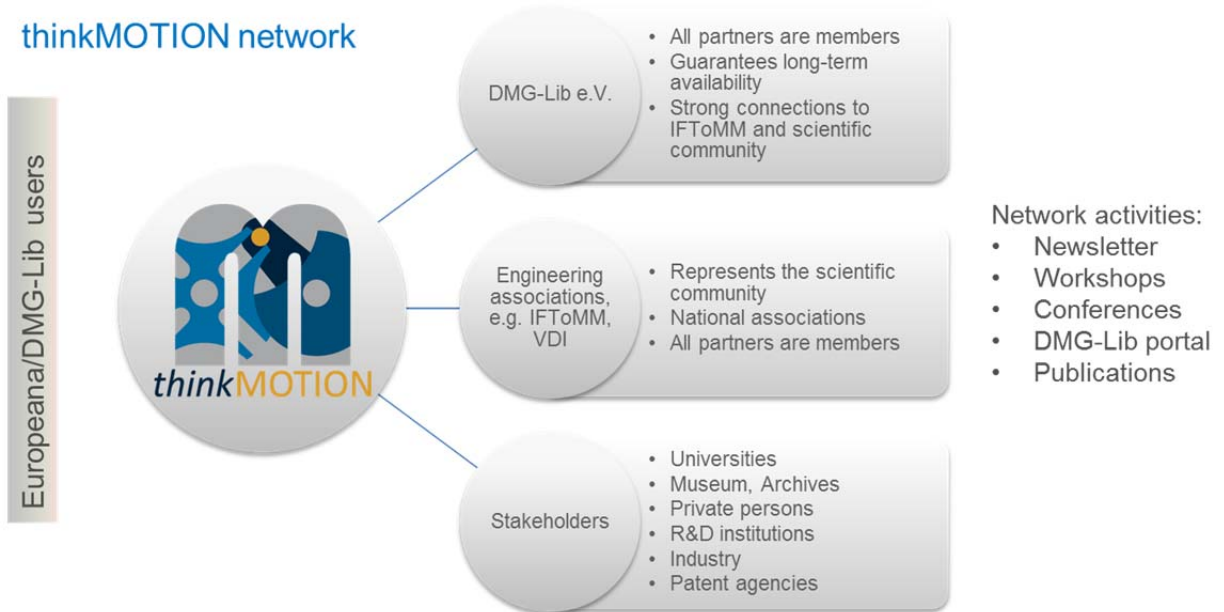


Fig. 13: *thinkMOTION* network

8. Actions and Recommendations

The *thinkMOTION* partners should take into account the following recommendations:

1. The **questionnaires** must be evaluated. Based on the results well-directed actions must be taken.
2. The *thinkMOTION* network must be consolidated:
 - a. **More members and sponsors** of the association DMG-Lib must be advertised. A good source of new members is the list of stakeholder in annex I. The questionnaires will help to find the best way.
 - b. Expanding the *thinkMOTION* team with **two new partners** in the first instance. Negotiations are planned with partners from the Czech Republic and Greece.
3. The list of stakeholders should be increased:
 - a. **More stakeholders from other European countries** than Germany must be addressed.
 - b. Stakeholders from **North America but also from Asia** must be sought and found.
4. Create best ways to **improve the quality and quantity of content** related to the technical cultural heritage:
 - a. Existing **digital content of different stakeholders** (museums, libraries, enterprises, national and European patent and trademark offices, universities) inside and outside the consortium in- and outside Europe should be located and aggregated.
 - b. An **audio-visual content navigator** for virtual exhibitions and educations should be developed and implemented. With this a broad public can be reached and Europeana can be improved.
 - c. All **users should be enabled to directly influence items and metadata production** via a crowdsourcing-interface, thus creating awareness of the technical cultural heritage in Europe.
 - d. More **audio-visual and interactive content** including movies, interactive books, AIS animations, interactive animations should be generated in order to reach a broad public.
 - e. The content and **items of DMG-Lib should be cross-linked** among each other. Their relationships should be clarified to improve item and metadata quality for easier access to a broad public.

5. The DMG-Lib web-portal with **ProDB⁷** has become a **powerful knowledge management tool**. New fields of application for this tool must be found.
6. The DMG-Lib web page is an excellent e-learning platform. This needs to be expanded. A **sustainable e-learning strategy** should be developed both for students and engineers and for layman. In the future, schools should be strongly involved.
7. New ways regarding the **licensing of certain parts of DMG-Lib content** should be explored and evaluated. Additionally, the partners should think about using the web portal as a **platform for advertising**. Here the stakeholder network should be the first point of contact.

⁷ **Production database** – The web-based tool which covers the complete *thinkMOTION* workflow for item handling.

Annex I “Stakeholders”

Stakeholder name	Contact Person	Country
“Leonardo Da Vinci”, Science and Technology, Museum, Milan	Dr. Fiorenzo Galli	Italy
3D-Systems GmbH	Eßer, Klaus	Germany
A. u. K. Müller GmbH & Co. KG	Riedel, Dieter	Germany
ABB Automation Products GmbH	Kock, Sönke; Brehms, Dominik	Germany
Abbelen Fleischwaren GmbH & Co. KG	Greven, Roman	Germany
Adolf Kühner AG	Kühner, Markus	Germany
AIRBUS Transport	Bruno Bolis	France
Aker Wirth GmbH	Hurtz, Hubert	Germany
Albrecht Bäumer Spezialmaschinenfabrik	Hübner, Gerd	Germany
Alcatel	Stachowiak, Peter	Germany
Alpha Engineering GmbH	N.Taufertshoefer	Germany
ALPMA Alpenland Maschinenbau GmbH	Rinke, Andreas	Germany
Andreas Stihl AG & Co. KG	Pretzsch, Peter	Germany
Apex Dynamics	Herr Megens	Germany
Arcil	Nicolas Therene	France
ARoTMM (Romanian Association on Theory of Machines and Mechanisms)	prof. Ph.D. Ion Visa	Romania
ARTAS Engineering Software	Rankers, Adrian	Netherlands
ASML Netherlands B.V.	Butler, Hans	Netherlands
Asociación Española de Ingeniería Mecánica - Spanish Association of Mechanical Engineering (AEIM)	Alfonso Fernandez	Spain
ASYS Automatic Systems GmbH & Co. KG	Wituschek, Herbert	Germany
Audi	Herr Kneerlein	Germany
Audi AG, I/EF-25	Schuller, Jürgen	Germany
Awema	Patrick Amherd	Switzerland
Beumer	Wolfram Kias	Germany
BMW	Diess, Herbert	Germany
Boaga Library of School of Engineering of University of Rome	Laura Barattucci	Italy
Bosch	Dieterle, Werner	Germany
Bosch Rexroth	Stephane Louvet	France
Bosch Rexroth Mechatronics GmbH, Schweinfurt	Reusing, Günter	Germany
Braun GmbH	Kraus, Bernhard	Germany
Bucyrus DBT Europe GmbH	Dr. Sebastian Mundry	Germany
CapwaySystems	Leendert Verheul	Netherlands
Carl Cloos Schweißtechnik GmbH	Platz, Johannes	Germany
Carl Zeiss SMT GmbH, Lit-TR Mechanical Design	Kugler, Jens	Germany
Carré Galopin	Denis Carré	France
Caterpillar Global Mining Europe GmbH	Steinberg, Jens	Germany
Cavanna	Stephan Schech	Germany
CEMAGREF - IRSTEA	Colette Cadiou	France

