NGI

NEXT GENERATION INTERNET INITIATIVE - SEARCH AND DISCOVERY TECHNOLOGIES

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Latest update:

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NGI AT A GLANCE

The Next Generation Internet (NGI) initiative aims to shape the development of the Internet of tomorrow into an Internet of Humans that responds to people's fundamental needs, including trust, security and inclusion, and reflects the European values and norms.
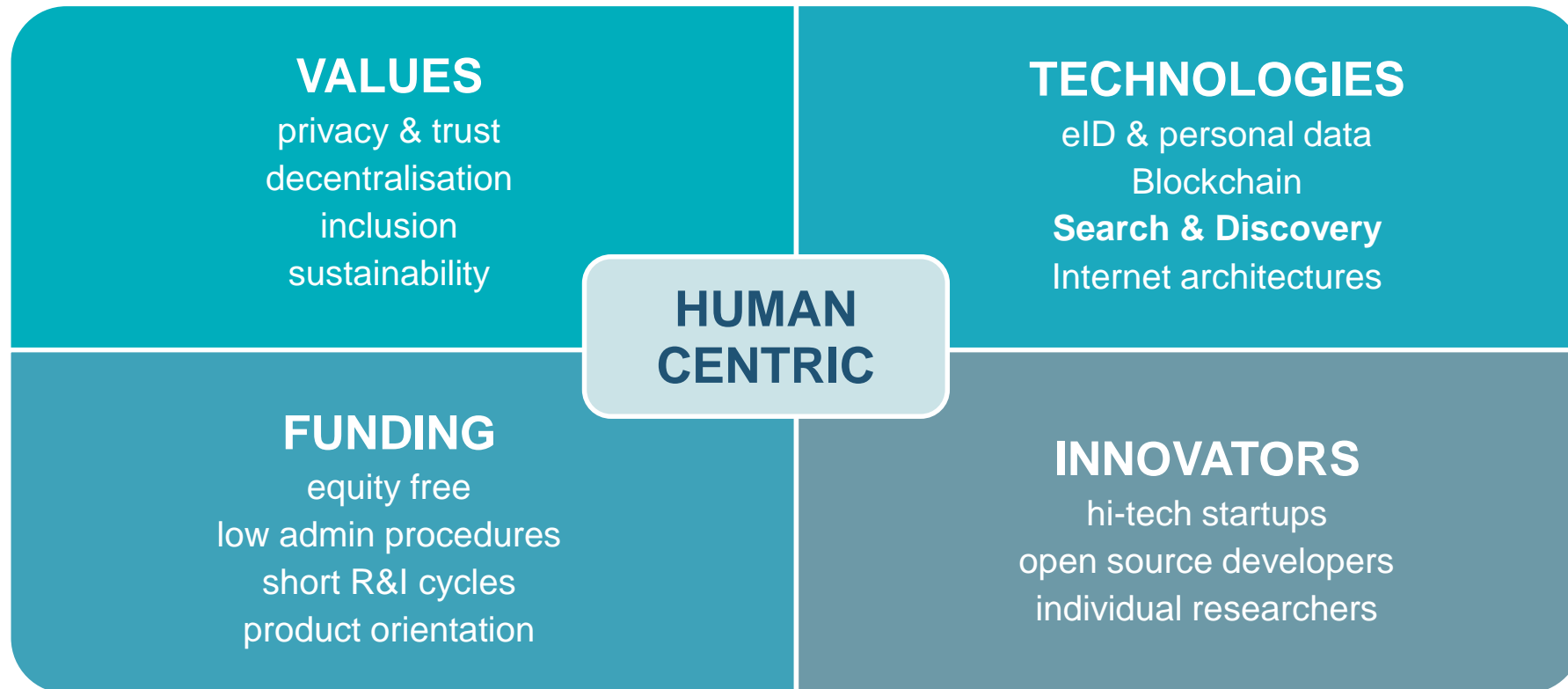
Restoring **trust**

CHALLENGES

- Protect personal data
- Ensure privacy and security
- Combat disinformation online
- Guarantee access and freedom of choice
- Respect fundamental rights
- Enforce ethics and sustainability by design

€250m
between
2018 and 2020

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NGI: IMPLEMENTATION STRATEGY

VALUES
privacy & trust
decentralisation
inclusion
sustainability

TECHNOLOGIES
eID & personal data
Blockchain
Search & Discovery
Internet architectures

HUMAN CENTRIC

FUNDING
equity free
low admin procedures
short R&I cycles
product orientation

INNOVATORS
hi-tech startups
open source developers
individual researchers

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NEXT GENERATION SEARCH AND DISCOVERY: A LOT OF WORK AHEAD

Key areas of work:

○ Achieve more **agency**, **autonomy** and **resilience** through **open source** technologies for search, avoiding monopolisation and pitfalls of personalisation such as echo chambers

○ Implement **alternative filtering and ranking algorithms** to better assist end-users

○ Link, enrich, understand and discover **content and communities** through use of **open standards** for annotation and metadata;

○ Create safe **decentralised market places** where anyone has the **same opportunities**

○ Improve usability of non-traditional modalities of search, such as **voice search**

○ **Increase** users **privacy**

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NGI ZERO DISCOVERY

Technologies improving search and discovery

- Total budget for projects 2018-2021: **€5.6m**

- Projects focus on new ideas and core open source technologies improving search and discovery.

- **57 ongoing bottom-up projects** (April 2020) and growing, on different technology layers: from **network infrastructure** to **middleware**, from **Data&AI** to **services** and **applications**

- Funded projects include:

  - **Searx**: a metasearch engine that will soon have the ability to integrate your own **private search** domains. **Mailpile** will integrate your private email search into that, and so will **Nextcloud**.

  - The **Green Web Foundation** will make it possible to elevate search results from ecofriendly hosters.

  - **minedive** is an experimental P2P privacy conscious distributed search engine embedded in a browser extension.

  - **NextApps**, creators of **flexsearch** are experimenting with new ranking algorithms in **Tantum Search**

  - The **DAT Foundation** is building an accessible set of tools for creating secure community-run and private file storage on the DAT protocol.

SEARCH AND DISCOVERY – IDEAS FOR THE FUTURE

(Results of the workshop on search and discovery 13-Nov 2019)

- **European "Open Search" research programme:** a large open search-focused research programme, which would fund open source solutions in this space

- **European web index:** coordination and funding for the development of a sovereign European web index. Even many of the alternative, more privacy-sensitive search engines still rely on the web indexes of the large incumbents.

- **Semantic web:** Continued investment in making data and information online more machine readable will improve the quality and efficiency of search

- **User-centric:** With more and different types of devices entering the market, we will need to rethink how we design solutions and new tools - and put the user at the centre of these new design approaches (not the device)

- **Data control:** Fund research providing a really easy way for a user to control what data he/she will share across websites and applications

- **Alternative recommendation/ranking algorithms:** Move beyond "page rank" systems based on opaque and profit-optimised algorithms

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NGI IN HORIZON EUROPE

- Horizon Europe vision: a sustainable, fair and prosperous future for people and planet based on European values

  - Tackling climate change

  - Helping to achieve Sustainable Development Goals

  - Boosting the Union's competitiveness and growth

- NGI is fully in line with this vision; it is an intervention area in:

  - Pillar 2 'Global Challenges and European Industrial Competitiveness'

  - Cluster 'Digital, Industry and Space'

- 2020: Strategic Plan 2021-2024 >> Work programme 2021-2022

- 2021: Start of Horizon Europe (first Calls for Proposals)

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AND GET INVOLVED!

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THANK YOU!