TRAIL researcher's charter

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1. BACKGROUND

1.1 The artificial intelligence revolution

Artificial intelligence (AI) represents a major transformation opportunity for society and the sustainable well-being of citizens. Based on data acquisition and information-processing algorithms, processes in many sectors can be made more efficient in terms of:
- quality, efficiency and relocation of products and services;
- more economical use of resources;
- increased personalization;
- speed of decision making.

Many examples exist in medicine, media, mobility, industrial production, energy, governance and education. These developments have been made possible by many years of academic research in AI. The research effort must now continue to transform the promises of AI into realities accessible to society as a whole.

1.2 The TRAIL consortium

The founding members of TRAIL are five universities (UCLouvain, ULB, ULiège, UMONS, UNamur), four Accredited Research Centers (Centre de Recherche agréés, CRAs) (CETIC, Cenaero, Multitel, Sirris), Digital Wallonia (Agence du Numérique, AdN) and the federal collective AI4Belgium. A Memorandum of Understanding (MoU) was signed on August 31, 2020. The University Saint-Louis-Brussels joined the initiative in 2021. This pact of understanding, as well as the general collaboration agreement which followed, explain the ambition of TRAIL, articulated around 3 interacting pillars:
- The TRAIL Institute, which aims to promote the creation of AI talent and to carry out world-class AI research in Wallonia and Brussels;
- The TRAIL Factory, a platform enabling an effective operationalization of technological bricks and methodologies of introduction to the new processes

induced by AI, and facilitating their economic impact;

- Services to companies which aim at capturing the needs and ideas coming from the economy (existing companies and entrepreneurs) and at facilitating the development of new products and services based on the technology ("bricks") developed by TRAIL.

TRAIL researchers work in a collaborative way on **Grand Challenges** led by the CRAs, which address major issues and collective needs of the socio-economic world.

A specific governance plan for the TRAIL ecosystem specifies the role and positioning of the ecosystem's stakeholders, as well as the missions and composition of the governance bodies.

By adhering to the "TRAIL Researcher's Charter", researchers join both a research community and an economic ecosystem. They benefit from an increased international visibility while reinforcing their socio-economic anchoring in Wallonia and Brussels.

2. TRAIL BENEFITS

2.1 A research community

The ambition of TRAIL is to gather a large community of researchers, supervised by professors from the 6 Belgian French-speaking universities as well as researchers from 4 CRAs, united by a firm commitment to develop a trusted artificial intelligence at an international level of excellence.

TRAIL researchers will exchange during dedicated seminars, will benefit from a privileged access to TRAIL workshops (a workshop took place in Paris in September 2021, for instance) and will be encouraged to collaborate on research projects or international competitions. The FNRS doctoral school "Computational Intelligence and Learning" (CIL), for example, is directed by TRAIL faculty members. Its programs will therefore be strongly guided by TRAIL's areas of interest. These courses lead to credits in the doctoral curriculum of the universities of Fédération Wallonie-Bruxelles (FWB).

2.2 An AI ecosystem in Wallonia and Brussels

TRAIL offers researchers a privileged access to the Walloon and Brussels socio-economic actors via partners present all along the AI economic value chain.

The [LiEU Network](#) (Liaison Entreprises-Universités) advises and trains TRAIL researchers on intellectual property and technology transfer of public research results.

The CRAs are leading Grand Challenges addressing collective AI needs of companies in various fields: healthcare, industry 4.0, energy, media, mobility, large information spaces (satellite imagery), etc. These Grand Challenges are open to TRAIL researchers who collaborate to develop solutions that are then shared primarily with local companies. Some research funding schemes such as the ARIAC funding by the Service Public de Wallonie Recherche (SPW Recherche) (2021-2026 period) make participation in at least one of these TRAIL Grand Challenges mandatory (see Section 3.3).

In addition, the CRAs introduce researchers to software development and deployment practices for the easy appropriation of research results by companies, via software contributions ("bricks") uploaded to the TRAIL Factory platform. The CRAs also establish links with the European Digital Innovation Hubs (DIH) of which they are members.

Through their TRAIL membership, researchers join the [DigitalWallonia4.ai](#) program led by Digital Wallonia and the companies that contribute to the program, in particular those of the Infopôle ICT Cluster or the so-called "AI providers" of [Réseau IA](#). The TRAIL research themes feed events such as Digital Wallonia's Carrefours de l'IA, which bring together researchers and companies on a monthly basis.

TRAIL researchers receive privileged access to the events and actions of the [AI4Belgium](#) consortium, which promotes AI to Belgian and European companies and public services.

Although its center of gravity is currently in the Walloon Region, TRAIL is in close contact with socio-economic bodies of the Brussels-Capital Region (Hub.Brussels, Innoviris). Several members of TRAIL are also active in the Brussels-Capital Region (ULB, UCLouvain, Université Saint-Louis-Bruxelles, SIRRIS).

2.3 Visibility

TRAIL forms a common banner under which researchers can rally.