Stakeholder name	Contact Person	Country
Centiv GmbH	Bethke, Malte	Germany
CETIM (Centre Technique des Industries Mécaniques)	Lucien Bouillane	France
CIEMME s.r.l. - Packaging machines	Gabriella Brennal	Italy
CIRA Italian Aerospace Research Center	Luigi Carrino	Italy
CIRTES	Jérôme Massol	France
CLAAS Saulgau GmbH	Prenzler, Jürgen	Germany
CMV Group SpA	Pietro Di Lauro	Italy
CMW	François Wildenberg	France
Cohausz & Florack Patent- und Rechtsanwälte	Kapfenberger, Jochen	Germany
Colegio de Ingenieros Industriales de Bilbao – Industrial Engineering Association in Bilbao	Javier Muniozguren	Spain
Colombo Filippetti SpA	Gian Franco Colombo	Italy
Conservatoire National des Arts et Métiers (CNAM)	M. Serge Chambaud, M. Thierry Lalande, M. Daniel Thoulouse	France
Continental	Schäfer, Thomas	Germany
Continental Automotive GmbH, S&T A TC	Dörich, Michael	Germany
Continental Automotive Systems	Feigel, Hans-Jörg	Germany
Continental Teves AG & Co. oHG	Vogt, Michael	Germany
Continental VDO Automotive AG	Röder, Jürgen	Germany
Continental VDO Romania	Liviu Hentiu	Romania
ContiTech S.R.L. Romania	Heino Dama	Romania
COPRA	André Molimard	France
Crown Gabelstapler GmbH & Co. KG	Buchmann, Jürgen	Germany
Crozatier Museum of the city of Puy -en-Velay	M. Gilles Grandjean, M. Emmanuel Magne, M. Sébastien Lamy-Au-Rousseau	France
Daimler AG, HPC 990A	Wenigmann, Mario	Germany
DaimlerChrysler AG	Gehring, Ottmar	Germany
DaimlerChrysler AG, HPC 200	Scharff, Robert	Germany
DASSAULT Systèmes	Jean-Louis Constan	France
DBT GmbH Innovation Center Europe	Rüschkamp, Henner	Germany
Desch Antriebstechnik	Keller, Ralf	Germany
Deutsche Glastechnische Gesellschaft e.V.	Roger, Ulrich	Germany
DGA (Délégation Générale à l'Armement)	Delphine Dufour	France
DGG	Schaeffer, H. A.	Germany
Dr. Erich Tretter GmbH	Tretter, Erich	Germany
DSM Research Geleen	Ohlmeier, Bernd	Germany
dSPACE GmbH	Schütte, Herbert	Germany
DÜRR Assembly Products GmbH	Tentrup, Thomas	Germany
Dürr Systems GmbH	Heuschen, Wulf	Germany
Easy-Laser	Edenhammar, Anders	Sweden
Econopak	Bersch	Germany
Edscha Cabrio-Dachsysteme GmbH	Wüllrich, Heinrich	Germany
Eisele Antriebstechnik	Frau Bitzer	Germany

Stakeholder name	Contact Person	Country
Emerson Climate Technologies GmbH	Poysat, Pierre	Belgium
Emhart Glass SA	Leo Diehm	Switzerland
EMI (Electro-Mécanique Industrie)	Alain Lafarge	France
ESR Pollmeier GmbH	Pollmeier, Stefan	Germany
Essmann GmbH	Koch, Ulrich	Germany
etaWind	Brützel, Ulrich	Germany
ETT Verpackungstechnik	Martin Kiesbye	Germany
Expert Maschinenbau GmbH	Konen, Werner	Germany
FAG Industrial Services	Hamers, Luc	Germany
FANUC Robotics Europe S.A.	Stolzenbach, Uwe	Germany
Ferrari SpA	Gianni Lunetta	Italy
Festo AG & Co., Abr. EF-O, Forschung Mechatronik	Neumann, Rüdiger	Germany
FGAN - FKIE	Grandt, Morten	Germany
FGK Gesellschaft für Antriebstechnik mbH	Prof. Rehwald	Germany
FH Dortmund	Peter Markert (IGM)	Germany
FH Regensburg, Fachbereich Maschinenbau	Schaeffer, Thomas	Germany
Fischer & Partner	Fischer, Herwig	Germany
FIZ Karlsruhe - Leibniz Institute for Information Infrastructure		Germany
FLSmidth MAAG Gear	Ursula Mian	Switzerland
FLUIDON, Gesellsch. für Fluidtechnik mbH	Kett, Ronald	Germany
Focke & Co.	Roesler, Burkard	Germany
Food Machinery Española S.A.	Jorge Puig	Spain
Ford Forschungszentrum Aachen, Global Vehicle Dynamics	Wijffels, Lodewijk	Germany
Gerhard Schubert GmbH	Bärbel Beyhl	Germany
Getriebebau NORD GmbH & Co.KG	Bouché, Bernhard	Germany
Geysseel Sondermaschinen GmbH	Sadeli, Anwar	Germany
Goldpack Packaging Systems	Dejan Ljupsa	Slowenien
Graessner GmbH & Co. KG	Vonderschmidt, Reiner	Germany
Grass GmbH	Mintgen, Rolf	Germany
Grimme Landmaschinenfabrik GmbH & Co. KG	Seelke, Carsten	Germany
Groz-Beckert KG	Münster, Bernhard	Germany
GTW-Gleitlagertechnik Weißbacher GmbH	Keusch, Willi	Germany
Hager Electro SA	Jean-Marc Voirpin	France
Harmonic Drive AG	Dominik Kaiser	Germany
Hauni Maschinenbau AG	Wohltmann, Cord	Germany
Heidelberger Druckmaschinen AG	Dr. Henning Niggemann	Germany
Hella KG Hueck & Co.	Hilgers, Ute	Germany
HepcoMotion	Alexander Mend	Germany
Heye International GmbH	Böllert, Jochen	Germany
Hilti Aktiengesellschaft	Dr. Adrian Kauf	Liechtenstein
HUSS Verlag	Torsten Ernst	Germany
I.S.A.tec GmbH	Werner, E.	Germany
IAV GmbH, Abt. MS-T1	Callesen, Matthias	Germany
IBC Wälzlager	Christian Heiliger	Germany

Stakeholder name	Contact Person	Country
Ibendorf GmbH	Dr. Alfred Schaller	Germany
IFTToMM archive (International Federation for the Promotion of Mechanism and Machine Science)	Alessandro Gasparetto, Dr.-Ing. Hanfried Kerle	Italy
igus	Raak, Martin	Germany
Imperia GmbH	Süßmann, Torsten	Germany
INA Schaeffler KG	Schäfer, Jens	Germany
indurad GmbH	Winkel, Reik	Germany
INFO SIT S.A.	Mihai Dumbrava	Romania
Ingenieurbüro Bach	Bach, Christian	Germany
Ingenieurbüro Lambrecht	Prömpeler, Michael	Germany
INMA Branch Timisoara	Dr. Augustin Pop	Romania
INNOKAT	Lippmann	Germany
INPI (National Institute for Intellectual Property)	Steeve Gallizia	France
INSA Lyon	Didier Remond, Adeline Bourdon	France
INSA Toulouse	Marc Sartor	France
Institute and Science Museum, Florence	Dr. Paolo Galluzzi	Italy
Intec GmbH (Simpack)	Eichberger, Alexander	Germany
IQ	Gerhard Reichert	Germany
IQZ Inst. für Qualitäts- und Zuverlässigkeitsmanagement GmbH	Braasch, Andreas	Germany
ISIM Timisoara	Dr. Radu Cojocaru	Romania
ITASCA Consultants GmbH	Konietzky, Heinz	Germany
ITCM	Paul Davis	England
IUP de Bordeaux	Vincent Blanchard	France
IUT du Puy en Velay	Benjamin Albouy-Kissi	France
iwis motorsysteme GmbH & Co. KG	Bodensteiner, Martin	Germany
Ixapack	Gallot, Stéphane	France
JC Interiors Engineering GmbH	Hans-Helmut Miegitz	Germany
Johnson Control International Design Studio Europe	Czinki, Alexander	Germany
Johnson Controls GmbH	Kienke, Ingo	Germany
Johnson Controls Interior GmbH & Co. KG	Schidan, Alexander	Germany
Jrt	Xavier Collin	Korea
Jürgens GmbH & Co.	Haasmann, Mechtild	Germany
Kaunas University of Technology		Lithuania
Kesseböhmer Beschlagsysteme GmbH & Co. KG	Kreiling, Nils	Germany
KHS AG	Ehmer, Wilfried	Germany
Koenig & Bauer AG	Heffler, Victor	Germany
KRE8A	Philip Norman	France
KUKA Roboter GmbH	Riedel, Martin	Germany
Lamb	Jonas, Gerhard	Germany
Lecoq Museum Clermont-Ferrand	Mickaël Le Bras	France
Leibniz Universität Hannover	Prof. Dr.-Ing. R. Braune	Germany
Leroy-Somer	Dominique Chevalerias	France
Library of Dept Mechanics and Aeronautics for University	Rita Lobello	Italy

