# Official launch of www.botanicalcollections.be

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#### herbaria in numbers

3001 active herbaria worldwide

ca. 387 million herbarium specimens

681 herbaria in Europe

ca. 178 million herbarium specimens

10 herbaria in Belgium

ca. 5.2 million herbarium specimens







#### herbarium BR

13<sup>th</sup> largest herbarium

3.5 million herbarium specimens

worldwide coverage

reference collection for

- central Africa
- South-America
- Belgium

1724 - present

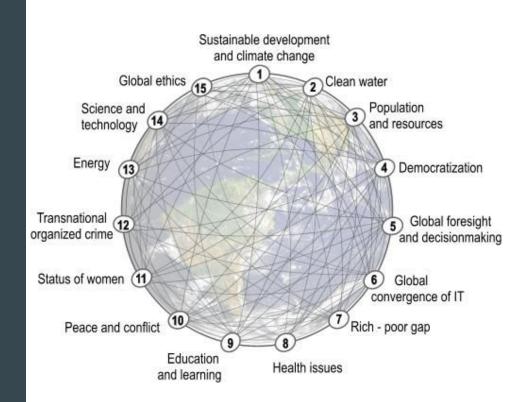








The millenium project's 15 global challenges for humanity



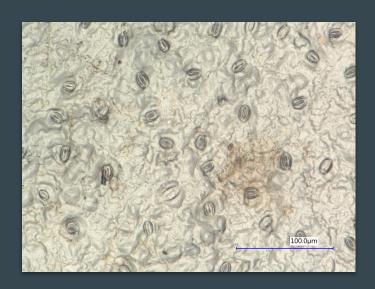
http://www.millennium-project.org/

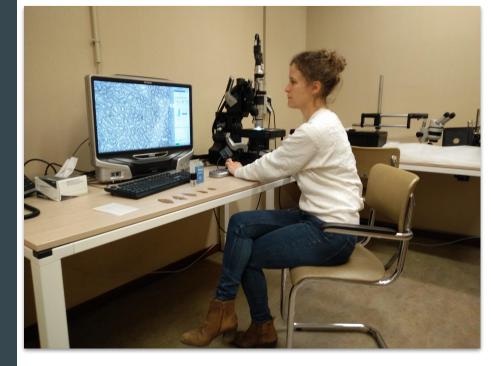






#### 1. Climate change





COBECORE (talk Sofie Meeus)









### 2. Protecting the world food supply

- Banana research



#### - Coffee research









3. Conservation of biodiversity

TrIAS (talk Sonia Vanderhoeven)



#### LIFE Project (Sandrine Godefroid)













#### 4. Sustainable development

Edible mushrooms













Big Picnic

5. Education & learning









Botanical research relies on herbaria as a core infrastructure of botany







### Problem

- Information hidden in herbaria
- Only accessible by an elite
- Access is holding up science









#### Solution



Digitisation and opening up data for everyone

2015-2017

Financed by the Flemish Government

1.65 million Euro







### 1. Optimize digitisation infrastructure

- 4 installations
- > 40,000 images so far
- Freely available to others



# 2. Outsource the digitisation of the entire Belgian and African collection

1.2 million specimens







### Preparation of the collection

- 1.2 million specimens
- 15 technicians
- Many volunteers
- 1.5 years









### Information Technology

- IT infrastructure
- automated quality control
- 133 TB archived at VIAA
- image back up



















### Imaging



- 1.2 million specimens
- 5000 images per day
- finished in 1 year



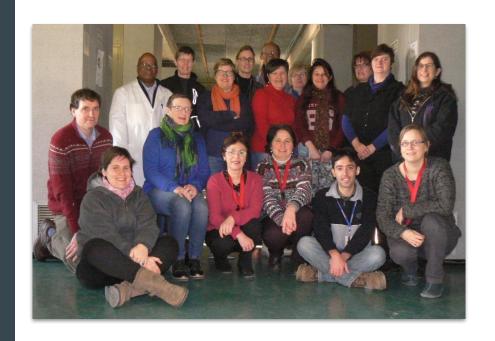






### In-house label data transcription

- 15 technicians
- volunteers and students
- > 400 000 specimens
- 2 years and ongoing









### Outsourced label data transcription

- by Alembo Picturae
- ± 30 000 taxon names
- ± 585 000 specimens
- 8 months









### Label data through crowdsourcing

- launched in November 2017
- > 130 volunteers (and growing)
- > 16 000 tasks transcribed so far