TRAIL researchers benefit from TRAIL's communication structures, including an updated website, a presence on social networks and regular internal and external

communications (newsletters, researcher of the month, latest publications, seminars, etc.). Each researcher who has adhered to the "TRAIL Researcher's Charter" has a profile on the TRAIL website, lists his or her publications and is included in the TRAIL databases.

TRAIL researchers include the TRAIL logo on their communication materials when appropriate and have the possibility to use TRAIL-specific presentation templates.

They can use the TRAIL affiliation in their publications and communications (as is done by Mila researchers in Quebec).

TRAIL researchers have access to the TRAIL Factory. They can personally contribute "technological bricks" to the platform in the form of documented and formatted software contributions for a later rapid appropriation by companies, in consultation with their Technology Transfer Office. These bricks are the result of their research, whether this research is directly linked to a Grand Challenge (see above) or not.

3. TRAIL COMMITMENTS

One important rule remains applicable: the requirements of the funding body (SPW-Recherche, FNRS, etc.) financing the researcher and the rules of the institution employing the researcher (universities, FNRS, etc.) always take precedence; no TRAIL rule can contravene them. For example, an acknowledgement to TRAIL in a communication (publication or other) cannot replace the explicit mention of the research funding as generally required by the funders.

3.1 Confidentiality

Unless otherwise stated, information and documents exchanged within the framework of TRAIL shall be considered confidential. TRAIL researchers are called upon to be very careful about sharing and disclosing such information, especially when companies are involved. Specific documentation (confidentiality agreement, data transfer agreement...) must be considered on a case-by-case basis in order to preserve the confidentiality of the information exchanged, to define the use that can be made of it and more generally to preserve intellectual property rights.

3.2 Values and visibility

TRAIL researchers actively participate in the promotion of TRAIL.

They mention TRAIL in the acknowledgements of any publication.

They keep their profile on the TRAIL website up to date, inform TRAIL of any intervention related to TRAIL (seminars, conferences, trade fairs, etc.).

TRAIL researchers are ambassadors of Wallonia, of the Digital Wallonia program and of the Brussels-Capital Region. When staying abroad for three months or more, they contact the local Wallonia-Brussels International (Wallonie-Bruxelles International, WBI) office or the Walloon Export Agency (Agence wallonne à l'exportation, AWEX).

TRAIL researchers work to develop a trusted AI, accessible to the greatest number and benefiting the entire socio-economic fabric of Wallonia and Brussels. They commit to following the "Ethics guidelines for trustworthy AI" of the European Commission. The concrete implementation of these guidelines is under consideration by AI4Belgium and the CLAIRE network.

3.3 Commitments specific to the ARIAC by DW4AI project

A first project has been implemented in the framework of the DigitalWallonia4.ai plan of the Walloon Region, namely the "ARIAC by DigitalWallonia4.ai" (research agreement n°2010235). It is funded by SPW-Recherche over the period 2021-2026 and includes the Universities (UCLouvain, ULB, ULiège, UMONS, UNamur) and the Accredited Research Centers (Cenaero, Cetic, Multitel, Sirris).

ARIAC by DigitalWallonia.ai (also referred to as ARIAC or ARIAC by DW4AI) aims at creating software tools based on trusted artificial intelligence that will offer a competitive advantage to the Walloon industry, including its four leading sectors (the "4M"), Medicine, Media, Mobility and Manufacturing, but also to the energy, governance and education sectors.

Researchers funded by ARIAC by DW4AI are required to adhere to the "TRAIL Researcher's Charter".

Some TRAIL commitments are more demanding in ARIAC in terms of economic impact and external communication.

3.3.1. Economic impact

As stipulated in the ARIAC by DigitalWallonia4.ai research agreement, Art. 27.3, Task 5 ("TRAIL Factory and Grand Challenges"), ARIAC researchers are required to dedicate 15% of their working time, calculated over the total duration of their ARIAC

contract, to AI economic impact efforts. These 15% include all steps useful to the industrialization of research and carried out in order to facilitate the appropriation and integration of results by socio-economic actors.

These 15% must include participation in at least one collective Grand Challenge led by a CRA. ARIAC researchers make their best effort to actively participate in the Computational Intelligence and Learning (CIL)-TRAIL doctoral school, which will also earn them doctoral training credits. Other efforts may include but are not limited to:
- the contribution and/or refactoring of technological bricks (development, containerization, deployment...) on the TRAIL Factory;
- active participation in seminars and training courses such as those offered by the doctoral schools, provided that a clear socio-economic component be present in the program.

3.3.2. Communication (Values et visibility)

ARIAC researchers are required to use the TRAIL affiliation in their scientific communications, in addition to their usual affiliation, in the order of their choice.

They use the TRAIL by Digital Wallonia / SPW-Recherche logos.

In any publication, they mention the support of Wallonia by the formula "This work was supported by Service Public de Wallonie Recherche under grant n° 2010235 - ARIAC by DIGITALWALLONIA4.AI".