Stakeholder name	Contact Person	Country
of Rome		
Lindauer Dornier GmbH	Kimmel, Stefan	Germany
Lissmac Maschinenbau GmbH	Kiefer, Klaus	Germany
LoeschPack	Ulrich Kreimeyer	Germany
Lohr Industrie	Didier Mandart	France
Maerz S.R.L.	Lorand Mihaly, Felix Morariu	Romania
Magna	Corinna Hönes	Germany
Makrev	Güneyli, Mehmet	Turkey
Manitz, Finsterwald & Partner GbR Patentanwälte	Ewert, Jörg	Germany
Matra Automobile Engineering	Nicolas Bonnefoy	France
Mercedes-Benz	Silvie Kiefer	Germany
METRIS	Steven Renders	Belgium
Metris Continental Europe	Dom, Astrid	Germany
Michelin	René Zingraff	France
Michelin museum: "L'Aventure Michelin"	M. Stéphane Nicolas	France
Monti Werkzeuge GmbH	Jannaschk, Volker	Germany
MSC Software	Commercial representative for IFMA	France
MSK Verpackungs-Systeme GmbH	Anne Hertz	Germany
M-TECKS EAC	Fabrice Marsaleix, Maurice Pendola	France
Museum of Science and Technology Kharagpur		India
MVG mbH	Pütz, Harald	Germany
Nabtesco Precision	Herr Loew	Germany
National Patent Office		Romania
Neugart GmbH	Cihlar, Bernd	Germany
Neuhaus Neotec	Silke Makoben	Germany
NKE Bearings	Janet Mo	Germany
Nolte NC-Kurventechnik	Nolte, Rainer	Germany
Novopress GmbH & Co. KG	Weck, Bernd	Germany
Oka	Jens Sensfelder	Germany
Otor Velin	Marc Berinstain	France
Paris 6	Philippe Bidaud	France
Parker Hannifin GmbH & Co. KG	Gißler, Josef	Germany
PATSTEC association	Nathalie Vidal	France
PATSTEC Auvergne - Musée Lecoq – Ville de Clermont-Ferrand	Catherine Cuenca	France
Paulmann & Crone GmbH	Lichius, Ulrich	Germany
Pneumax	Pierre Wagner	Germany
Politechnica University of Bucharest		Romania
Porsche	Eckhard Eybl/Franziska Hübner	Germany
Procter & Gamble Service GmbH	Yamamoto, Yoichiro	Germany
PROvendis GmbH	Gehrig, Ilona	Germany
RAND Worldwide	Prinz, Ralf	Germany

Stakeholder name	Contact Person	Country
Red Nacional de Ingeniería Mecánica – National Network of Mechanical Engineering	Fernando Viadero	Spain
Redexim Charterhouse	C.H.M. de Bree	Netherlands
Rexam Glass Germany GmbH	Trillmann, Bernhard	Germany
Rexroth Bosch Group	Silke Lang	Germany
Ricardo GmbH	Baudach, Detlev	Germany
RK Rose+Krieger	Hoffmann, Hartmut	Germany
Robosoft	Vincent Dupourque	France
Rodriguez	Nicole Dahlen	Germany
Rollyx	Strödter, Wilhelm	Germany
roTeg Roboter	Steffen Krenzer	Germany
ROVEMA Verpackungsmaschinen GmbH	Kuss, Gerhard	Germany
SAFIM	Gill Faccioli	France
Saint-Gobain Glass Germany GmbH	Glüsing, Ann-Katrin	Germany
Saint-Gobain Oberland AG	Zimmermann, Harald	Germany
SBS Feintechnik	Axel E. Benz	Germany
Schaefer	Kurt Schaefer	Germany
Schaeffler Gruppe	Katrin Hertlein	Germany
Schauenburg Maschinen- u. Anlagen-Bau GmbH	Moczurad, Jacek	Germany
Schenck Pegasus GmbH	Hüsken, Dieter	Germany
Schindler Handhabetechnik GmbH	Blindenhöfer, Gerd	Germany
Schlafhorst-Saurer	Meyer, Jürgen	Germany
Schmalz	Schmalz, Kurt	Germany
Schmidt-Kupplung GmbH	Jörg Melnický	Germany
Schuler Pressen GmbH & Co. KG	Schmeink, Martin	Germany
Schunk GmbH & Co.KG	Schuster, Andreas	Germany
Senzani Brevetti S.p.A.	Adele Rava	Italy
Several universities		India
SEW Eurodrive	Stefan Prüfer	Germany
Sidel	Micheal Lane	UK
Siemens AG Corporate Technology CT T P	Spiegelberg, Gernot	Germany
Siemens AG, Industry Sector, I MO RS PT Einkauf	Mellen, Michael	Germany
Siemens AG, Transportation Systems, TS TR DH 01	Hemmerich, Dirk	Germany
Siemens Hydraulik-Ring	Neuhaus, Rolf	Germany
SIG Combibloc Systems GmbH	Mbarek, Taoufik	Germany
SIG-PLASTICS	Lentz, Norbert	Germany
simertis GmbH	Haut, Holger	Germany
Sipa S.p.A.	Uliana, Alberto	Italy
Skals Maskinfabrik A/S	Poul Henningsen	Dänemark
SMS Meer GmbH	Külchen, Reiner	Germany
Sociedad Bilbaina	Ana Villacorta	Spain
Somaschini	Alexander Lehmann	Italy
SPN Schwaben Präzision	Kircheis, Ralf	Germany
Stabilus GmbH, Abt. SDN	Bochen, Marian	Germany
STG-BEIKIRCH GmbH & Co. KG	Wienböker, Frank	Germany

Stakeholder name	Contact Person	Country
Stroedter Handhabungstechnik GmbH	Strödter, Wilhelm	Germany
Sumitomo Cyclo Drive	Frau Loichinger	Germany
t+h ingema ingenieurgesellschaft mbH	Tücks, Hermann	Germany
Takata-Petri Romania S.R.L.	Liviu Barnutiu	Romania
Technical University Cluj-Napoca	prof. Ph.D. Dan Mândru, prof. Ph.D. Stan Sergiu	Romania
Technical University Gheorghe Asachi of Iasi	prof. Ph.D. Ion Doroftei	Romania
Tecnidea Cidue	Enrico Caueffo	Italy
TEEPACK Spezialmaschinen GmbH & Co. KG	Lambertz, Stefan	Germany
THALES Optronique	Joël Morillon	France
Theegarten-Pactec GmbH & Co. KG	Röhm, Egbert	Germany
THIMON - Siège social	MONGELLAZ, Myriam	France
ThyssenKrupp Presta AG	Meyer, Martin	Germany
Transilvania University of Brasov	prof. Ph.D. Radu Velicu	Romania
TRW Romania S.R.L.	Dipl.-Ing. Robert Mazuch	Romania
TSR	Loic Belloir	France
Tsubaki	Jörg Cada	Germany
TTC3 VSA	Berbohm, Volker	Germany
University of the Basque Country	Enrique Amezua	Spain
Université Paris 6	Philippe Bidaud	France
University "Dunarea de Jos" Galati		Romania
University Laval	Prof. Gosselin	Canada
Urenco Enrichment Technology	vor dem Esche, Rainer	Germany
VALEO	ROUX, Johanna	France
VDI-Verlag		Germany
VDMA Deputy Managing Director	Golz, Peter	Germany
Venturi	Nicolas Mauduit	Monaco
Voith Engineering Services GmbH, Road & Rail	Franitza, Daniel	Germany
Voith Paper GmbH	Töppich, Karl-Heinz	Germany
Volkswagen	Christiane Obert	Germany
Volkswagen AG	Ruf, Heiko	Germany
von Kreisler Selting Werner	Dallmeyer, Georg	Germany
VSA GmbH	Töpfer, Conrad	Germany
W+D Langhammer GmbH	Stephan Schlottoff	Germany
Webasto-Edscha Cabrio GmbH	Pecho, Walter	Germany
Weber Maschinenbau GmbH Breidenbach	Rother, Ingo	Germany
Westfalia-Automotive GmbH & Co. KG	Benda, Thomas	Germany
Wiegand & Söhne & Co. KG	Mann, Karl-Heinz	Germany
Wildanger Kehrwald Graf v. Schwerin Rechtsanwälte	Graf von Schwerin, Wolf	Germany
Wittenstein AG	Kalker, Thomas	Germany
Witte-Velbert	Blanke, Jochem	Germany
ZF Friedrichshafen	Gisela Mattes (Archiv), Dr. Harald Naunheimer	Germany
ZKL Bearings	Marcella Procházková	Tschechien
ZSK Stickmaschinen GmbH	Zons, Karl-Hubert	Germany

Annex II “Questionnaire of stakeholders”

For future activities the feedback from relevant stakeholders is very important. In order to present the full result of *thinkMOTION* project (high number of items) the request to the stakeholders was made at the end of the project. It includes three parts:

- Cover letter
- Information sheet about *thinkMOTION*/DMG-Lib
- Questionnaire

For reasons of time, the questionnaires will be evaluated after the project period.