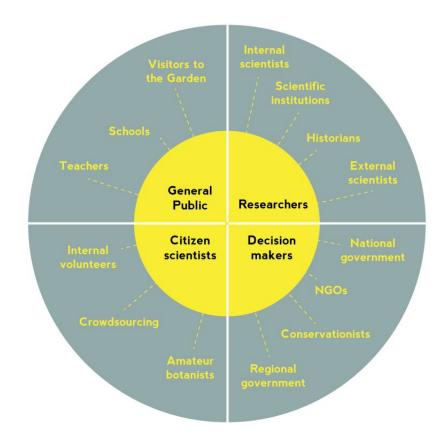




### User requirement analysis













#### www.botanicalcollections.be



Herbaria are part of the global research infrastructure of plant sciences. They contain carefully documented specimens of plants preserved indefinitely for research. Scientists use these specimens to define and authenticate the scientific names given to plants, to identify plant species and to study the variation of characters within and between species, to help us understand plant evolution and why plants have distinct distributions.

Herbaria are now moving into the digital age. Digitization is revolutionizing access to specimens, making images and data accessible to everyone, regardless of location. Moreover, digitization also promises to expand the scope of research that can be done. Data can be gathered together from many places and analysed on a large scale. Indeed, we are only just beginning to discover all the valuable research which we can do by means of these data.

If you have any questions about the website or our collections please contact the curator team (curator@plantentuinmeise.be).









#### Botanical collections Home Search Links

CLEAR FILTERS

Q Type anything..

Abatia stellata BR000001334626

BR0000013346263

Abatia tomentosa

BR0000013346294

Abatia tomentosa

BR0000013475826

Abatia tomentosa

BR0000013475833

Abatia tomentosa

BR0000013346287

Abatia tomentosa

BR0000013475840

Abatia tomentosa

BR0000013346300

Abatia tomentosa

BR0000013346270

Abelia grandiflora

BR0000009354692

Abelia grandiflora

Name

Collector number

S.N.

482

1101

788

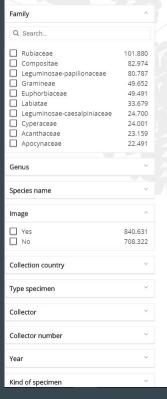
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947

481

S.N.

1.	1.548.953 results found			
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<b>\$</b>	Collector \$	Family \$	Country \$	Date <b>•</b>
	Lillo Miguel	Salicaceae	=	1908-02-17
	Widgren J.F.	Salicaceae	•	1845
	Regnell A.	Salicaceae	<b>♦</b>	1870-01-21
	Raben F.C.	Salicaceae	<b>♦</b>	s.d.
	Ackermann	Salicaceae	<b>◆</b>	s.d.
	Raben F.C.	Salicaceae	<b>♦</b>	s.d.
	Widgren J.F.	Salicaceae	<b>♦</b>	1845
	Widgren J.F.	Salicaceae	<b>♦</b>	s.d.





