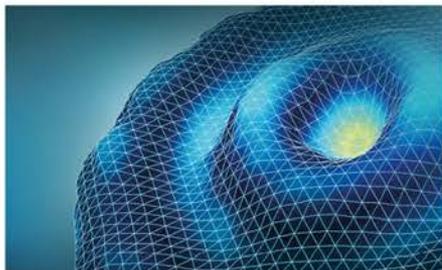


# Shaping the future

since 1967

# De pionnier A leader du marché



**Vibrométrie**



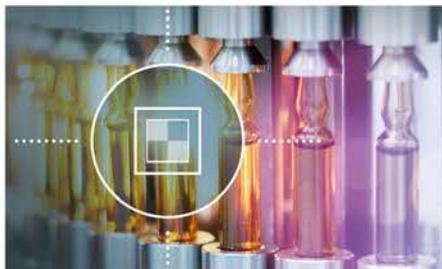
**Vélocimétrie**



**Topographie de surface**



**Procédés Analytique**



**Vision industrielle**

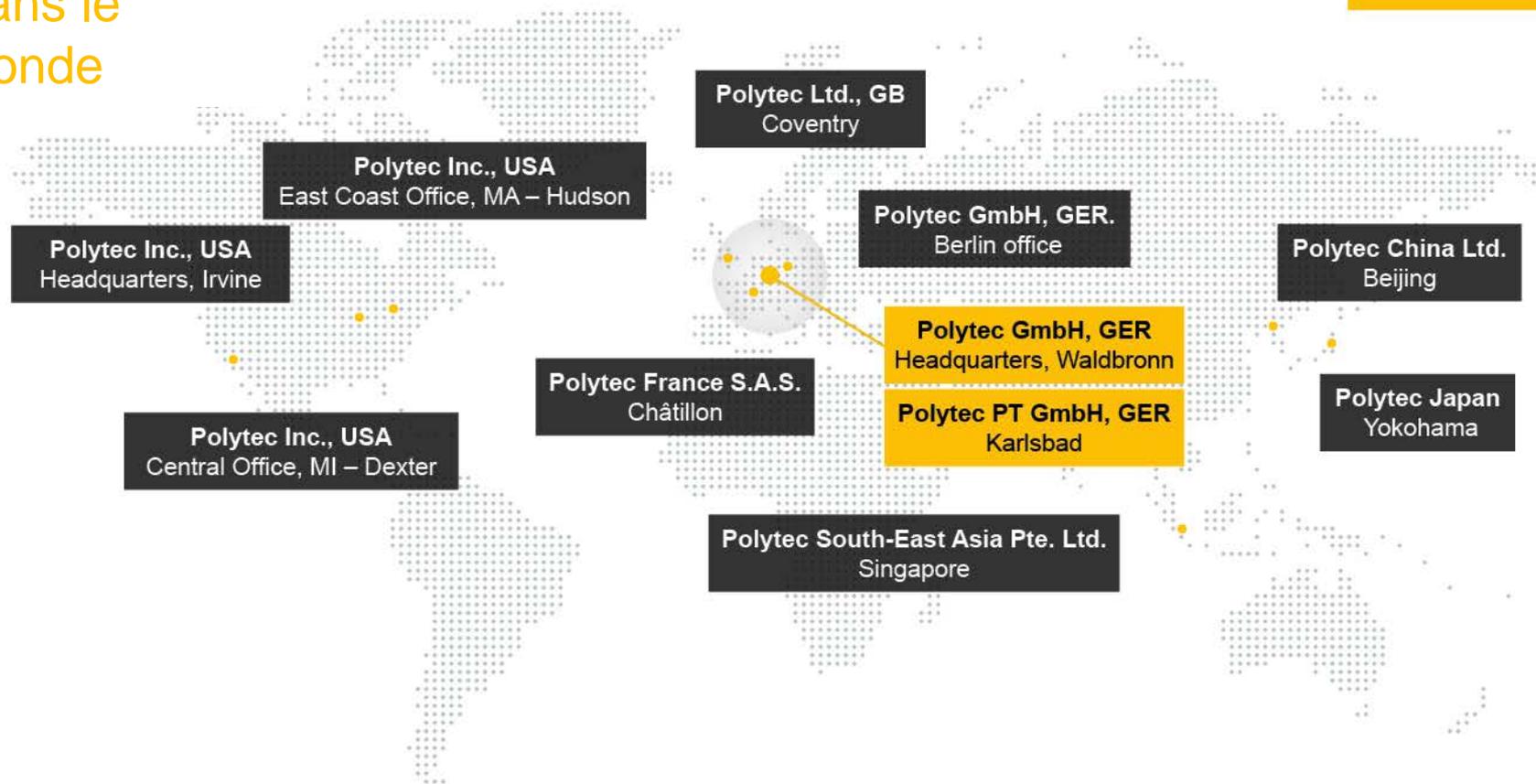


**Photonique**



**Polymères**

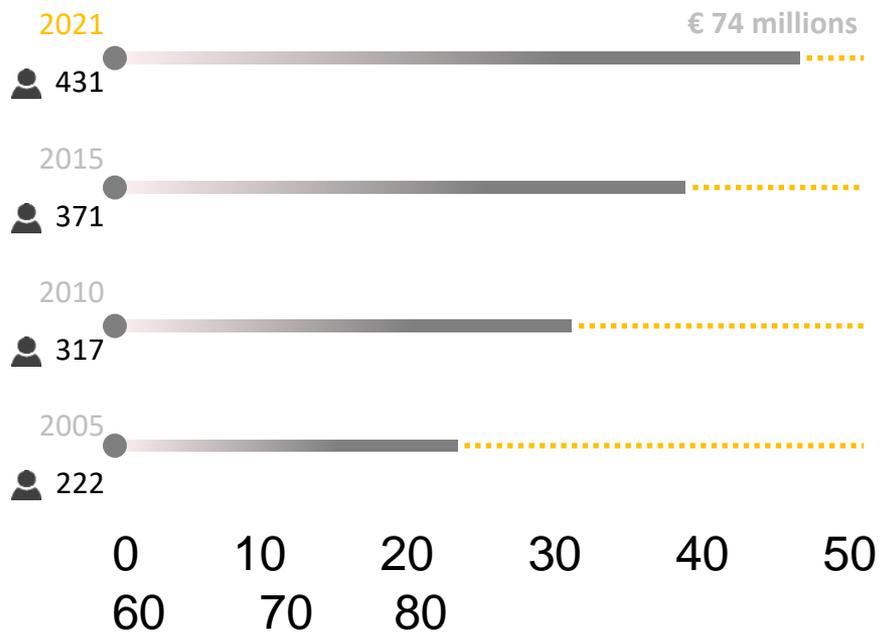