Dear Sir or Madam

We want to inform you, that the worldwide largest database DMG-Lib ([Digital Mechanism- and Gear-Library](#)) dedicated to mechanical motion technology and mechanism theory with more than 60.000 data sets is online. This library is available with online access. You will find more than 2.000 mechanism models, 1.600 mechanism descriptions, 1.000 CAD-models, 35.000 images and extensive literature (19.000 books and papers) and many other content types on www.dmg-lib.org related to the above mentioned topics. Please find detailed information on the next pages.

You will be convinced that DMG-Lib is a suitable web platform regarding your future research and conceptual design (finding solutions for your motion tasks). Thereby, the large collection of mechanism and gear models as well as the full-text search in all documents using semantic links will support your daily design work.

You can support DMG-Lib:

- You can **contribute in collecting** a huge amount of information on mechanisms and gears by giving your agreement for providing your information. Besides, it gives you the opportunity to introduce your range of products (Text documents, images, videos, animations, etc.) to a group of experts and interested people. Please contact Mr. Kurtenbach.
- You as single person or whole company can become a **registered member** of the association [DMG-Lib e.V.](#), just by applying using the form at the website.
- Additionally you can help us by filling out the **short questionnaire on the following pages**.

For more information don't hesitate to contact us:

Department of Mechanism Theory and Dynamics of Machines at RWTH Aachen University
Dipl.-Ing. Stefan Kurtenbach, kurtenbach@igm.rwth-aachen.de, 0049/241 80 95561
Kackertstraße 16-18
52072 Aachen
Germany

Kind regards,

Univ.-Prof. Dr.-Ing. Burkhard Corves

Postadresse:
Institut für Getriebetechnik
und Maschinendynamik
RWTH Aachen, D 52056 Aachen

Dienstgebäude:
Institut für Getriebetechnik
und Maschinendynamik
Kackertstr. 16-18, D 52072 Aachen

Telefon:
+49 241 80 95553
Telefax:
+49 241 80 92263

E-Mail:
mbox@igm.rwth-aachen.de

Fig. 14: Cover letter: English

Further Information on the DMG-Lib

The [Digital Mechanism- and Gear-Library](#) (DMG-Lib) is a high performance center for collecting, storing, connecting and presenting information and knowledge on motion systems in general. More detailed the DMG-Lib contains different content types like text documents (literature), pictures, mechanism descriptions, movies, interactive animations, CAx-Models introducing the functionality and giving further information on mechanisms and gears. The DMG-Lib provides an online access.

In the course of the initiative “Digital Europe” the European Commission intends to create a comprehensive digital library (Europeana), which does not only allocate European culture but also presents and conserves it for further generations. In order to improve Europeana with valuably historical and cultural information numerous projects of different facilities are promoted. One of those projects is thinkMOTION.

thinkMOTION – DMG-Lib goes Europeana

Since the technical achievements of past and present represent a significant part of European culture, the project *thinkMOTION* has been initialized for expanding Europeana with content of mechanisms and gears. Within the *thinkMOTION* project the DMG-Lib’s content is transmitted to Europeana. Furthermore the number of data sets saved in the DMG-Lib has been continuously increased within the project *thinkMOTION* to more than 60.000 data sets. The content has been gathered and digitalized for this project since 2010 until 2013.



DMG-Lib provides a collection of different content in the field of motion systems

The project consortium consists of the following six partners from different European countries:

- Ilmenau University of Technology, Germany
- RWTH Aachen University, Germany
- Universitatea Politehnica din Timisoara, Romania
- Università di Cassino, Italy
- Universidad de Pais Vasco, Spain
- IFMA, Clermont-Ferrand, France

DMG-Lib e.V.

In order to assure the continuity of the library, the association [DMG-Lib e.V.](#) was established. Intention of this association is the encouragement of science, research and education especially regarding the support and promotion of mechanism science and technology. Every interested person and company can become a registered member of the association [DMG-Lib e.V.](#) just by using the form on the website.

Postadresse:
Institut für Getriebetechnik
und Maschinendynamik
RWTH Aachen, D 52056 Aachen

Dienstgebäude:
Institut für Getriebetechnik
und Maschinendynamik
Kackertstr. 16-18, D 52072 Aachen

Telefon:
+49 241 80 95553
Telefax:
+49 241 80 92263

E-Mail:
mbox@igm.rwth-aachen.de

Fig. 15: Flyer about *thinkMotion* / DMG-Lib: English

Comments on DMG-Lib

1. Do you know DMG-Lib already?

2. Do you get in touch with the different content types (Videos, animations, etc.)?

3. Which ways of presenting mechanisms should be improved/are missing currently?

4. Do you like the design of the website (clarity, user-friendliness, etc.)?

5. Do you have suggestions according to the performance?

6. When you searched for a certain mechanism, how quick did you come to a result?

7. Did DMG-Lib help you already?

8. I want to become registered member of DMG-Lib e.V.! Please send me the application form.

Yes, I want to become member

No, I don't want to become member

9. Please add me to the contact list for the newsletter.

Yes, I want to join

No, I don't want to join

10. Other Comments:

Postadresse:
Institut für Getriebetechnik
und Maschinendynamik
RWTH Aachen, D 52056 Aachen

Dienstgebäude:
Institut für Getriebetechnik
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E-Mail:
mbox@igm.rwth-aachen.de

Fig. 16: Questionnaire: English

Univ.-Prof. Dr.-Ing. B. Corves
 Institut für Getriebetechnik und Maschinendynamik
 RWTH Aachen, 52074 Aachen

Sehr geehrte Damen und Herren,

sehr gerne möchten wir Sie informieren, dass die weltweit größte Datenbank für Mechanismen- und Getriebetechnik, die DMG-Lib (Digitale Mechanismen- und Getriebelbibliothek), nun über mehr als 60.000 Datensätze verfügt. In dieser Bibliothek finden Sie mehr als 2.000 Getriebemodelle, 1.600 Getriebebeschreibungen, 1.000 CAD-Modelle, 35.000 Abbildungen und umfangreiche Literatur (19.000 Bücher und Veröffentlichungen) sowie weitere Inhalte in Bezug auf die oben beschriebenen Themen auf www.dmg-lib.org. Weitere Details finden Sie der nächsten Seite. Sie werden überzeugt sein, dass die DMG-Lib eine geeignete Plattform für Ihre zukünftige Forschung und Konzeptentwicklungen darstellt (Lösungsfindung für Bewegungsaufgaben jeder Art). Insbesondere die umfangreiche Sammlung an Mechanismen- und Getriebe-Modellen sowie die Volltextsuche über semantische Verknüpfungen in allen Dokumenten erleichtern Ihre tägliche Konstruktionsarbeit.

Sie können die DMG-Lib noch unterstützen:

- Sie können durch Bereitstellen Ihrer Informationen über Mechanismen und Getriebe dazu beitragen, eine umfassende Mechanismen- und Getriebelbibliothek zu erstellen. Überdies werden Ihre eigenen Produkte (Textdokumente, Bilder, Videos, Animationen, usw.) einer Gruppe von Experten und Interessierten vorgestellt. Bitte kontaktieren Sie bei Interesse Frau Comely.
- Sowohl als Privatperson als auch als Unternehmen können Sie **registriertes Mitglied** des Vereins DMG-Lib e.V. werden, indem Sie einfach das Anmeldeformular auf der Homepage ausfüllen.
- Darüber hinaus können Sie uns unterstützen, indem Sie auf der folgenden Seite den **Fragebogen ausfüllen**.