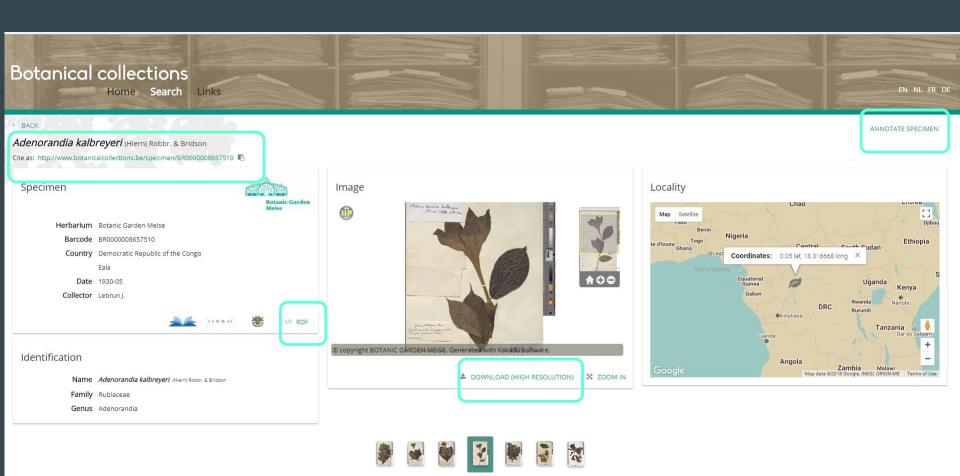


Linnaeaceae

Linnaeaceae



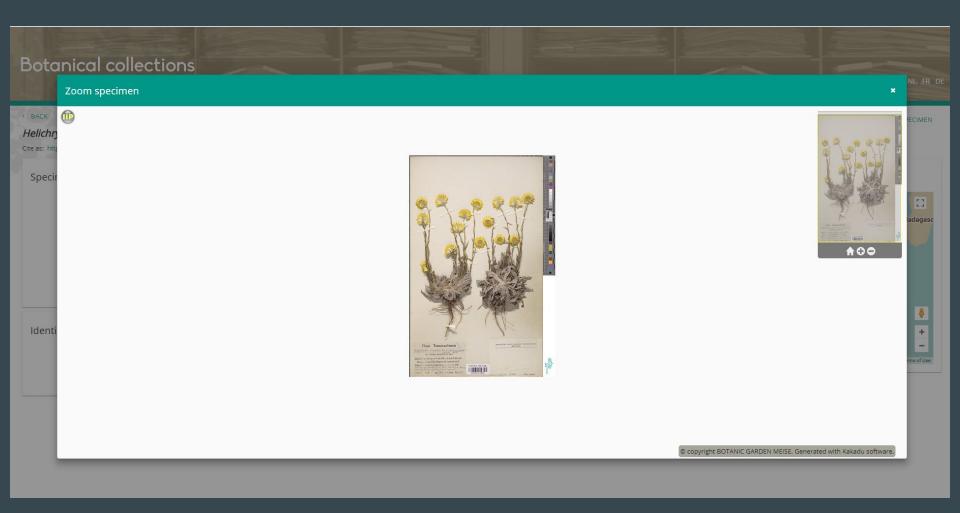
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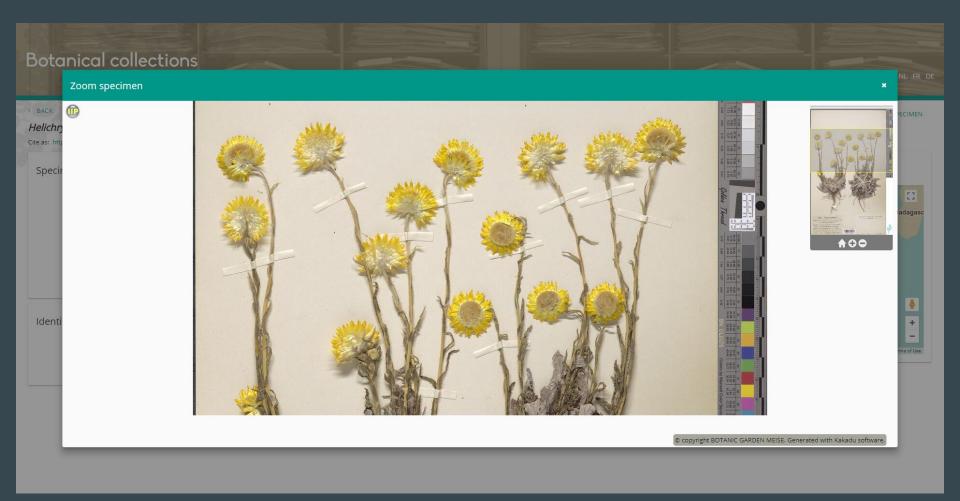








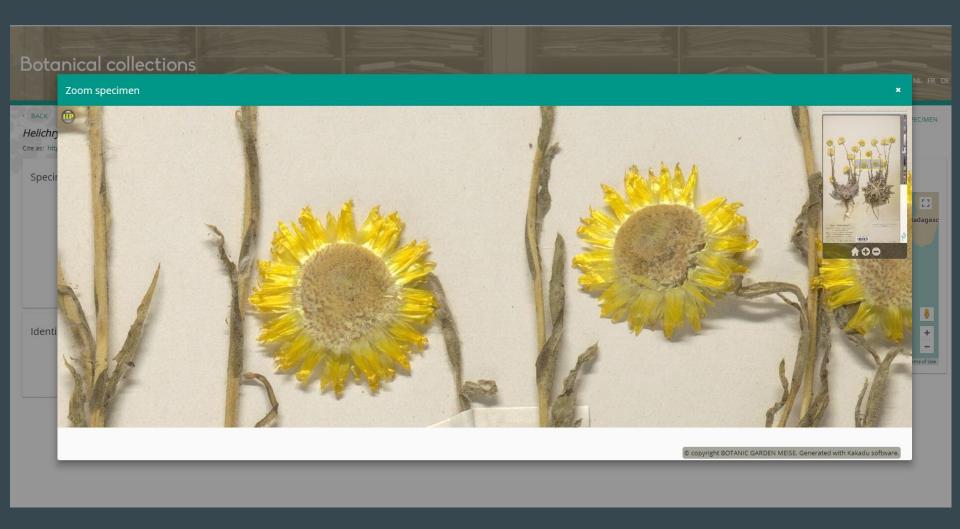


















### our vision on the future

- Digitisation of the entire collection
- Adding other herbaria & collections
- Available on GBIF & Europeana

## Botanical collections

- global reach
- new research
- new services to users
- monitoring use of our collections











### Thank you!