# Polytec Dans le monde



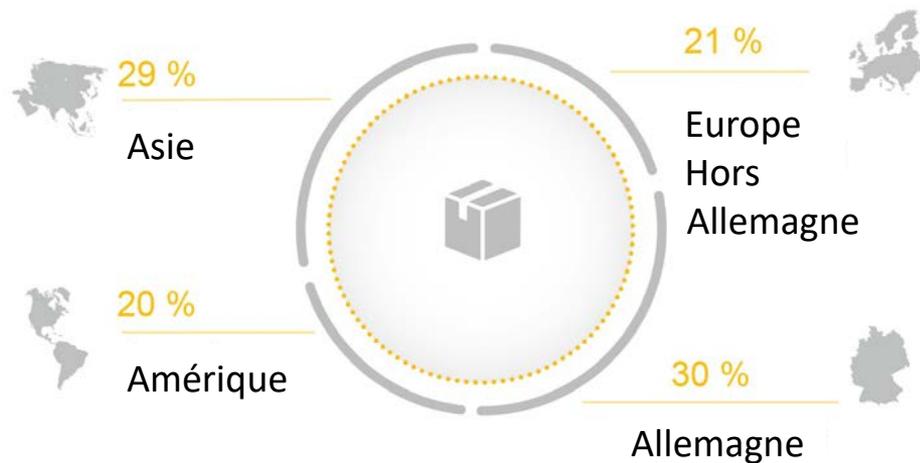
# Polytec continue de grandir

## Evolution

### Evolution du CA en millions d'euros



### Répartition des revenus en %



70% à l'export

1983

Création

15

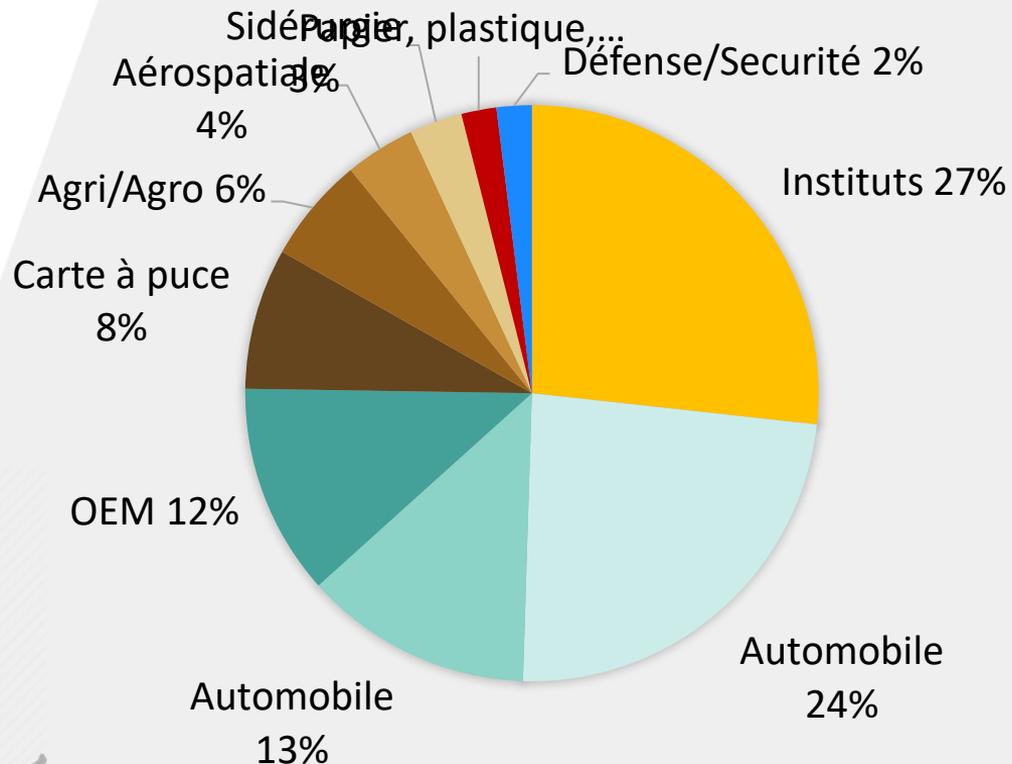
Personnes

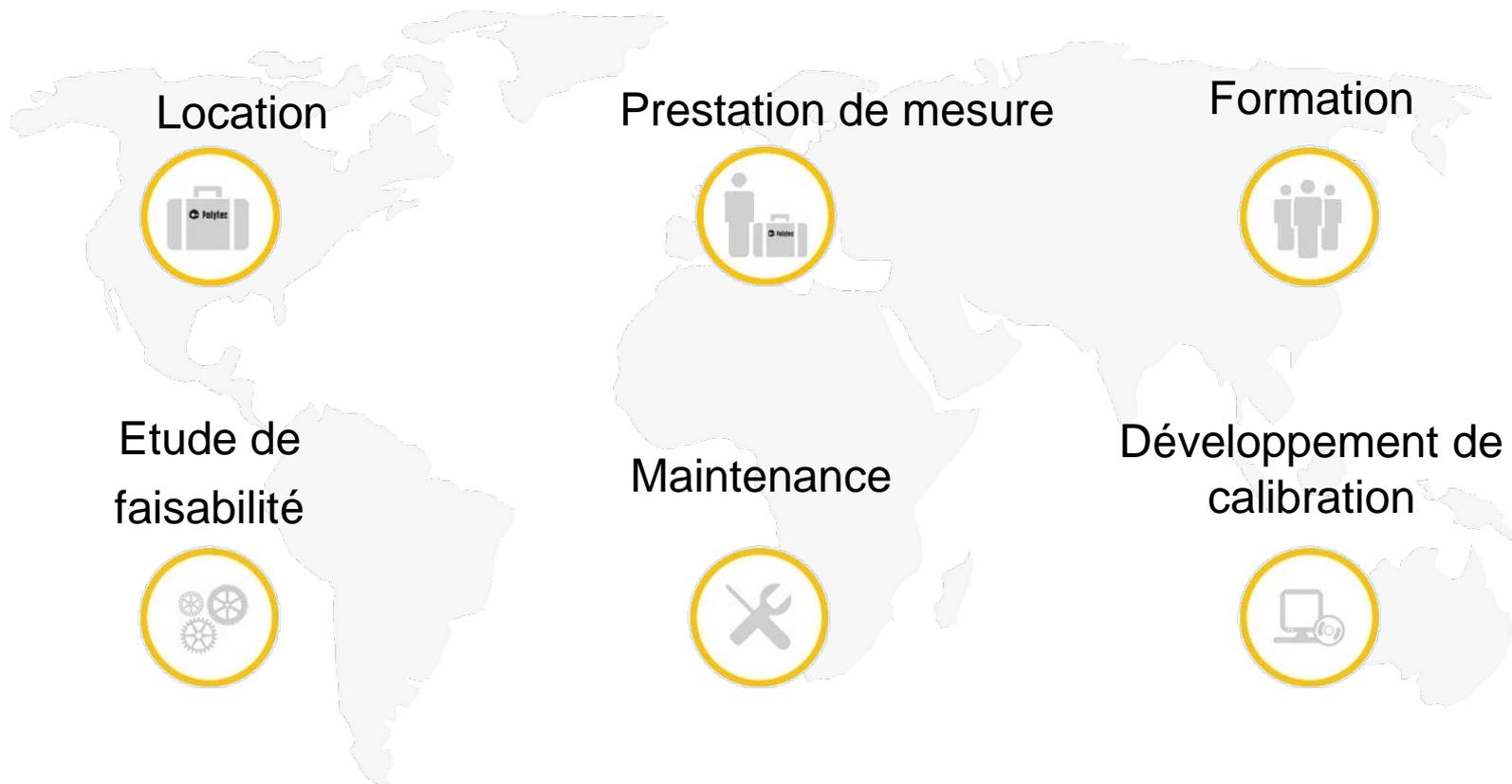
4,8

Millions d'euros

2014