Für weitere Informationen können Sie uns gerne kontaktieren:
 Institut für Getriebetechnik und Maschinendynamik der RWTH Aachen
 Claudia Comely, comely@mech.rwth-aachen.de, 0049(0)92263
 Kackertstraße 16-18
 52074 Aachen

Mit freundlichen Grüßen,
 Univ.-Prof. Dr.-Ing. Burkhard Corves

Postadresse: Institut für Getriebetechnik und Maschinendynamik RWTH Aachen, D-52074 Aachen	Dienstgebäude: Institut für Getriebetechnik und Maschinendynamik Kackertstr. 16-18, D-52074 Aachen	Telefon: +49 241 80 95553 Telefax: +49 241 80 92263	E-Mail: mdb@igm.rwth-aachen.de
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Informationen zu DMG-Lib

Die DMG-Lib ist eine hoch entwickelte Plattform zum Sammeln, Verwalten, Vernetzen und Präsentieren von Information und Wissen über Bewegungssysteme. Genauer enthält die DMG-Lib verschiedene Datentypen wie Textdokumente (Literatur), Bilder, Mechanismenbeschreibungen, Videos, interaktive Animationen, CAD-Modelle, etc., wodurch Funktionsweisen veranschaulicht und weitere Informationen über die Mechanismen und Getriebe gegeben werden. Alle Inhalte werden im Open Access bereitgestellt.

Im Zuge der Initiative „Digitales Europa“ strebt die Europäische Kommission den Aufbau einer umfangreichen digitalen Bibliothek (Europeana) an, in der das kulturelle Erbe Europas gesammelt, präsentiert und zugleich für spätere Generationen bewahrt wird. Dazu werden Projekte verschiedenster fachlicher Herkunft gefördert, deren Ziel die Anreicherung der Europeana mit historisch und kulturell wertvollen Materialien ist. Eines dieser Projekte ist *thinkMOTION*.

thinkMOTION – DMG-Lib goes Europeana
 Da die technischen Errungenschaften der Vergangenheit und Gegenwart ein bedeutendes europäisches Kulturgut darstellen, ist es das Ziel des Projektes *thinkMOTION*, Europeana mit Inhalten der Mechanismen- und Getriebetechnik zu erweitern. Innerhalb des Projektes *thinkMOTION* wird der Inhalt der DMG-Lib an Europeana weitergegeben. Außerdem ist im Zuge des Projektes *thinkMOTION* die Anzahl der Datensätze in der DMG-Lib auf 60.000 erhöht worden. Das Sammeln und Digitalisieren der Daten hat im Zeitraum zwischen 2010 und 2013 stattgefunden.

Zum Konsortium des Projektes gehören die folgenden sechs Partner aus verschiedenen europäischen Ländern:

- Ilmenau University of Technology, Germany
- RWTH Aachen University, Germany
- Universitatea Politehnica din Timisoara, Romania
- Università di Cassino, Italy
- Universidad de Pais Vasco, Spain
- IFMA, Clermont-Ferrand, France

DMG-Lib e.V.
 Um den Fortbestand der Datenbank sicherzustellen, wurde der Verein DMG-Lib e.V. gegründet. Ziel des Vereins ist die Förderung der Wissenschaft, Forschung und Bildung, insbesondere in Bezug auf die Unterstützung und Förderung der Mechanismentechnik. Bei Interesse können Personen und Unternehmen registrierte Mitglieder des Vereins DMG-Lib e.V. werden. Das entsprechende Anmeldeformular kann direkt auf der Homepage ausgefüllt werden.

Postadresse: Institut für Getriebetechnik und Maschinendynamik RWTH Aachen, D-52074 Aachen	Dienstgebäude: Institut für Getriebetechnik und Maschinendynamik Kackertstr. 16-18, D-52074 Aachen	Telefon: +49 241 80 95553 Telefax: +49 241 80 92263	E-Mail: mdb@igm.rwth-aachen.de
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Meinungen zur DMG-Lib

- Kennen Sie die DMG-Lib bereits?
- Sind Sie vertraut mit den verschiedenen Dateitypen (Videos, Animationen, usw.)?
- Welche Darstellungsform von Getrieben sollte noch verbessert werden/fehlt momentan?
- Sind Sie mit dem Design der Website (Übersichtlichkeit, Benutzerfreundlichkeit, etc.) zufrieden?
- Haben Sie Vorschläge bezüglich der Darstellung?
- Wie schnell kamen Sie zu einem Ergebnis, als Sie nach bestimmten Mechanismen suchten?
- Hat die DMG-Lib Ihnen bereits weitergeholfen?
- Ich möchte registriertes Mitglied des DMG-Lib e.V. werden! Bitte senden Sie mir ein Antragsformular.
 Ja, ich möchte Mitglied werden Nein, ich möchte kein Mitglied werden
- Bitte setzen Sie mich auf die Empfängerliste des Newsletters.
 Ja, ich möchte den Newsletter erhalten Nein, ich möchte keinen Newsletter erhalten
- Weitere Kommentare:

Postadresse: Institut für Getriebetechnik und Maschinendynamik RWTH Aachen, D-52074 Aachen	Dienstgebäude: Institut für Getriebetechnik und Maschinendynamik Kackertstr. 16-18, D-52074 Aachen	Telefon: +49 241 80 95553 Telefax: +49 241 80 92263	E-Mail: mdb@igm.rwth-aachen.de
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Fig. 17: Request to the stakeholders: German

Univ.-Prof. Dr.-Ing. B. Corves – Department of Mechanism Theory and Dynamics of Machines, RWTH Aachen, 52074 Aachen

Gentile Direttore,
 con la presente si informa che DMG-Lib (Digital Mechanism and Gear Library) è on line. DMG-Lib è il data base internazionale con il più grande archivio dedicato alla tecnologia meccanica del movimento ed alla teoria dei meccanismi con più di 60.000 item. Questa biblioteca è ora accessibile on line su web. Vi troverà più di 2.000 modelli di meccanismi, 1.600 descrizioni di meccanismi, 1.000 modelli CAD, 35.000 immagini, ed una ampia letteratura (19.000 libri e articoli), oltre altri contenuti relativi ai menzionati argomenti.
 L'indirizzo di accesso è: www.dmg-lib.org
 Nelle prossime pagine troverà ulteriori informazioni.
 Si potrà convincere che DMG-Lib è una conveniente piattaforma per la sua ricerca e progettazione concettuale (trovando soluzioni per le sue finalità di movimento).
 Perciò, questa ampia raccolta di modelli di meccanismi ed ingranaggi le sarà di supporto nella sua giornaliera attività di lavoro utilizzando anche la ricerca di documenti tramite i collegamenti semantici nel database.

Può sostenere DMG-Lib nei seguenti modi:

- Può contribuire alla collezione di ampia qualità di informazioni sui meccanismi ed ingranaggi dando un suo consenso per fornire vostre informazioni. Inoltre, questo vi dà l'opportunità di introdurre i vostri prodotti (documenti, immagini, video, animazioni, etc.) per esperti e persone interessate. In caso, per favore contattate il Sig. Kurtenbach.
- Come singola persona o istituzione può divenire membro registrato all'associazione DMG-Lib e.V. tramite la compilazione della scheda su web;
- Inoltre, ci può aiutare compilando il breve questionario nelle pagine successive.

Per maggiori informazioni ci può contattare a:

Prof Marco Ceccarelli
 LARM, Laboratorio di Robotica e Meccatronica
 DICeM, Università di Cassino e del Lazio Meridionale
 Via Di BIASIO 43, 03043 Cassino (Fr)
 PH: +0776-2993663 email: ceccarelli@unicas.it

Cordiali saluti
 Prof Marco Ceccarelli
 20 Maggio 2013

Postadresse: Institut für Getriebetechnik und Maschinendynamik, RWTH Aachen, D 52056 Aachen
Direktgebäude: Institut für Getriebetechnik und Maschinendynamik, Kackertstr. 16-18, D 52074 Aachen
Telefon: +49 241 80 95553
Telefax: +49 241 80 92260
E-Mail: mico@igmr.rwth-aachen.de

Informazioni addizionali su DMG-Lib

DMG-Lib (Digital Mechanism and Gear Library) è un sito ad alte prestazioni per la collezione, archiviazione, collegamento, presentazione di informazioni e conoscenze sui sistemi legati in generale al movimento. In maggior dettaglio DMG-Lib contiene differenti tipi di item come documenti (letteratura), immagini, descrizioni di meccanismi, video, animazioni interattive, a modelli CAx che mostrano funzionalità e danno ulteriori informazioni su meccanismi ed ingranaggi. DMG-Lib permette accesso on line.

Nell'ambito dell'iniziativa "Digital Europe", la Commissione Europea ha la finalità di realizzare una ampia biblioteca digitale (Europeana), che non solo contiene la cultura Europea ma anche la presenta e la conserva per le future generazioni. Al fine di migliorare Europea con informazioni di valore di tipo storico e culturale, sono stati promossi numerosi progetti per svariate capacità. Uno di questi progetti è thinkMotion.

Think Motion – DMG-Lib goes European
 Poiché successi tecnici del passato e del presente rappresentano una parte significativa della cultura europea, si è iniziato il progetto thinkMotion per ampliare il sito web Europea con contenuti su meccanismi ed ingranaggi. Tramite il progetto thinkMotion i contenuti di DMG-Lib sono trasmessi in Europea. Inoltre i dati salvati in DMG-Lib sono continuamente accresciuti tramite il progetto thinkMotion fino a più di 60.000 dati. Dai sono stati raccolti e digitalizzati per questo progetto 2010 fino al 2013.

Il consorzio del progetto consiste dei seguenti sei partner da differenti paesi europei:

- Ilmenau University of Technology, Germany
- RWTH Aachen University, Germany
- Universitatea Politehnica din Timisoara, Romania
- Università di Cassino, Italy
- Universidad de Pais Vasco, Spain
- IFMA, Clermont-Ferrand, France

DMG-Lib e.V.
 Al fine di assicurare continuità della biblioteca, è stata costituita l'associazione DMG-Lib e.V. La finalità dell'associazione prevede l'incoraggiamento alla scienza, ricerca ed educazione con particolare interesse allo sviluppo e promozione della scienza e tecnologia dei meccanismi. Qualunque persona o società interessata può registrarsi come membro dell'associazione DMG-Lib e.V. utilizzando il formulario disponibile sul sito web [DMG-Lib e.V.](http://www.dmg-lib.org)

Postadresse: Institut für Getriebetechnik und Maschinendynamik, RWTH Aachen, D 52056 Aachen
Direktgebäude: Institut für Getriebetechnik und Maschinendynamik, Kackertstr. 16-18, D 52074 Aachen
Telefon: +49 241 80 95553
Telefax: +49 241 80 92260
E-Mail: mico@igmr.rwth-aachen.de




3

Commenti su DMG-Lib

- conosce già DMG-Lib?
- ha visionato i differenti tipi di item (video, animazioni, ecc)?
- quale forma di presentazione di meccanismi dovrebbe essere migliorato o è attualmente assente?
- le piace la struttura della pagine web (chiarezza, facile usa da utenti, ecc.)?
- ha suggerimenti per le presentazioni?
- quando ha cercato un meccanismo, quanto velocemente è riuscito ad ottenere un risultato?
- DMG-Lib la ha già aiutata in passato?
- desidero registrarmi a DMG-Lib e.V.! Per favore inviatemi la scheda di adesione se, voglio registrarmi
 sì, voglio registrarmi no, non voglio registrarmi
- per favore aggiungetemi alla mailing list per la newsletter
 sì, vorrei la newsletter no, non vorrei la newsletter
- altri commenti

Postadresse: Institut für Getriebetechnik und Maschinendynamik, RWTH Aachen, D 52056 Aachen
Direktgebäude: Institut für Getriebetechnik und Maschinendynamik, Kackertstr. 16-18, D 52074 Aachen
Telefon: +49 241 80 95553
Telefax: +49 241 80 92260
E-Mail: mico@igmr.rwth-aachen.de

Fig. 18: Request to the stakeholders: Italian

Conf. Dr.-Ing. E.-Ch. Lovaș Departamentul de Mecanică, Facultatea de Mecanică, Universitatea "Politehnica" din Timișoara, 300222

Sîmțată Doamnă, Sîmțate Dornn

Dorim s  v  inform m c  baza de date cea mai extins  la nivel mondial DMG-Lib ([Digital Mechanism-and-Gear-Library](http://DigitalMechanism-and-Gear-Library)) dedicat  tehnicilor de m surare mecanic  și teoriei mecanismelor cu mai mult de 60.000 de seturi de date este online. Aceast  bibliotec  este disponibil  cu acces online. Veți găsi mai mult de 2.000 de modele de mecanisme, 1.600 de descrieri de mecanisme, 1.000 de modele CAD, 35.000 de imagini și literatur  extins  (19.000 de cărți și lucr ri științifice) și multe alte tipuri de conținut la www.dmg-lib.org în legătur  cu topicele menționate mai sus. V  rug m s  consultați informațiile detaliate de pe paginile urm toare.

Veți fi convinși c  DMG-Lib este o platform web potrivit  pentru cercet ile dumneavoastr  viitoare și design-ul conceptual (pentru găsirea de soluții la problemele de mișcare). De acces, colecția extins  de modele de mecanisme și transmisii mecanice, ca și c tutarea full-text în toate documentele utiliz nd leg turi semantice v  vor sprijini în activitatea zilnic  de proiectare.

Puteți sprijini DMG-Lib:

- Puteți **contribui la colectarea** unei cantit ți imense de informații despre mecanisme și transmisii mecanice prin acordul pentru furnizarea informațiilor dumneavoastr . În plus, v  d  posibilitatea de a prezenta gama dumneavoastr  de produse (Documente text, imagini, video, animații, etc.) unui grup de experți și persoane interesate. V  rug m s  îl contactați pe D. Kurtenbach.
- Dumneavoastr  ca persoan  individual  sau întreaga companie puteți deveni **membru înregistrat** al asociației DMG-Lib e.V. doar aplic nd prin utilizarea formularului de pe website.
- Mai mult, ne puteți ajuta prin completarea **chestionarului scurt de pe paginile urm toare**.

Pentru mai multe informații, nu ezitați s  ne contactați:
 Departamentul de Mecanic , Facultatea de Mecanic 
 Dr.-Ing. Dan Măgulescu, dan.magulescu@mecc.upit.ro
 +40 0256 40 3569
 Bulevardul Mihail Viteazul nr.1
 300222 Timișoara
 România

Cu sîmț ,
 Conf. Dr.-Ing. Erwin-Christian Lovaș

Adresă: Departamentul de Mecanic , Facultatea de Mecanic , Timișoara 300222
Telefon: +40 0256 40 3569
E-Mail: dan.magulescu@mecc.upit.ro

2

Mai multe informații despre DMG-Lib

Digital Mechanism- and Gear-Library (DMG-Lib) este un centru de performanță ridicat pentru colectarea, depozitarea, conectarea și prezentarea informațiilor și cunoștințelor despre sisteme mobile în general. Mai amănunțit DMG-Lib cuprinde diferite tipuri de conținut ca de exemplu documente text, poze, descrierea mecanismelor, filme, animații interactive, modele CAx prezent nd descrierea funcționalit ții și d nd mai multe informații despre mecanisme și transmisii mecanice. DMG-Lib furnizeaz  acces direct.