Polytec Store





**Analytics – Photonics – Vision**

## **Polytec fournisseur de Briques Technologiques pour des solutions :**

- Spectrométrie NIR & UV-Vis
- Hyperspectral
- Mesure de Température Optique
- Capteurs IR
- Vision Industrielle
- Solution d'éclairages
- Microscopie Longue Distance de Travail
- Optical Shutter

# Analytics

# Spectromètre NIR - Polytec

- Applications « Terrains » : embarquée, on-line, process
- Modulaire et multiplexé
- Robuste
- Fiable



# Spectromètre NIR - IT Photonics

- Applications « Terrains » : embarquée
- Visible & NIR
- Solution intégrée
- Portable
- Calibrations

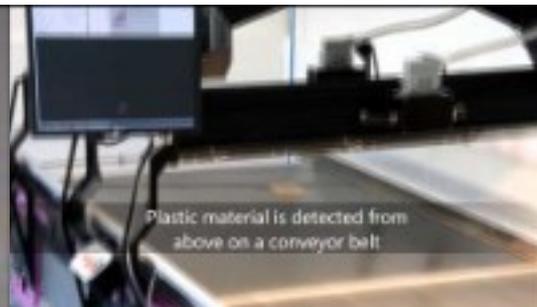
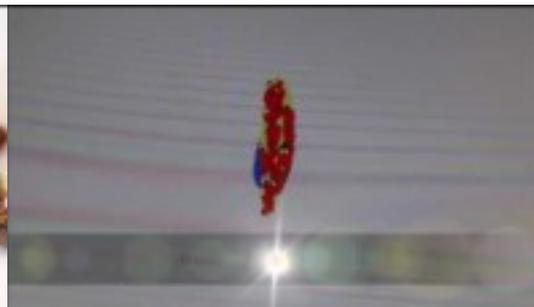
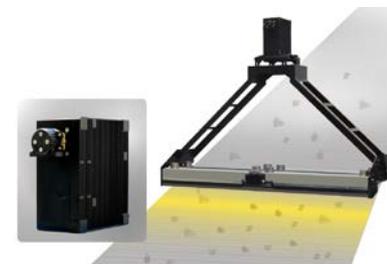