În cadrul inițiativii "Digital Europe", Comisia European  intenționeaz  s  creeze o bibliotec  digital  complet  (European), în care nu numai se aloc  spațiu culturii europene, ci și o prezent  și o conserv  pentru generațiile viitoare. În scopul de a îmbunătăți European  cu informații de valoare istoric  și cultural  sunt promovate numeroase proiecte cu facilități diferite. Unul dintre aceste proiecte este thinkMOTION.

thinkMOTION – DMG-Lib goes European

Deoarece realiz rile tehnice din trecut și prezent reprezint  o parte semnificativ  a culturii europene, a fost inițiat proiectul thinkMOTION pentru a extinde European  cu conținut de mecanisme și transmisii mecanice. În cadrul proiectului thinkMOTION, conținutul DMG-Lib este transmis la European . În plus, num rul de seturi de date salvate în DMG-Lib a crescut continuu în cadrul proiectului thinkMOTION la mai mult de 60.000. Conținutul a fost adunat și digitalizat pentru acest proiect din 2010 p n  în 2013.

Consortiul proiectului const  din urm torii șase parteneri din diferite ț ri europene:

- Inhenau University of Technology, Germany
- RWTH Aachen University, Germany
- Universitatea Politehnic  din Timișoara, Romania
- Universit  di Cassino, Italy
- Universidad de Pais Vasco, Spain
- IFMA, Clermont-Ferrand, France

DMG-Lib e.V.

În scopul de a asigura continuitatea imbog țirii bibliotecii de date, s-a inițiat asociația DMG-Lib e.V. Intenția acestei asocierii este de a incuraja știința, cercetarea și educația în ceea ce privește mai ales susținerea și promovarea științei și tehnicii mecanismelor și a transmisior mecanice. Fiecare persoan  și companie interesat  poate deveni un membru înregistrat al Asociației DMG-Lib e.V doar folosind formularul de pe website-ul DMG-Lib e.V.

Adresă: Departamentul de Mecanic , Facultatea de Mecanic , Timișoara 300222
Telefon: +40 0256 40 3569
E-Mail: dan.magulescu@mecc.upit.ro


3

Comentarii despre DMG-Lib

- Cunoșteți deja DMG-Lib?
- Veniiți în contact cu diferite tipuri de conținut (Video, animații, etc.)?
- Ce moduri de prezentare a mecanismelor ar trebui perfecționate sau lipsesc în prezent?
- Cum v  place website-ul (claritate, ușor de utilizat, prietenos, etc.)?
- Aveți sugestii cu privire la performanță?
- C nd ați c tut un anumit tip de mecanism în c t timp ați primit un rezultat?
- DMG-Lib v  ajutat deja?
- Dorese s  deveni membru înregistrat al DMG-Lib e.V.! V  rog s  imi transmiteți formularul de aplicare.
 Da, Dorese sa devin membru Nu, nu dorese s  devin membru
- V  rog adaug ți-m  la lista de contacte pentru newsletter.
 Da, dorese sa m  al tur Nu, nu dorese sa m  al tur
- Alte observații:



Adresă: Departamentul de Mecanic , Facultatea de Mecanic , Timișoara 300222
Telefon: +40 0256 40 3569
E-Mail: dan.magulescu@mecc.upit.ro

Fig. 19: Request to the stakeholders: Rumanian



 Dpto. de Ingeniería Mecánica

 Ingeniería Mecánica Sala

Estimado señor / señora:

Nos complace informarle que ya está disponible online la mayor base de datos mundial dedicada a los sistemas mecánicos y a la Teoría de Mecanismos ([Digital Mechanism and Gear Library](http://www.dmg-lib.org)). Dicha biblioteca, accesible desde la web, contiene más de 60.000 entradas. En www.dmg-lib.org se puede encontrar información relativa a más de 2.000 modelos de mecanismos, 1.600 descripciones detalladas de mecanismos, 1.000 modelos CAD, 35.000 imágenes, una extensa colección de literatura compuesta por más de 19.000 libros y artículos y otros contenidos diversos.

DMG-Lib es una herramienta muy interesante en tareas como la investigación y el diseño conceptual (nuevas soluciones para realizar una determinada tarea). La enorme colección de mecanismos y sistemas de engranajes, así como la búsqueda mediante los hipervínculos existentes en todos los documentos disponibles puede ser de inestimable ayuda en sus tareas diarias de diseño.

Puede colaborar con las actividades de DMG-Lib de las siguientes formas:


- **Aportando a DMG-Lib** información relativa a mecanismos y sistemas de engranajes (es necesaria su autorización para la utilización de dicho material). Además esto le ofrecerá la oportunidad de hacer más visible sus productos (aportando documentos, imágenes, videos, animaciones, etc) y llagar a un gran número de expertos y personas interesadas en los sistemas mecánicos. Para ello debe contactar con el Sr. Kunterbach.
- Convirtiéndose en un miembro registrado de la Asociación [DMG-Lib e.V.](http://www.dmg-lib.org) sin más que rellenar el formulario disponible en la página web. Existe la posibilidad de registrarse como miembro individual o como empresa.
- Rellenando el **breve cuestionario adjunto** que nos será de mucha utilidad.

Para más información no dude en contactar con nosotros:

D. Victor Petuya
 Departamento de Ingeniería Mecánica. Escuela Técnica Superior de Ingeniería de Bilbao, UPV/EHU.
 Alameda de Urquijo, s/n • 48013 Bilbao, España.
victor.petuya@ehu.es
 Tfn: +34 946 914 091



Sin otro particular se despide,
 Victor Petuya
 Departamento de Ingeniería Mecánica UPV/EHU

Escuela Técnica Superior de Ingeniería de Bilbao
 Alameda de Urquijo, s/n • 48013 Bilbao, España • Tfno. (+34) 94 601 20 00 • Fax (+34) 94 601 42 15



 Dpto. de Ingeniería Mecánica

 Ingeniería Mecánica Sala

Información de utilidad sobre DMG-Lib

La biblioteca [Digital Mechanism and Gear Library](http://www.dmg-lib.org) (DMG-Lib) es un avanzado sitio web que permite el archivo, conexión y presentación de una gran cantidad de información y conocimiento relacionado con los sistemas mecánicos. En concreto, en DMG-Lib se pueden encontrar diferentes tipos de contenidos como los documentos de texto (literatura), imágenes y dibujos, descripciones de mecanismos, videos, animaciones interactivas y modelos CAD que proporcionan al usuario información avanzada sobre el diseño y funcionamiento de una amplia gama de mecanismos y sistemas de engranajes. Todo ello mediante un sencillo acceso online.

En el marco de la iniciativa "Europa Digital" la Comisión Europea pretende crear una extensa biblioteca digital (Europeana) en la que no sólo se archive la cultura Europea sino que ésta se presente y conserve para las futuras generaciones. Para ello, se han puesto en marcha numerosos proyectos de cara a dotar a Europeana con una información histórica y cultural valiosa. Uno de estos proyectos es el thinkMOTION.

thinkMOTION – DMG-Lib goes Europeana

Dado que los avances y logros técnicos del pasado y presente constituyen una parte significativa de la cultura europea, el proyecto thinkMOTION se ha lanzado con el objeto de incluir en Europeana información relativa a mecanismos y engranajes. Es en el marco de este proyecto donde toda la información disponible en DMG-Lib será incorporada a Europeana. Además la información existente en DMG-Lib será ampliada en más de 60.000 nuevas entradas. Este nuevo contenido ha sido recopilado y digitalizado dentro de las actividades del proyecto entre los años 2010 y 2013.


El consorcio del proyecto lo forman seis socios de sus países europeos distintos:

- Ilmenau University of Technology, Germany
- RWTH Aachen University, Germany
- Universitatea Politehnica din Timisoara, Romania
- Università di Cassino, Italy
- Universidad de País Vasco UPV/EHU, Spain
- IFMA, Clermont-Ferrand, France

DMG-Lib e.V.



Para garantizar la continuidad de la biblioteca, se ha creado la Asociación [DMG-Lib e.V.](http://www.dmg-lib.org). El fin principal de la Asociación es la promoción de la ciencia, la investigación y la educación especialmente en el campo de la Teoría de Mecanismos. Cualquier persona o empresa interesada puede convertirse en miembro registrado de la asociación [DMG-Lib e.V.](http://www.dmg-lib.org) rellenando el formulario disponible en su página web.