- DM: dry matter
- ASH: ash
- CP: crude protein
- EE: crude lipids
- CF: crude fiber
- aNDF: neutral detergent fiber
- aNDFom: neutral detergent fiber with ash correction
- ADF: acid detergent fiber
- ADL: acid detergent lignin
- AIA: ash insoluble in acid
- Starch: starch + glucides
- Sugars: sugars
- VFA: volatile fatty acid
- SOL\_CP: protein soluble in H2O
- NDIP: protein attached to NDF
- ADIP: acid detergent insoluble protein
- uNDFom: undigestible NDF at 240h
- Sieves 19 - 8 - 4 mm + Bottom
- Average Particle Length: medium geometric length of particles
- peNDF: physically effective fiber
- RFV: relative value of forage
- TKN: total Kjeldahl nitrogen
- NH4: ammonia
- VS: volatile solids
- NVS: non-volatile solids
- TOC: carbon
- P2O5: phosphorus
- K2O: potassium

|                           | Protein fractions |      |      |        | Fibrous fractions |      |     |     | Carbohydrates |        |        |        | Fermentative profile |             |        |    |   |     |     |    |    |     |     |   |    |
|---------------------------|-------------------|------|------|--------|-------------------|------|-----|-----|---------------|--------|--------|--------|----------------------|-------------|--------|----|---|-----|-----|----|----|-----|-----|---|----|
|                           | CP                | NDIP | ADIP | SOL_CP | CF                | aNDF | ADF | ADL | AIA           | uNDFom | aNDFom | Starch | WSC                  | ESC         | Sugars | pH |   | NH4 | VFA | DM | EE | NO3 | RFV |   |    |
| CORN SILAGE               |                   |      |      |        | ✓                 | ✓    | ✓   | ✓   | ✓             | ✓      | ✓      | ✓      |                      |             | ✓      | ✓  | ✓ | ✓   | ✓   | ✓  | ✓  | ✓   | ✓   | Silage of whole maize plant                               | SM |
| GRASS SILAGE              | ✓                 |      |      |        | ✓                 | ✓    | ✓   | ✓   | ✓             | ✓      | ✓      | ✓      |                      |             | ✓      | ✓  | ✓ | ✓   | ✓   | ✓  | ✓  | ✓   | ✓   | Silage of grass, leguminous and mature crops              | SE |
| CEREAL CROPS SILAGE       | ✓                 |      |      |        | ✓                 | ✓    | ✓   | ✓   | ✓             | ✓      | ✓      | ✓      |                      |             | ✓      | ✓  | ✓ | ✓   | ✓   | ✓  | ✓  | ✓   | ✓   | Silage of autumn-winter cereal crops                      | SC |
| SORGHUM SILAGE            | ✓                 |      |      |        | ✓                 | ✓    | ✓   | ✓   | ✓             | ✓      | ✓      | ✓      |                      |             | ✓      | ✓  | ✓ | ✓   | ✓   | ✓  | ✓  | ✓   | ✓   | Silage of whole sorghum plant                             | SS |
| CORN COB MIX SILAGE       | ✓                 |      |      |        | ✓                 | ✓    | ✓   | ✓   | ✓             | ✓      | ✓      | ✓      |                      |             | ✓      | ✓  | ✓ | ✓   | ✓   | ✓  | ✓  | ✓   | ✓   | Silage of corn cob mix                                    | PI |
| HIGH MOISTURE CORN SILAGE | ✓                 |      |      |        | ✓                 | ✓    | ✓   | ✓   | ✓             | ✓      | ✓      | ✓      |                      |             | ✓      | ✓  | ✓ | ✓   | ✓   | ✓  | ✓  | ✓   | ✓   | Silage of high moisture corn                              | PG |
| HAY AND DRY FORAGES       | ✓                 | ✓    | ✓    | ✓      | ✓                 | ✓    | ✓   | ✓   | ✓             | ✓      | ✓      | ✓      | coming soon          | coming soon |        |    |   |     | ✓   | ✓  | ✓  | ✓   | ✓   | Hay of grasses, leguminous and mature crops + wheat straw | HT |
| ALFALFA HAY               | ✓                 | ✓    | ✓    | ✓      | ✓                 | ✓    | ✓   | ✓   | ✓             | ✓      | ✓      | ✓      | coming soon          | coming soon |        |    |   |     | ✓   | ✓  | ✓  | ✓   | ✓   | Hay of dried and pre-dried Alfalfa                        | AL |
| HAY OF GRASSES            | ✓                 | ✓    | ✓    | ✓      | ✓                 | ✓    | ✓   | ✓   | ✓             | ✓      | ✓      | ✓      | coming soon          | coming soon |        |    |   |     | ✓   | ✓  | ✓  | ✓   | ✓   | Hay of dried and pre-dried grasses                        | HG |

# Caméra Hyper-spectrale – LLA Inst. GmbH

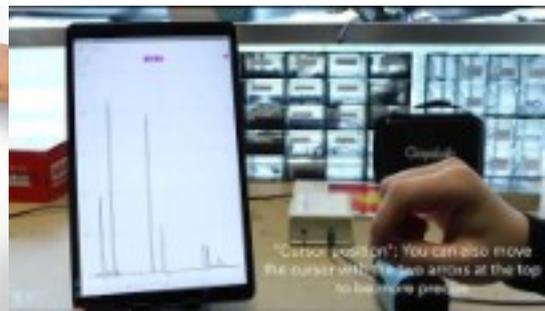
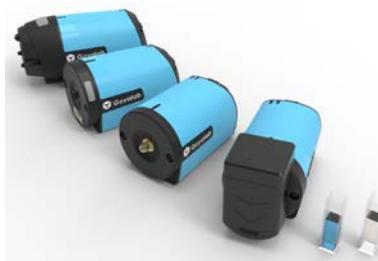
- NIR & VIS
  - Analyse en temps réel, sans contact
  - Analyse de localisation
  - Intégrable & Customisable
- Applications
    - Tri & Recyclage
    - Agri-Agro



# Spectromètres UV-Vis - Goyalab

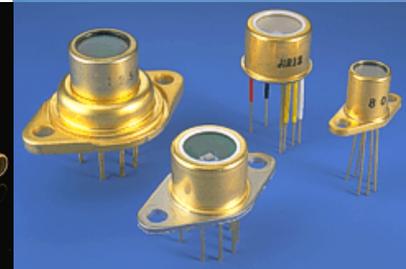
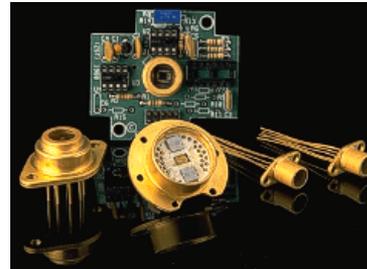


- Ultra compact
- Modulaire
  - Transmission
  - Réflexion
  - LED UV-A, UV-B
  - Laser



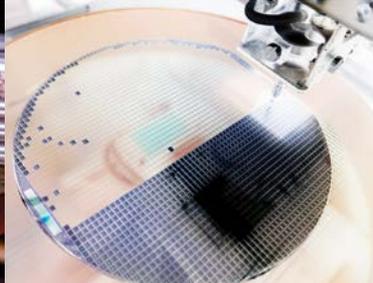
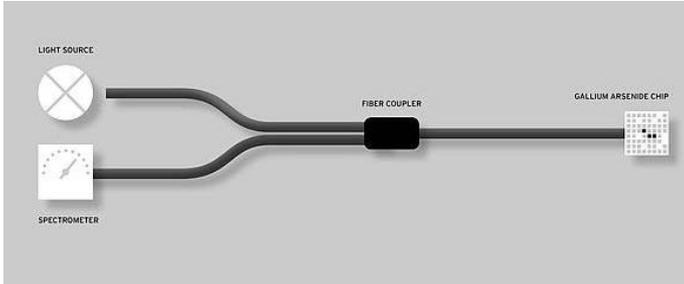
# Capteurs IR -Teledyne Judson Technologies

- Du Visible au VLWIR
- InGaAs, InSb, HgCdTe, InAs, Ge, and MCT
  
- Applications
  - Spectroscopie
  - Defense
  - Environnement
  - Imagerie (Microscopie, Hyper-Spectrale)



# Capteur de Température Optique - Optocon

- Capteur de température GaAs à fibre optique
- Complètement non conducteurs
- Immunisé aux rayonnements (RFI, EMI, RMN et micro-ondes)
- Large plage de mesure :  $-200^{\circ}$  à  $+300^{\circ}$
- Résiste aux environnements durs et corrosifs



# ***Merci pour votre attention***

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High-tech for research and industry  
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