Escuela Técnica Superior de Ingeniería de Bilbao
 Alameda de Urquijo, s/n • 48013 Bilbao, España • Tfno. (+34) 94 601 20 00 • Fax (+34) 94 601 42 15



 Dpto. de Ingeniería Mecánica

 Ingeniería Mecánica Sala

Cuestionario sobre DMG-Lib

1. ¿Conocía DMG-Lib con anterioridad?
2. ¿Ha podido explorar los diferentes tipos de contenido? (Videos, animaciones, etc)
 ¿Qué le han parecido?
3. ¿Qué información o forma de presentar la misma podría ser mejorada?
4. ¿Le resulta atractivo el diseño de la página web? Claridad, organización, etc.
5. ¿Tiene sugerencias relativas al funcionamiento de la web de DMG-Lib?
6. Cuando está buscando información útil sobre un determinado mecanismo, ¿cuánto le cuesta localizar dicha información?
7. ¿Le resulta útil DMG-Lib en la actualidad?
8. Me gustaría ser un miembro registrado DMG-Lib e.V.! Envíemle por favor el formulario de registro.
 Sí, deseo ser miembro. No deseo ser miembro
9. Por favor, añádam a la lista de distribución de la Newsletter de DMG-Lib.
 Deseo suscribirme. No deseo suscribirme.
10. Comentarios adicionales:

Escuela Técnica Superior de Ingeniería de Bilbao
 Alameda de Urquijo, s/n • 48013 Bilbao, España • Tfno. (+34) 94 601 20 00 • Fax (+34) 94 601 42 15

Fig. 20: Request to the stakeholders: Spanish

Ministère de l'Enseignement Supérieur et de la Recherche
 Dr. Jean-Christophe FAUROUX
 Maître de conférences
 Institut Pascal /
 Equipe Mécatronique, Mécanismes & Syst. Industriels
 Institut Français de Mécatronique Avancée (IFMA)
 Campus universitaire de
 Clermont-Ferrand / Les Cèzeaux
 BP 265, 63176 AUBIERE Cedex
 Tél : 04 73 28 80 50
 Fax : 04 73 28 81 00
 Courriel : Jean-Christophe.Fauroux@ifma.fr

INSTITUT PASCAL
 CNRS
 IFMA
 UNIVERSITÉ CLERMONT-FERRAND
 thinkMOTION
 ICTPSP
 DMG-LIB

Madame, Monsieur,

Nous souhaitons vous informer de la mise en ligne de DMG-Lib ([Digital Mechanism and Gear Library](http://Digital.Mechanism.and.Gear.Lib.org)), la plus importante base de données au monde consacrée à la théorie des machines et aux mécanismes, avec plus de 60 000 fiches disponibles. Cette bibliothèque est accessible en ligne. Vous y trouverez plus de 2 000 modèles de mécanismes, 1 600 descriptions de mécanismes, 1 000 modèles CAD, 35 000 images ainsi qu'un fond textuel considérable (10 000 livres et articles) et de nombreux autres contenus relatifs machines et accessibles sur www.dmg-lib.org. Veuillez trouver plus d'information ci-dessous.

DMG-Lib est une base de données en ligne qui vous servira pour vos futures recherches et travaux de conception afin de trouver des solutions concrètes pour générer des mouvements. Elle comporte un vaste catalogue de modèles de mécanismes et engrenages ainsi que des outils de recherche visuelle dans tous les documents par leurs sémantiques, qui s'avèrent précieux pour votre travail de conception au quotidien.

Initialement créée par plusieurs universités allemandes (Ilmenau, Aachen), la base DMG-Lib a une vocation européenne. Les récentes avancées obtenues grâce au projet européen thinkMOTION ont permis d'y associer des partenaires français (IFMA Clermont-Ferrand), espagnols (Bilbao), italiens (Cassino) et roumains (Timisoara). Vous trouverez en page 2 du présent courrier une présentation du projet transmise par le Pr. Burkhard CORVES, de l'université RWTH d'Aachen.

Vous pouvez encourager DMG-Lib de différentes façons :

- En contribuant à la base de données en nous envoyant des informations techniques sur vos machines et mécanismes (livres, notes, notes, images, photos, vidéos, animations, CAO...). Ces informations doivent être libres (transfert de droits). En procédant ainsi, vous faites également connaître votre gamme de produits, à la fois des experts du projet mais aussi du grand public qui consulte la base de données.
- En vous inscrivant à l'association DMG-Lib, qui a pour but de promouvoir le développement de cette base de données consacrée aux machines et mécanismes. Le formulaire d'inscription est disponible en ligne.
- En consultant la base puis en nous faisant part de votre avis, par le biais du questionnaire ci-joint.

Nous remercions votre écoute pour répondre à vos questions et vous serions très reconnaissant de bien vouloir remplir le questionnaire ci-joint et nous le transmettre par retour du courrier (électronique ou postal).

Avancing Together

Avec nos meilleurs salutations
 au nom de l'équipe française du projet thinkMOTION
 Jean-Christophe FAUROUX

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Informations complémentaires sur DMG-Lib
 Transmise par l'équipe allemande de l'Université RWTH d'Aachen

La bibliothèque de machines et mécanismes à engrenages DMG-Lib est une base de données très performante pour collecter, stocker et présenter tous types d'informations et de connaissances en rapport avec la cinématique et l'histoire des machines. En particulier, DMG-Lib contient des documents textuels, des images, des descriptions de mécanismes, des films, des animations interactives, des modèles xAO... permettant de comprendre le fonctionnement et tous les détails des mécanismes considérés. DMG-Lib est librement accessible en ligne.

Dans le cadre du grand projet « Europe numérique », la Commission Européenne souhaite créer une grande bibliothèque numérique (Europeana), qui non seulement regroupe des ressources culturelles européennes mais permettra de les présenter et de les conserver pour les générations futures. Afin d'enrichir Europeana avec des données de valeur aussi bien culturelle qu'historique, plusieurs projets ont vu le jour. L'un d'entre eux se nomme thinkMOTION.

thinkMOTION – De DMG-Lib à Europeana

Puisque les plus grands succès technologiques passés et présents constituent une part significative de la culture européenne, le projet thinkMOTION a pour objectif d'enrichir les contenus d'Europeana dans ce domaine. Au sein du projet thinkMOTION, les contenus de DMG-Lib sont transférés vers Europeana. Mieux encore, la taille de la base de données DMG-Lib a été accrue de 60 000 items supplémentaires au cours du projet, collectés et numérisés entre 2010 et 2013.

Le projet s'appuie sur un consortium de six partenaires et cinq pays :

The project consortium consists of the following six partners from different European countries:

- Université Technologique d'Ilmenau, Allemagne
- Université d'Aachen RWTH, Allemagne
- Université Polytechnique de Timisoara, Roumanie
- Université de Cassino, Italie
- Université du Pays Basque, Espagne
- IFMA, Clermont-Ferrand, France

L'association DMG-Lib

L'association DMG-Lib a été créée pour garantir la pérennité de la base de données du même nom. Sa vocation est d'encourager les progrès de la science, de la recherche et de l'éducation, tout particulièrement dans le domaine de la technologie et des machines. Si vous êtes intéressé, vous pouvez vous inscrire en tant que particulier ou qu'organisme public ou privé en utilisant le formulaire d'inscription en ligne.

Kind regards,
 Univ.-Prof. Dr.-Ing. Burkhard Corves

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Questionnaire sur DMG-Lib
<http://www.dmg-lib.org>

- Connaissez-vous déjà DMG-Lib avant de lire ce document ?
- Avez-vous pu consulter les différents types de contenus (vidéos, animations, etc.) ?
- Quels autres documents vous semblerait-il pertinent de rajouter pour présenter des mécanismes ?
- Que pensez-vous du site web (clarté, ergonomie, etc.) ?
- Avez-vous des suggestions pour le rendre le site web plus performant ?
- Lors des recherches de mécanismes, avez-vous rapidement trouvé ce que vous cherchiez ?
- DMG-Lib vous a-t-il déjà été utile ?
- Je souhaite devenir membre de l'Association DMG-Lib. Merci de m'envoyer un formulaire d'enregistrement.
 Oui, je veux devenir membre Non, je ne veux pas devenir membre
- Merci de bien vouloir m'envoyer la lettre d'information
 Oui, je veux m'inscrire Non, je ne veux pas m'inscrire
- Autres commentaires :

Fig. 21: Request to the stakeholders: French